

138 FERC ¶ 62,318
UNITED STATES OF AMERICA
FEDERAL ENERGY REGULATORY COMMISSION

Saywatt Hydroelectric, LLC

Project No. 9611-013

ORDER AMENDING EXEMPTION

(Issued March 29, 2012)

1. On January 11, 2012, and supplemented on February 23, 2012, Saywatt Hydroelectric, LLC, (Saywatt or exemptee) filed an application to amend the exemption for the Mechanicsville Hydroelectric Project (FERC No. 9611).¹ The project is located on French River, near Thompson, in Windham County, Connecticut.

Background

2. The Order Granting Exemption from Licensing was issued on January 27, 1988 to Saywatt Hydro Associates for the Mechanicsville Project. On June 1, 2010, Saywatt Hydroelectric, LLC acquired the Mechanicsville Hydroelectric Project from Saywatt Hydro Associates.

3. The exemption describes the project to consist of: (1) a dam with a 20-foot-high, 200-foot-long granite block spillway surmounted with the remains of weir boards and a 210-foot-long earthen dike; (2) a 44-acre reservoir with a 256-acre-foot storage capacity; (3) a 5-foot-diameter, 20-foot-long penstock; (4) a powerhouse containing a 325-kW generating unit and; (5) a 900-foot-long, 23-kV transmission line connecting to Northeast Utility Company.

4. The authorized exemption is subject to certain conditions filed on September 2, 1987, by the U.S. Fish and Wildlife Service (FWS). In particular, the FWS prescribed that the 2-foot high flashboards be removed from July 1 through October 31 to protect the 9.4-acre wetland located within the project reservoir and their water quality functions. In addition to the project being operated in a run-of-river mode, the FWS required that the exemptee not operate the project if river flows were less than 86 cfs.

¹ 42 FERC ¶ 62,044 (1988).

5. In the filing, the exemptee explains that during the construction phase, Saywatt Hydro Associates lacked the resources to acquire the authorized 325 kW unit, and decided to install one unit, rated 225 kW.

Proposed Amendment

6. The Exemptee is proposing to add an additional turbine-generator unit rated at 96 kW to the already existing turbine-generator unit rated at 225 kW, in order to closely match the authorized capacity of 325 kW. In addition, the exemptee proposes to amend the flashboard operation by having flashboards in year round, modifying the height during specific times (i.e. using 2-foot high flashboards from October 1 through June 30 and 1-foot high flashboards from July 1 through September 30). Lastly, the exemptee proposes to lower the minimum start flow from 86 cfs to 60 cfs, which is a result of the lower hydraulic capacity of the second proposed turbine (38 cfs) and the existing bypass flow requirement (22 cfs).

Agency Consultation

7. On and around November 28, 2011, the exemptee conducted pre-amendment meetings via the telephone and circulated a draft amendment application to the FWS, the Connecticut Department of Energy and Environmental Protection (CT DEEP) Division of Water Quality, and Inland Fisheries, the Low Impact Hydro Institute (LIHI), and the Connecticut State Historic Preservation Office (SHPO). The FWS provided comments in a letter dated October 27, 2011 approving the proposed changes to the operation of the flashboards. The FWS also revised condition number 10 of the terms and conditions that they issued for the project in 1987, to reflect this change. In a second letter dated December 29, 2011, the FWS states that they support the addition of the new turbine; however, this change may result in less flow spilling over the dam which could affect water quality downstream of the dam. Therefore, the FWS requests that the installation of the second turbine be contingent on the exemptee developing and conducting a water quality monitoring survey to verify that the new unit does not lower the dissolved oxygen levels. The FWS also did not object to the modified minimum start flow assuming that the recommended water quality survey does not indicate that additional spillage may be necessary. The FWS modified condition number 4 of the 1987 terms and conditions to reflect the proposed change.

8. On January 11, 2012, the CT DEEP provided comments stating they support the amendment provided the eel passage plan is fully implemented and maintained for the duration of the exemption; water quality is monitored as recommended by the FWS; and if diminished water quality is observed that these changes would be mitigated.

9. The SHPO provided comments on January 5, 2012 stating the amendment will have no adverse effect on the integrity of the historic powerhouse and associated dam. No other agencies provided comment on the draft application.

10. On March 8, 2012, the Commission issued a public notice of the proposed amendment of exemption. The closing date for the public notice was March 22, 2012. On March 15, 2012, the CT DEEP intervened in the proceeding as well as filing comments that reiterated what they said in their January 11, 2012 comments to the exemptee. On March 20, 2012, the U.S. Department of Interior (Office of the Secretary) filed comments in response to the public notice, stating that the FWS provided comments on the application and that the Office of the Secretary has no further comments.

Review

A. Environmental Review

11. All of the construction for the proposed amendment would occur within the existing powerhouse. No ground disturbing activities are proposed and no in water work is anticipated. However, as part of the amendment, the exemptee is proposing to change the startup flow to 60 cfs from 86 cfs to match the lower hydraulic capacity of the new unit. As a result of the reduced startup flows and the additional unit, there may be less water spilling over the dam. The reduced spills could reduce the downstream dissolved oxygen levels.

12. Because of the possibility of reduced oxygen levels, the FWS and CT DEEP recommended the exemptee prepare and implement a water quality monitoring survey. The results of the study would allow the agencies to make recommendations to mitigate if it is determined that the new approach velocities are reducing downstream dissolved oxygen. The exemptee has indicated that it will comply with the agencies' recommendations. The FWS's term and condition number 4 was amended to reflect this change.

13. The exemptee has also agreed to support eel passage at the project. To accommodate eel passage the CT DEEP requested that one foot of flashboards remain during low flow season so that an upstream passage through the dam could be constructed through the flashboards. The changes to the FWS's condition no. 10 with regard to how the flashboards will be operated would ensure adequate passage of eels.

14. The powerhouse was constructed in 1922 and is considered by the SHPO as potentially eligible for listing in the National Register of Historic Places for its association with early hydroelectrical generation and rural electrification. Because the proposed work would only require minor alterations to the existing facility, the SHPO

determined that the proposed action would have no adverse effect on the integrity of the historic powerhouse and associated dam.

B. Design Change and Annual Charges

15. The exemption will now consist of two units with roughly the same capacity as was originally authorized. The 1988 exemption authorized one unit rated at 325 kW; however, due to a lack of resources, the original exemptee placed one unit rated 225 kW. With this amendment, the powerhouse will consist of two units, the existing unit rated 225 kW, and a new second unit rate at 96 kW, for a total authorized installed capacity of 321 kW.

16. As authorized in the 1988 exemption, the exemptee operated the project with 2-foot flashboards from November 1 through June 30 and no flashboards from July 1 through October 31. The new condition for flashboard operation would require the exemptee to use flashboards all year round, with 2-foot flashboards from October 1 through June 30 and 1-foot flashboards from July 1 through September 30.

17. The Commission collects annual charges from licensees for administration of the Federal Power Act (FPA) and occupancy of federal lands; however, under the regulations currently in effect, projects with an authorized installed capacity of less than or equal to 1,500 kW, and no federal lands, like this project, will not be assessed an annual charge.

C. Revised Exhibits

18. In the filing, the exemptee included revised Exhibits A, B, and G.² The proposed Exhibit A conforms to Commission's rules and regulations, and is approved by ordering paragraph (D).

19. The proposed amendment does not require a revision to the project boundary; however, the Exhibit B drawing on record does not contain a delineated project boundary. The Exhibit B filed on February 23, 2012 does not conform to the Commission's rules and regulations per 18 C.F.R. §§ 4.39 and 4.41(h). More

² The naming conventions the Commission uses for project exhibits have changed since the exemption was granted for this project. Exhibit G designation for general design drawings of principal project features; however, this type of drawing is now referred to as Exhibit F in 18 C.F.R. § 4.41(g). Exhibit B designation for exhibits depicting maps of the project boundary is now referred to as Exhibit G in 18 C.F.R. § 4.41(h). To be consistent with the original exemption, we will continue to use the exhibits labeling used in the exemption.

specifically: (1) the drawing fails to show a project boundary that encompasses all lands necessary for project operation; (2) the drawing should be entitled "Project Boundary" and the title block and drawing size should be reflected as required in § 4.39; (3) the drawing was not accompanied by an electronic file and does not comply with the formatting requirements of the Commission's regulations (*i.e.*, electronic tiff files); (4) the drawing does not show three known reference points (*i.e.*, latitude and longitude coordinates, or state plane coordinates), arranged in a triangular format for GIS geo referencing; and (5) the drawing must be stamped by a registered land surveyor. Therefore, I am not approving the drawings at this time. Ordering paragraph (E) requires the filing of revised Exhibit B drawings.

20. The revised Exhibit G is in accordance with the Commission's rules and regulations, with the exception of drawing size and the title block format, and therefore is approved in ordering paragraph (F). Ordering paragraph (G) requires the filing of the approved drawings in aperture card and electronic file format.

21. In addition, ordering paragraph (J) requires the exemptee to file, within 90 days of completion of construction, revised Exhibits A, B, and G, as applicable, to show and describe the project facilities as-built. All revised Exhibit B and G drawings must be prepared in accordance with 18 C.F.R. §§ 4.39 and 4.41.

D. Construction

22. To ensure a safe and adequate project, as shown in ordering paragraph (H), the exemptee must perform all work in consultation with the Commission's Division of Dam Safety and Inspections New York Regional Office. The exemptee shall not start any construction activities before receiving a prior authorization from the Commission's New York Regional Office. Accordingly, ordering paragraph (I) of this order requires the licensee to commence construction of the project works authorized in this order within 1 year of the issuance date of this order and shall complete construction within 2 years of the issuance date of this order.

Conclusion

23. Based upon the review of the information provided by the exemptee, agency comments, and staff's independent analysis, Commission staff concludes that approving the amendment of the exemption is not a major federal action significantly affecting the quality of the human environment. This order approves the amendment of the exemption to authorize installation of an additional turbine-generator unit rated at 96 kW to closely match the authorized installed capacity of the exemption, modification of the flashboard operations, and modification of flow required for project start-up. Prior to starting construction, the exemptee must consult with the Commission's Division of Dam Safety and Inspection New York Regional Office.

The Director orders:

(A) The exemption for the Mechanicsville Hydroelectric Project, FERC No. 9611, is amended as provided in this order.

(B) The Project Description under the approved exemption is revised to read:

(1) a dam consisting of a 200-foot-long by 20-foot-high, granite block spillway surmounted with 2-foot-high flashboards; (2) a 210-foot-long earthen dike; (3) a 48-acre reservoir at 303.5-foot mean sea level; (4) a powerhouse containing two turbine-generator units with a total installed capacity of 321 kW and a maximum hydraulic capacity of 333 cfs: (a) one unit rated at 225-kW with a maximum hydraulic capacity of 233 cfs; and (b) one unit rated at 96-kW with a maximum hydraulic capacity of 100 cfs; (5) a 900-foot-long, 2.3-kV transmission line connecting to Northeast Utility Company; and (6) appurtenant facilities.

(C) The exemption for the Mechanicsville Project is subject to the terms and conditions of the October 27, 2011 and the December 29, 2011 letters issued by the U.S. Fish and Wildlife Service, which amends two of the exemption conditions (4 and 10) as follows:

4. The Exemptee shall conduct a water quality monitoring survey. The survey protocol shall be developed in consultation with, and require approval by, the U.S. Fish and Wildlife Service. Data shall be collected over a minimum of three (3) years, and shall be initiated the first low-flow season after the new Leffel turbine becomes operational. If results indicate that the project is causing depletion of dissolved oxygen, mitigation measures may be required (e.g., releasing additional flow over the dam for reaeration). Upon mutual agreement between the Exemptee, the U.S. Fish and Wildlife Service, and the Connecticut Department of Energy and Environmental Protection, the number of years of monitoring may be reduced.

10. The Exemptee shall remove one foot of flashboards during the period July 1 through September 30 annually (to elevation 302.5 feet Mean Sea Level).

(D) Exhibit A, 1.0 Project Description and Sections (1) through (8) of the revised Exhibit A filed on January 11, 2012, is approved and made part of the exemption. The old Exhibit A filed March 30, 1987, is superseded.

(E) Within 45 days of the date of issuance of this order, the exemptee shall file for Commission approval, revised Exhibit B drawings described in paragraph 19 of this order to show those project facilities as built. A courtesy copy shall be filed with the Commission's Division of Dam Safety and Inspections (D2SI)-New York Regional Engineer, the Director, D2SI, and the Director, Division Hydropower Administration and Compliance (DHAC).

Each Exhibit B drawing that includes the project boundary must contain a minimum of three known reference points (i.e., latitude and longitude coordinates, or state plane coordinates). The points must be arranged in a triangular format for GIS georeferencing the project boundary drawing to the polygon data, and must be based on a standard map coordinate system. The spatial reference for the drawing (i.e., map projection, map datum, and units of measurement) must be identified on the drawing and each reference point must be labeled.

The exemptee shall file two separate sets of the project boundary data in a georeferenced electronic file format (such as ArcView shape files, GeoMedia files, MapInfo files, or a similar GIS format) with the Secretary of the Commission, ATTN: OEP/DHAC. The filing shall include both polygon data and all reference points shown on the individual project boundary drawings. An electronic boundary polygon data file(s) is required for each project development. Depending on the electronic file format, the polygon and point data can be included in a single file with multiple layers. The georeferenced electronic boundary data file must be positionally accurate to ± 40 feet in order to comply with National Map Accuracy Standards for maps at a 1:24,000 scale. The file name(s) shall include: FERC Project Number, data description, date of this order, and file extension in the following format [P-9611, boundary polygon/or point data, MM-DD-YYYY.SHP]. The data must be accompanied by a separate text file describing the spatial reference for the georeferenced data: map projection used (i.e., UTM, State Plane, Decimal Degrees, etc.), the map datum (i.e., North American 27, North American 83, etc.), and the units of measurement (i.e., feet, meters, miles, etc.). The text file name shall include: FERC Project Number, data description, date of this order, and file extension in the following format [P-9611, project boundary metadata, MM-DD-YYYY.TXT].

(F) The following Exhibit G drawings filed with the amendment application is approved, as modified by the requirements to resize the drawing and reformat the title block, conforms to the Commission's rules and regulations and is approved and made part of the exemption.

| Exhibit | FERC Drawing No. | Title |
|---------|------------------|---------------------|
| G-1 | 9611-2 | Powerhouse Top View |
| G-2 | 9611-3 | Powerhouse Section |

(G) Within 45 days of the date of issuance of the order, the exemptee shall file the approved exhibit drawing in aperture card and electronic file formats. Before filing with the Commission, the drawing title block must be reformatted in accordance with 18 C.F.R. § 4.39.

a) Three sets of the approved exhibit drawings shall be reproduced on silver or gelatin 35mm microfilm. All microfilm shall be mounted on type D (3-1/4" x 7-3/8") aperture cards. Prior to microfilming, the FERC Project-Drawing Number (i.e., P-9611-2) shall be shown in the margin below the title block of the approved drawing. After mounting, the FERC Drawing Number shall be typed on the upper right corner of each aperture card. Additionally, the Project Number, FERC Exhibit (G-1), Drawing Title, and date of this order shall be typed on the upper left corner of each aperture card. (See Figure 1).

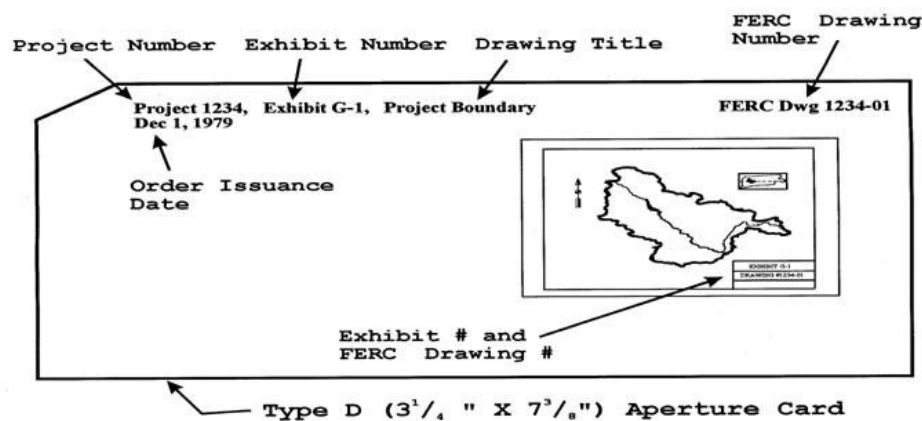


Figure 1. Sample Aperture Card Format

Two of the sets of aperture cards shall be filed with the Secretary of the Commission, ATTN: OEP/DHAC. The third set shall be filed with the Commission's Division of Dam Safety and Inspections New York Regional Office.

b) The exemptee shall file two separate sets of exhibit drawings in electronic raster format with the Secretary of the Commission, ATTN: OEP/DHAC. A third set shall be filed with the Commission's Division of Dam Safety and Inspections New York Regional Office. **Exhibit G drawings must be identified as Critical Energy Infrastructure Information (CEII) material under 18 C.F.R. § 388.113(c) (2010).** Each drawing must be a separate electronic file, and the file name shall include: FERC Project-Drawing Number, FERC Exhibit, Drawing Title, date of this order, and file extension in the following format [P-9611-1, G-1, Powerhouse Top View, MM-DD-YYYY.TIF]. Electronic drawings shall meet the following format specification:

IMAGERY - black & white raster file
FILE TYPE – Tagged Image File Format, (TIFF) CCITT Group 4
RESOLUTION – 300 dpi desired, (200 dpi min)
DRAWING SIZE FORMAT – 24” x 36” (min), 28” x 40” (max)
FILE SIZE – less than 1 MB desired

(H) The exemptee must perform all work in consultation with the Commission’s Division of Dam Safety and Inspection New York Regional Office. The exemptee shall not start any construction activities before receiving a prior authorization from the Commission’s New York Regional Office.

(I) The exemptee shall commence construction of the project works authorized in this order within 1 year of the issuance date of this order and shall complete construction within 2 years of the issuance date of this order.

(J) As-built Drawings. Within 90 days of completion of construction of the facilities authorized by this order, the exemptee shall file for Commission approval, revised Exhibits A, B, and G, as applicable, to describe and show those project facilities as built.

(K) This order constitutes final agency action. Any party may file a request for rehearing of this order within 30 days from the date of its issuance, as provided in section 313(a) of the FPA, 16 U.S.C. § 8251 (2006), and the Commission’s regulations at 18 C.F.R. § 385.713 (2011). The filing of a request for rehearing does not operate as a stay of the effective date of this order, or of any other date specified in this order. The exemptee’s failure to file a request for rehearing shall constitute acceptance of this order.

M. Joseph Fayyad
Engineering Team Lead
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Document Content(s)

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