



COMMONWEALTH of VIRGINIA

DEPARTMENT OF ENVIRONMENTAL QUALITY

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STATE WATER CONTROL BOARD ENFORCEMENT ACTION - ORDER BY CONSENT ISSUED TO Hydro-FS, LLC FOR Falling Spring Hydroelectric Facility

SECTION A: Purpose

This is a Consent Order issued under the authority of Va. Code § 62.1-44.15, between the State Water Control Board and Hydro-FS, LLC, regarding the Falling Springs Hydroelectric Facility, for the purpose of resolving certain violations of State Water Control Law and the applicable regulations.

SECTION B: Definitions

Unless the context clearly indicates otherwise, the following words and terms have the meaning assigned to them below:

1. "25th Percentile Flow" means the instream flow which 25% of all instream flow measurements do not exceed. Streams with surface water withdrawals \geq 25th percentile flow are considered to have an elevated risk to various beneficial uses resulting from alterations to instream flows.
2. "Board" means the State Water Control Board, a permanent citizens' board of the Commonwealth of Virginia, as described in Va. Code §§ 10.1-1184 and 62.1-44.7.
3. "Department" or "DEQ" means the Department of Environmental Quality, an agency of the Commonwealth of Virginia, as described in Va. Code § 10.1-1183.
4. "Director" means the Director of the Department of Environmental Quality, as described in Va. Code § 10.1-1185.

5. "Facility" means the hydroelectric facility and surrounding land located at 6225 Falls Road in Falling Spring, Virginia 24426, owned by Hydro-FS, LLC.
6. "Hydro-FS" means Hydro-FS, LLC, a limited liability company authorized to do business in Virginia and its members, affiliates, partners, and subsidiaries. Hydro-FS is a "person" within the meaning of Va. Code § 62.1-44.3.
7. "Notice of Violation" or "NOV" means a type of Notice of Alleged Violation under Va. Code § 62.1-44.15.
8. "Order" means this document, also known as a "Consent Order" or "Order by Consent," a type of Special Order under the State Water Control Law.
9. "Permit" or "Virginia Water Protection Permit" means an individual or general permit issued under Va. Code § 62.1-44.15:20 that authorizes activities otherwise unlawful under Va. Code § 62.1-44.5.
10. "Regulations" means the Virginia Water Protection Permit Program Regulations, 9 VAC 25-210 *et seq.*
11. "State Water Control Law" means Chapter 3.1 (§ 62.1-44.2 *et seq.*) of Title 62.1 of the Va. Code.
12. "State waters" means all water, on the surface and under the ground, wholly or partially within or bordering the Commonwealth or within its jurisdiction, including wetlands. Va. Code § 62.1-44.3 and 9 VAC 25-210-10.
13. "Surface water" means all state waters that are not ground waters as defined in Va. Code § 62.1-255.
14. "USGS" means the United States Geological Survey, a scientific agency of the United States government.
15. "Va. Code" means the Code of Virginia (1950), as amended.
16. "VAC" means the Virginia Administrative Code.

SECTION C: Findings of Fact and Conclusions of Law

1. Hydro-FS, LLC owns and operates a hydroelectric power generating facility located in Falling Spring, Virginia. The surface water withdrawal and power generation began on or about 1910. Surface water flows into the withdrawal intake structure via a side stream of Falling Spring Creek, and the intake water is then fed by gravity through twin 24-inch pipes down to the Facility power generation house approximately 1.1 miles downstream and 390 feet in elevation below the withdrawal intake. After the intake water passes through the turbines, it is release back into Falling Spring Creek at the power generation house without any consumptive use or material losses.

2. Conditions monitored at USGS stream gauge No. 02012000 for Falling Spring Creek near Falling Spring, Virginia from April 1, 1948 to September 30, 1952 indicate that the measured 25th percentile stream flow is 6.2 cubic feet per second (cfs) (3.34 million gallons per day). Additionally, a VA Hydro modeled simulation for the period of January 1, 1990 to January 1, 2004 indicated that the modeled 25th percentile streamflow is 6.62 cfs.
3. On October 12, 2012, DEQ staff inspected the Facility. The inspection was conducted based on two separate inquiries from residents indicating that Falling Spring Creek had dried-up due to operations being conducted by the Facility. Staff made the following observations:
 - a. Sometime between 2007 and 2012, a previously existing triple culvert structure was removed from the side stream approximately 10 feet above the impoundment structure, resulting in an increase of stream flow to the impoundment structure; and
 - b. A new [Clean Water Act] § 401 certification was not issued to increase the surface water withdrawal from Falling Spring Creek; and
 - c. Surface water withdrawals were significantly affecting water flows in Falling Spring Creek between the intake and powerhouse outfall such that portions of the stream had no measurable flow as a result of the operations.
4. On April 17, 2013, DEQ staff conducted a follow-up inspection of the Facility. The inspection was conducted based on inquiries from residents indicating that Falling Spring Creek had dried-up due to operations being conducted by the Facility, DEQ staff made the following observations:
 - a. Approximately 4 to 6 inches of loose rock and block had been laid on and adjacent to the surface water impoundment structure spillway weir, increasing the volume of water available for withdrawal; and
 - b. Surface water withdrawal was approximately 12.2 cfs, exceeding the 25th percentile flow.

Hydro-FS asserts that the loose rock and block were placed in the weir to help minimize the potential for entrainment of air bubbles into the intake pipes that could cause problems with turbine operation. The loose rock and block was not observed in later inspections.

5. April 25, 2016, DEQ staff conducted a follow-up inspection of the Facility. DEQ staff observed that surface water withdrawals from Falling Spring Creek exceeded the 25th percentile flow. The withdrawal resulted in the significant alteration of the physical, chemical, and biological integrity of state waters as demonstrated by dry stream segments and the mortality of aquatic life downstream of the impoundment.

6. On August 26, 2016, DEQ staff met with Facility representatives and encouraged Hydro-FS to apply for a Permit for the operation of the Facility.
7. On November 8, 2016, DEQ staff provided a Letter of Agreement (LOA) in order to allow the Facility to conditionally operate while applying for and receiving a Permit. The LOA was not signed by the Facility representatives.
8. On April 25, 2017, DEQ received a citizen complaint regarding impacts at Falling Spring Creek associated with the operation of the Facility. Photographs included with the complaint indicated that there was no noticeable surface water flow maintained in the bypass stream channel. As a result of the complaint, DEQ staff conducted an unannounced inspection of the Facility on May 3, 2017. Staff made the following observations:
 - a. The channel immediately below the impoundment structure spillway weir was photographed at a negligible flow;
 - b. The surface water withdrawal from Falling Spring Creek was calculated to be 9.08 cfs (4.89 million gallons per day), exceeded the 25th percentile flow;
9. On July 12, 2017, DEQ received a citizen complaint regarding impacts to Falling Spring Creek associated with the operation of the Facility. Photographs included with the complaint documented that portions of the creek were dry and that there was mortality of aquatic life. DEQ staff also conducted an inspection and made the following observations:
 - a. Surface water withdrawals from Falling Spring Creek exceeded the 25th percentile flow and had resulted in a dewatered section of Falling Springs Creek approximately 100m in length and mortality of fish and benthic macroinvertebrates; and
10. Exceedance of numeric criteria for minimum dissolved oxygen in Mountainous Zone Waters (4.0 mg/l) as designated in 9VAC25-260-50), with measurements immediately upstream and downstream of the withdrawal being 8.84 mg/L and 8.26mg/L, respectively, while disconnected pools caused by the withdrawal measured 2.44mg/L.
11. Article XI, Section 1 of the Constitution of Virginia states in part that “it shall be the Commonwealth's policy to protect its atmosphere, lands, and waters from pollution, impairment, or destruction, for the benefit, enjoyment, and general welfare of the people of the Commonwealth”.
12. Va. Code § 62.1-11(F) states that “[t]he quality of state waters is affected by the quantity of water and it is the intent of the Commonwealth, to the extent practicable, to maintain flow conditions to protect instream beneficial uses and public water supplies for human consumption”.
13. Va. Code § 62.1-44.5 and § 62.1-44.15:20(A) states that except in compliance with a Permit, it shall be unlawful to alter the physical, chemical, or biological properties of state waters and make them detrimental to aquatic life.

14. 9VAC25-210-50(A) states that except in compliance with a Permit, unless the activity is otherwise exempted or excluded, no person shall withdraw surface water or otherwise alter the physical, chemical, or biological properties of state waters and make them detrimental to the public health, to animal or aquatic life.
15. Va. Code § 62.1-44.15:22(B) states that, “[n]otwithstanding any other provision, no Virginia Water Protection Permit shall be required for any water withdrawal in existence on July 1, 1989; however, a permit shall be required if a new [Clean Water Act] § 401 certification is required to increase a withdrawal.
16. 9 VAC25-210-310(A)(1) states that a Virginia Water Protection Permit shall not be required for “[a]ny surface water withdrawal in existence on July 1, 1989; however, a permit shall be required if a new § 401 certification is required to increase a withdrawal. To qualify for this exclusion, the surface water withdrawal shall be deemed to be in existence on July 1, 1989, if there was an actual withdrawal on or before that date and the withdrawal has not been abandoned.”
17. On July 6, 2017, DEQ issued NOV No. 17-06-OWS-01 for the alleged violations of Va. Code § 62.1-44.15:20(A) and 9 VAC 25-210-50(A).
18. On or about July 15, 2017, in response to the July 12, 2017 inspection findings of the lack of measurable flow and the impacts to aquatic life in Falling Springs Creek, and pursuant to DEQ’s request, Hydro-FS suspended the Surface water withdrawal from Falling Spring Creek.
19. On July 18, DEQ issued NOV No. 18-07-OSW-02 for the alleged violation of Va. Code § 62.1-44.15:20(A) and 9VAC25-210-50(A).
20. Based on the results of the information in the paragraphs above, the Board concludes that Hydro-FS has violated Va. Code § 62. 1-44.15:20(A) and 9VAC25-210-50(A).
21. To resolve the violations cited above and for Hydro-FS to return to compliance, DEQ staff and representatives of Hydro-FS have agreed to the Schedule of Compliance, which is incorporated as Appendix A of this Order.

SECTION D: Agreement and Order

Accordingly, by virtue of the authority granted it in Va. Code § 62.1-44.15, the Board orders Hydro-FS, and Hydro-FS agrees to perform, the actions described in Appendix A of this Order.

Notwithstanding any other provision of this Order, abandonment by Hydro-FS of the surface water withdrawal from Falling Spring Creek in accordance with 9VAC25-210-310(A)(1)(a) shall not be construed or operate to prevent Hydro-FS or any other operator of the

hydroelectric power generating facility from applying for a surface water withdrawal Permit to initiate a new surface water withdrawal.

If the Department has to refer enforcement of this Order to the Department of Law, Hydro-FS shall be liable for any reasonable costs and attorneys' fees incurred in enforcing this Order.

SECTION E: Administrative Provisions

1. The Board may modify, rewrite, or amend this Order with the consent of Hydro-FS for good cause shown by Hydro-FS, or on its own motion pursuant to the Administrative Process Act, Va. Code § 2.2-4000 *et seq.*, after notice and opportunity to be heard.
2. This Order addresses and resolves only those violations specifically identified in Section C of this Order and in NOV No. 17-06-OWS-01 dated July 6, 2017 and for NOV No. 18-07-OSW-02 dated July 18, 2017. This Order shall not preclude the Board or the Director from taking any action authorized by law, including but not limited to: (1) taking any action authorized by law regarding any additional, subsequent, or subsequently discovered violations; (2) seeking subsequent remediation of the facility; or (3) taking subsequent action to enforce the Order.
3. For purposes of this Order and subsequent actions with respect to this Order only, Hydro-FS admits to the jurisdictional allegations, and agrees not to contest, but does not admit, the findings of fact and conclusions of law in this Order.
4. Hydro-FS consents to venue in the Circuit Court of the City of Richmond for any civil action taken to enforce the terms of this Order.
5. Hydro-FS declares that it has received fair and due process under the Administrative Process Act and the State Water Control Law and it waives the right to any hearing or other administrative proceeding authorized or required by law or regulation, and to any judicial review of any issue of fact or law contained herein. Nothing herein shall be construed as a waiver of the right to any administrative proceeding for, or to judicial review of, any action taken by the Board to modify, rewrite, amend, or enforce this Order.
6. Failure by Hydro-FS to comply with any of the terms of this Order shall constitute a violation of an order of the Board. Nothing herein shall waive the initiation of appropriate enforcement actions or the issuance of additional orders as appropriate by the Board or the Director as a result of such violations. Nothing herein shall affect appropriate enforcement actions by any other federal, state, or local regulatory authority.
7. If any provision of this Order is found to be unenforceable for any reason, the remainder of the Order shall remain in full force and effect.
8. Hydro-FS shall be responsible for failure to comply with any of the terms and conditions of this Order unless compliance is made impossible by earthquake, flood, other acts of God,

war, strike, or such other unforeseeable circumstances beyond its control and not due to a lack of good faith or diligence on its part. Hydro-FS shall demonstrate that such circumstances were beyond its control and not due to a lack of good faith or diligence on its part. Hydro-FS shall notify the DEQ Regional Director verbally within 24 hours and in writing within three business days when circumstances are anticipated to occur, are occurring, or have occurred that may delay compliance or cause noncompliance with any requirement of the Order. Such notice shall set forth:

- a. the reasons for the delay or noncompliance;
- b. the projected duration of any such delay or noncompliance;
- c. the measures taken and to be taken to prevent or minimize such delay or noncompliance;
and
- d. the timetable by which such measures will be implemented and the date full compliance will be achieved.

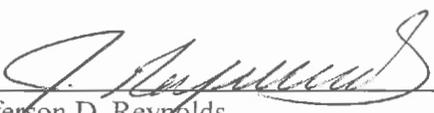
Failure to so notify the Regional Director verbally within 24 hours and in writing within three business days, of learning of any condition above, which the parties intend to assert will result in the impossibility of compliance, shall constitute a waiver of any claim to inability to comply with a requirement of this Order.

9. This Order is binding on the parties hereto and any successors in interest, designees and assigns, jointly and severally.
10. This Order shall become effective upon execution by both the Director or his designee and Hydro-FS. Nevertheless, Hydro-FS agrees to be bound by any compliance date which precedes the effective date of this Order.
11. This Order shall continue in effect until:
 - a. The Director or his designee terminates the Order after Hydro-FS has completed all of the requirements of the Order;
 - b. Hydro-FS petitions the Director or his designee to terminate the Order after it has completed all of the requirements of the Order and the Director or his designee approves the termination of the Order; or
 - c. the Director or Board terminates the Order in his or its sole discretion upon 30 days' written notice to Hydro-FS.

Termination of this Order, or any obligation imposed in this Order, shall not operate to relieve Hydro-FS from its obligation to comply with any statute, regulation, permit condition, other order, certificate, certification, standard, or requirement otherwise applicable.

12. Any plans, reports, schedules or specifications attached hereto or submitted by Hydro-FS and approved by the Department pursuant to this Order are incorporated into this Order. Any non-compliance with such approved documents shall be considered a violation of this Order.
13. The undersigned representative of Hydro-FS certifies that he or she is a responsible official [or officer] authorized to enter into the terms and conditions of this Order and to execute and legally bind Hydro-FS to this document. Any documents to be submitted pursuant to this Order shall also be submitted by a responsible official of Hydro-FS.
14. This Order constitutes the entire agreement and understanding of the parties concerning settlement of the violations identified in Section C of this Order, and there are no representations, warranties, covenants, terms or conditions agreed upon between the parties other than those expressed in this Order.
15. By its signature below, Hydro-FS voluntarily agrees to the issuance of this Order.

And it is so ORDERED this 2nd day of November, 2017.



Jefferson D. Reynolds
Director of Enforcement
Department of Environmental Quality

Hydro-FS, LLC voluntarily agrees to the issuance of this Order.

Hydro-FS, LLC

By: [Signature]

Name: ARMAND THIEBLOT

Title: VP HYDRO-FS, LLC

Date: 10/3/17

Commonwealth of Virginia
City/County of Newport News

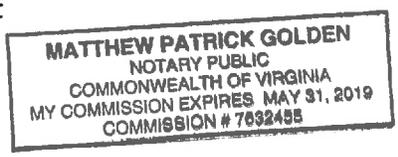
The foregoing document was signed and acknowledged before me this 3 day of October, 2017, by Armand Thieblot who is Vice President of Hydro-FS, LLC, on behalf of the company.

[Signature]
Notary Public

7637455
Registration No.

My commission expires: May 31, 2019

Notary seal:



APPENDIX A
SCHEDULE OF COMPLIANCE

1. Hydro-FS shall maintain its suspension of the surface water withdrawal that began on or about July 15, 2017.
2. Within forty-five (45) days of the effective date of this Order, Hydro-FS shall disable the Surface water withdrawal system and demonstrate the abandonment of the surface water withdrawal from Falling Spring Creek, in accordance with 9VAC25-210-310(A)(1)(a), by lowering and welding in place the head-gate plate on the intake screen to prevent surface water from entering the intake pipes.
3. Within fifteen (15) days of the completion of the work in Appendix A, Paragraph 2, Hydro-FS shall submit to DEQ:
 - a. A written report to the Department describing the work done and providing photographic evidence that such work has been completed; and
 - b. A certified written statement that the surface water withdrawal from Falling Spring Creek has been abandoned in accordance with 9VAC25-210-310(A)(1)(a).
4. Hydro-FS shall allow the board or any duly authorized agent of the board, at reasonable times and under reasonable circumstances, to make investigations and inspections, to ensure compliance with any standards, policies, rules, regulations, rulings and special orders which it may adopt. For the purpose of this section, the time for inspection shall be deemed reasonable during regular business hours. Nothing contained herein shall make an inspection time unreasonable during an emergency.
5. All submittals shall contain the following signed certification statement:

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."

6. Unless otherwise specified in this Order, Hydro-FS shall submit all requirements of Appendix A of this Order to:

Drew Hammond, P.E.
Office of Water Supply
Department of Environmental Quality
P.O. Box 1105
Richmond, VA 23218
Phone: 804-698-4101
Andrew.Hammond@deq.virginia.gov