State of Wisconsin **DEPARTMENT OF NATURAL RESOURCES** 101 S. Webster Street Box 7921 Madison WI 53707-7921

Scott Walker, Governor Cathy Stepp, Secretary Telephone 608-266-2621 Toll Free 1-888-936-7463



December 12, 2012

Michael Pieper Western Wisconsin Technical College 400 Seventh Street, P.O. Box C-908 LaCrosse, WI 54602

IP-WC-2011-42-00556

Subject: Water Quality Certification for the Angelo Dam Hydropower Project Monroe County,

FERC Project Number 13417-002-WI

Dear Mr. Pieper:

The WDNR has completed its review of the Angelo Dam Hydropower project, under FERC license 13417-002-WI, and has determined, subject to compliance with the conditions of the State Water Quality Certification, that the project meets these State standards. Enclosed is a State Water Quality Certification that conditionally approves the Angelo Dam Hydropower project.

Before you may begin your project, state law requires that you:

1. Publish this certification as a Class I Notice, at your expense, in the local newspaper.

2. Obtain, and send to me, an affidavit from the newspaper providing proof that the notice has been published.

This Certification becomes final 30 days after the date of publication, unless an objection to our certification is filed and a hearing is requested. We will contact you only in a hearing is requested. If you have any questions about your permit, please contact me at 920-387-7869 or cheryl.laatsch@wisconsin.gov.

Regards,

Cheryl Laatsch

WDNR Acting FERC Coordinator

CC:

Town of Angelo Jack Dittmar, Monroe County Highway Dept. Monroe County Zoning Stephen Doret, Mill Road Engineering Nick Utrup, US Fish and Wildlife Service River Alliance of Wisconsin

Attachments: Water Level Order Dated January 19, 1983

John Derinzy, ACOE Meg Galloway, Dam Safety Chief, WDNR Mark Stephenson, Dam Engineer, WDNR Mike Scott, WDNR Legal Services Dan Helsel, Regional Water Leader, WDNR Dave Pericak, Regional Water Reg, WDNR



BEFORE THE DEPARTMENT OF NATURAL RESOURCES

Application of Western Technical College for the Issuance of a Water Quality Certification, Angelo Hydroelectric Dam, Monroe County, Wisconsin, on the La Crosse River

IP-WC-2011-42-00556

Western Technical College, 400 7th Street, La Crosse Wisconsin 54602, filed an application with the Wisconsin Department of Natural Resources on January 24, 2011, under s. NR 299.03 Wisconsin Administrative Code and Section 401 of the Federal Clean Water Act, for a water quality certification associated with the licensing of the Angelo hydroelectric power facility, located at 17N 3W Section 7, Town of Angelo, Monroe County, Wisconsin.

BACKGROUND

The application including plans, project schedule, and technical design, was submitted to the Department on January 24, 2011. Completeness was determined on August 22, 2012 when FERC issued the Environmental Assessment. The Department approved the transfer of ownership of the Angelo Dam from Monroe County to Western Technical College on August 8, 2012. The purpose of the transfer is to allow Western Technical College to construct the necessary improvements to add hydropower to the dam. Western Technical College is the responsible party for the operation and maintenance of the dam and associated hydropower.

The proposed hydroelectric facility would have a proposed capacity of 205 kilowatts of power. The dam has a total length of 615.5 feet and is composed of a left earthen embankment, a concrete spillway and non-overflow structure, and a right earthen embankment. The left earthen embankment has a length of 400 feet and a maximum height of approximately 14 feet. The right earthen embankment has a length of 124 feet and maximum height of approximately 12 feet. The spillway and non-overflow section are constructed of reinforced concrete and have a total length of 91.5 feet. The spillway is 72.2 feet long and 9.6 feet high from the foundation level to its crest. The spillway has four, 13.5-foot-wide by 11.4 –foot-high bays each with 13.5-foot-wide by 6.9-foot-high steel tainter gates. The non-overflow section is 19.08 feet long, 20 feet high and 19.7 feet wide.

The reservoir has a surface area of 52 acres at elevation 793 feet mean sea level. The reservoir's storage capacity is 450 acre-feet at the dam's crest elevation of 795 feet sea level. The estimated hydraulic capacity for the project is 168 cfs at full load, and 32 cfs at minimum load. This project will operate in run-of-river mode.

The Department of Natural Resources issued a water level order dated January 19, 1983, (3-WC-82-809 WL). The Order is attached, and is part of the Water Quality Certification Conditions. The Order details the following requirements: 1) Normal water level of 793.20 feet USGS datum; 2) Maximum water level of 793.60 feet USGS datum; 3) Minimum water level of 793.00 feet USGS datum; 4) Minimum outflow of 48 cubic feet per second.

The WDNR has reviewed the application of Western Technical College for issuance of FERC License to install 205 kW hydroelectric generating unit, known as the Angelo Hydroelectric project. WDNR has reviewed and commented on the Environmental Assessment by FERC for this project. WDNR has made the determination that the proposed activity will comply with the State's water quality standards enumerated in s 299.04, Wis. Adm. Code, subject to compliance with the conditions specified in section "STATE WATER QUALITY CERTIFICATION CONDITIONS" below and certification is GRANTED. The certification contained here-in shall expire on the date of the expiration of the FERC license or upon revocation by WDNR.

STATE WATER QUALITY CERTIFICATION CONDITIONS

Wisconsin state water standards protect the public interest, which includes the protection of public health, welfare, and the present and prospective uses of all waters of the state for public and private water supplies, propagation of fish and other aquatic life and wild and domestic animals, and recreational purposes, and agricultural, commercial, industrial, and other legitimate uses. In all cases where the potential uses are in conflict, water quality standards shall protect the general public interest. These water quality standards serve as a basis for developing and implementing control strategies to achieve legislative policies and goals. Water quality standards serve as a basis for decisions in other regulatory, permitting or funding activities that impact water quality.

- 1. To preserve and enhance the quality of waters, standards are established to govern water management decisions. Practices attributable to municipal, industrial, commercial, domestic, agricultural, land development, or other activities shall be controlled so that all waters including the mixing zone and the effluent channel meet the following conditions at all times and under all flow conditions.
 - a. Substances that will cause objectionable deposits on the shore or in the bed of the body of water shall not be present in such amounts as to interfere with public rights in waters of the state.
 - b. Floating or submerged debris, oil, scum, or other materials shall not be present in such amounts as to interfere with public rights in the waters of the state.
 - c. Materials producing color, odor, taste or unsightliness shall not be present in such amounts as to interfere with public rights in the waters of the state.
 - d. Substances in concentrations or combinations which are toxic or harmful to humans shall not be present in amounts found to be of public health significance, nor shall substances be present in amounts which are acutely harmful to animal, plant, or aquatic life.
- 2. Any construction work at the facility should not occur between the timeframes of September 15 and May 15th of any given year. If it is necessary to have construction in or near the waterway during these timeframes, please contact your WDNR FERC Coordinator. Consultation with the local fishery biologist may be necessary, to protect the aquatic resource.
- 3. Except for natural conditions, all waters classified for fish and aquatic life shall meet the following criteria or variance granted them, and as specified in NR102.04 Wisconsin Administrative Code:
 - a. Dissolved Oxygen the dissolved oxygen content in surface waters may not be lowered to less than 5 mg/L at any time, for non-cold water communities; and 6 mg/L for cold water communities, nor less than 7 mg/L during spawning season.
 - b. Temperature
 - i. There shall be no temperature changes that adversely affect aquatic life.
 - ii. Natural daily and seasonal temperature fluctuations shall be maintained.
 - iii. The temperature shall not exceed 89 degrees Fahrenheit for warm water fisheries, and 86 degrees Fahrenheit for cold water fisheries.

- c. pH The pH shall be within the range of 6.0 to 9.0, with no change greater than 0.5 units outside the estimated natural seasonal maximum and minimum.
- 4. The applicant shall comply with all federal, state and local permit requirements.
- 5. The applicant shall meet State of Wisconsin water quality standards applying to this project. As with all other affected operations, the applicant is required to meet any revised state water quality standards.
- 6. The applicant must operate the dam in a run-of-river mode.
- 7. The licensee shall act at all times to minimize fluctuations of the reservoir surface elevation by maintaining a discharge from the Project, so that, at any point in time, flows, as measured immediately downstream of the dam structure, approximate the sum of inflows to the project reservoir. The utility shall operate their hydroelectric dam as close as possible to 793.20 feet.
- 8. The utility shall comply with the conditions of the Department water level order dated January 19, 1983 (3-WC-82-809WL).
- 9. Any proposals for project maintenance or repair work involving the river including reservoir drawdowns to facilitate repair/maintenance work shall be filed with FERC after consultation with the Department.
- 10. The applicant shall allow the Department to inspect the project area at any time upon reasonable notification to monitor compliance with certification conditions.
- 11. Any change to the project that would have a significant or material effect on the findings, conclusions, or conditions of this certification, including project operation, must be submitted to the Department for prior review and written approval.
- 12. The permittee after securing related federal, state, and local permits shall notify the Department of its intent to begin construction at least 5 days prior to the beginning of is construction and shall provide a minimum notification of 5 days after completion of construction.
- 13. Project operations may be temporarily modified if required by operating emergencies beyond the licensee's control or for short periods with the Department's approval. If project operations are temporarily modified due to circumstances beyond the licensee's control, the licensee must make all reasonable attempts to return to authorized operation as soon as possible.
- 14. Deviations of flow from the operations shall be reported to the Department within 24 hours of the deviation.
- 15. Run-of-river and flowage elevations may be modified temporarily, if required by operating emergencies beyond control of the permittee, or are necessary to maintain suitable habitat downstream of the dam. Changes to operations shall be approved by the Department prior to implementation.
- 16. Intake velocities at the power canal intake trash racks for the facility shall not exceed 2.4 fps during the months of August, September, and October, and shall not exceed 2.9 fps at any time. The facility shall maintain intake velocities at or less than 2.0 fps whenever practicable.

- 17. Trash rack spacing at the facility shall not exceed 1-inch clear spacing, unless otherwise determined by the Department, the US Fish and Wildlife Service, and the utility.
- 18. The utility shall develop and implement a recreation plan consistent with the requirements of FERC and the Department. The plan shall be finalized and approved by the Department within one year of the issuance of the FERC license.
- 19. The utility shall work with the WDNR FERC Coordinator to review state listed species, and actions to ensure proper compliance with the state endangered species law.
- 20. Within one year of issuance of the FERC license, the utility owner shall develop the following management plans, in consultation with the Department and US Fish and Wildlife Service. These plans shall be approved by the Department prior to start of operations.
 - a. A water quality monitoring plan that describes the methodology used to conduct periodic water quality monitoring in accordance with a schedule approved by the WDNR. The WDNR water resources staff will provide technical assist on specific parameters and sampling methods, and frequency.
 - b. Flow delivery and flow monitoring plan, including the installation of a staff gage showing the reservoir operating band stipulated in the license. The plan shall be developed in cooperation with the DNR, within one year of license issuance, and prior to construction.
 - c. A shoreline erosion plan that includes an evaluation and monitoring plan.
 - d. A woody debris passage plan that includes how the utility will pass debris, and comply with NR40 restrictions on passing aquatic invasive species. WDNR will provide technical assistance to the utility to address activities, such as disposal of debris collected at trash racks, vegetation management on the property, and sluicing of debris as appropriate.
 - e. A reservoir drawdown plan to minimize the impact of any project maintenance requiring a reservoir drawdown on aquatic and wetland resources. The plan shall include procedures for consulting with WDNR and FWS in advance of drawdowns. The plan shall also address procedures for consulting with agencies after an emergency drawdown of the reservoir surface water elevations. The procedure shall identify notification and agency consultation requirements that would occur prior to returning to normal operating reservoir levels.
 - f. An aquatic invasive species monitoring and control plan that includes the requirements of NR40, incorporates local efforts by other interest groups, and identifies goals and objectives as identified by the Department. Additionally, the utility owner shall meet with the Department annually to review the plan and make management adjustments as appropriate. WDNR water resources staff will provide technical assistance to the utility with development of an aquatic invasive species plan.
 - g. A recreation plan that includes but is not limited to a small water craft portage/launch downstream of the dam, and a restricted access to ramp for boat launching. Permits may be

- required for various activities identified in the recreation plan, and shall be obtained from the regional water staff.
- h. A wildlife and land management plan is not necessary at this time, but may be requested in the future.
- 21. Due the issuance of a water level order for the Angelo Pond, reduction of water levels below the ordered water level will require obtaining a separate drawdown permit from the WDNR. This permit should be coordinated with the WDNR FERC Coordinator, and will require review by the Dam Safety Program.
- 22. Your acceptance of this permit and efforts to begin work on this project signify that you have read, understood and agreed to follow all conditions of this permit and order.
- 23. The Department may modify or revoke this permit if the project is not completed and maintained according to the terms of the permit, or if the Department determines the activity is detrimental to the public interest.
- 24. This permit does not authorize any work other than what is you specifically describe in your application and plans, and as modified by the conditions of this permit. If you wish to alter the project or permit conditions, you must first obtain written approval of the Department.
- 25. Development connected with this project shall conform to local zoning ordinances and the standards for floodplain and shoreland development contained in Chapters NR 115, NR 116, and NR 117, Wis. Adm. Code.

FINDINGS OF FACT

Western Technical College, 400 7th Street, La Crosse Wisconsin 54602, filed an application with the Wisconsin Department of Natural Resources on January 24, 2011 under NR299 and CWA Section 401, for a water quality certification associated with the licensing of the Angelo hydroelectric power facility, located at 17N 3W Section 7, Town of Angelo, Monroe County, Wisconsin.

- 1. The application including plans, project schedule, technical design, were submitted to the Department on January 24, 2011. Completeness was determined on August 22, 2012, when FERC issued the Environmental Assessment.
- 2. The Department approved the transfer of ownership of the Angelo Dam from Monroe County to Western Technical College on August 8, 2012. The purpose of the transfer is to allow Western Technical College to construct the necessary improvements to add hydropower to the dam. Western Technical College is the responsible party for the operation and maintenance of the dam and associated hydropower.
- 3. The estimated hydraulic capacity for the project is 168 cfs at full load, and 32 cfs at minimum load. This project will operate in run-of-river mode.
- 4. The WDNR has completed an investigation of the project and has evaluated the project as described in the applicant's plans.

- 5. The Department of Natural Resources issued a water level order dated January 19, 1983, (3-WC-82-809 WL). The Order is attached, and is part of the Water Quality Certification Conditions.
- 6. The Department classifies all surface waters into one of five fish and aquatic life subcategories. The La Crosse River is classified as a class 2 trout water, downstream of the Angelo dam is a class 3 trout water community. Wisconsin recognizes this resource as a cold water category 5 water.
- 7. Based on its review of the applicant's proposal and the above findings, the Department concludes that there is a discharge from this project. There is reasonable assurance that operation and maintenance of dam as proposed by the application and modified by the following conditions will not cause a violation of Wisconsin Water Quality Standards. And, the dam will be in compliance with sections 301, 302, 303, 306, and 307 of the Federal Clean Water Act, P.L 92-500, as amended, and other appropriate requirements of state law. The Department has made the determination that the proposed activity will comply with the State's water quality standards enumerated in s. 299.04, Wis. Adm. Code, subject to the conditions identified in the permit conditions.
- 8. The Department may request, at any time, that FERC re-opens the license to consider modifications to the license necessary to assure compliance with Wisconsin state water quality standards.
- 9. The proposed project will not adversely impact wetlands.
- 10. Provided the project complies with the conditions in the order, the construction, operation, and maintenance of the proposed project is in the public interest considering ecological, aesthetic, economic, and recreational values, section 31.06 Wis Stats.
- 11. The La Crosse River and Angelo Pond are navigable in fact.
- 12. As of the date of the issuance of the water quality certification, the waters below Angelo Pond have not tested positive for fish disease Viral Hemorrhagic Septicemia (VHS) under section NR20.14(9), Wis. Admin. Code.
- 13. The Department has reviewed and commented on the Environmental Assessment written by FERC for this project.
- 14. The Department has determined that an Environmental Assessment for WEPA compliance is not necessary, and all state resources issues have been adequately disclosed in the Environmental Assessment written by FERC.
- 15. The certification contained here-in shall expire on the date of the expiration of the FERC license, or upon revocation by the Department.
- 16. The proposed project is constructed in accordance with the provisions of this certification will not adversely affect water quality, will not increase water pollution in surface waters and will not cause environmental pollution as defined in s. 283.01(6m), Wis. Stats.

17. The WDNR and the applicant have completed all procedural requirements and the project as authorized will comply with all applicable requirements of Sections 1.11 and 281.15, Wis. Stats., Section 401 of CWA, and Chapters NR 102, 103, 150 and 299 of the Wisconsin Administrative Code.

CONCLUSIONS OF LAW

Department has the authority to issue Water Quality Certification under Chapter NR299 of the Wisconsin Administrative Code. Water quality certification procedures have been adopted pursuant to Section 401 of the Clean Water Act (33 USC 1341) and Sections 227.11 (2) (a), 281.12(1) and 283.001, Wis. Stats. It is the policy of the Department to review, all activities which require a federal license or permit which may result in any discharge to waters of the state and to:

- 1. Deny certification for any activity where the Department does not have reasonable assurance that any discharge will comply with effluent limits, water quality related concerns, or any other appropriate requirements of state law as outlined in NR299.04; or
- 2. Grant or grant conditionally certification for any activity where the Department has reasonable assurance that any discharge will comply with effluent limitations, water quality related concerns or any other appropriate requirements of state law as outlined in NR299.04; or
- 3. Waive certification for any activity which the Department finds will result in no discharge, any wastewater discharge associated with an activity which will be regulated by the permit authority under ch.283, Wis. Stats., or any activity that does not fall within the purview of the Department's authority.

The Department shall determine whether it has reasonable assurance that the proposed activity complied with the following water quality standards;

- 1. Effluent limitations adopted under s. 283.13, Wis. Stats., and 33 UCS 1311, for categories of discharges;
- 2. Water based related effluent limitations adopted under s. 283.13(5), Wis. Stats., and 33 USC 1312;
- 3. Water quality standards adopted under s. 281.15, Wis. Stats., and 33 USC 1313;
- 4. Standards of performance adopted under s. 283.19, Wis. Stats., and 33 USC 1316;
- 5. Toxic and pretreatment effluent adopted under s. 283.21, Wis. Stats., and 33 USC 1317;
- 6. Public interest and public rights standards, related to water quality, set forth in ss. 30.03, 30.10, 3011, 30.12, 30.123, 30.13, 30.15, 30.18, 30.19, 30.195, 30.196, 30.20, 30.202, 30.206, 30.21, 31.05, 31.06, 31.07, 31.08, 31.12, 31.13, 31.18, 31.23, 88.31, and 281.15, Wis, Stats., and made applicable by 33 USC 1341 (d);
- 7. Any other appropriate requirements of state law as provided in 33 USC 1341 (d).

If you believe you have a right to challenge this decision, you should know that Wisconsin statutes and administrative rules established time periods within which requests to review Department decisions must be filed. For judicial review of a decision pursuant to ss. 227.52 and 227.53, Stats., you have 30 days after the decision is mailed, otherwise served by the Department, to file your petition with the appropriate circuit court and serve the petition on the Department. Such a petition shall name the Department of Natural Resources as the respondent.

To request a contested case hearing pursuant to s. 227.42, you have 30 days after the decision is mailed, or otherwise serviced by the Department, to serve a petition for hearing on the Secretary of the Department of Natural Resources. The filing of a request for a contested case hearing is not a prerequisite for judicial review and does not extend the 30 day period for filing a petition for judicial review. Unless a written request for a hearing is filed with the Department within 30 days after mailing of the Notice, the Department's decision will become final without public hearing at the end of the 30-day period.

Dated on December 12, 2012,

STATE OF WISCONSIN DEPARTMENT OF NATURAL RESOURCES

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WDNR Acting FERC Coordinator