



## BENEFICIAL USE DETERMINATION AUTHORIZATION

Aquarion Water Company  
Reuse of Drinking Water Treatment Residuals  
Authorization No.: BUD-015

### I. AUTHORIZATION INFORMATION

- A. Licensee Name: Aquarion Water Company
- B. Mailing Address: 714 Black Rock Tpke., Easton, Connecticut 06612
- C. Application No.: 202302259
- D. Received: March 8, 2023
- E. Expiration date: Ten (10) years from issuance

### II. BENEFICIAL USE DETERMINATION

- A. Pursuant to Connecticut General Statutes (CGS) § 22a-209f, the Commissioner of Energy and Environmental Protection (“Commissioner”) hereby issues this Beneficial Use Determination Authorization (“BUD Authorization”) to Aquarion Water Company (“Authorization Holder” or “Licensee”).
- B. This BUD Authorization is effective on the date it is signed by the Commissioner (the date of issuance) and expires ten (10) years from the date of issuance.
- C. This BUD Authorization is consistent with the goals of Connecticut’s state-wide solid waste management plan entitled *2016 Comprehensive Materials Management Strategy*, does not pose a significant risk to human health or the environment and is not inconsistent with the federal Water Pollution Control Act, the federal Rivers and Harbors Act, the federal Clean Air Act, or the federal Resource Conservation and Recovery Act.
- D. All activities authorized through this BUD Authorization shall be conducted in accordance with the BUD application received from the Licensee on March 8, 2023 and revisions received electronically September 5, 2023 and March 13, 2024, and as adopted or amended through the terms and conditions of this BUD Authorization. Where the conditions contained herein conflict with the BUD application, the more stringent conditions shall apply.

### **III. AUTHORIZATION**

- A. The Licensee is authorized to distribute and/or process aluminum based drinking water treatment residuals, which for the purpose of this BUD Authorization is defined as the waste product generated from the removal of suspended solids by chemical coagulation during the treatment of raw water at a treatment plant. Drinking water treatment residuals include aluminum-based residuals (alum residuals) and iron-based residuals (ferric residuals) hereinafter referred to as “Residuals” from the following Aquarion Water Company Treatment Plants: Easton Water Treatment Plant (“WTP”); Trap Falls WTP; Putnam WTP; Mianus WTP; Hemlocks WTP; Stamford WTP; and Stonington Lagoons (Deans Mill) WTP (collectively “Sites”).
- B. The Licensee is authorized to distribute and/or process Residuals as a soil amendment to be blended with compost, loam, and other soils to produce a common fill and/or topsoil product (“Finished Product”). Residuals distributed and/or processed for beneficial use shall not exceed twelve thousand (12,000) tons per year.
- C. The Licensee shall provide written notice to recipients of Residuals that the Finished Product is not to be placed: (i) in waters of the state; (2) below the water table; or (iii) in an area that is subject to erosion.

### **IV. OPERATING CONDITIONS**

- A. The beneficial use of Residuals and the use of the Finished Product shall be conducted in compliance with any applicable state, local, and federal laws, and regulations.
- B. The Residuals and Finished Product shall not be used except as authorized by this BUD Authorization, unless otherwise approved in writing by the Commissioner.
- C. The Licensee shall notify the Commissioner in writing of any proposed changes in its process that may alter the physical or chemical characteristics of the Residuals. A change in the type of Residuals, the processes generating the Residuals, and the use of the Residuals other than as specified in Condition No. III.B. and III.C. of this BUD Authorization shall require additional review and written approval by the Commissioner, which may include additional analytical characterization of the Residuals.
- D. The Licensee shall distribute for beneficial use, Residuals with a solids content greater than twenty-five percent (>25%) by weight and Residuals passing a Liquid Paint Filter Test.

- E. Residuals shall be distributed from all Sites as identified in this BUD Authorization.
- F. The blending of Residuals with compost, loam and other borrow soils to produce a Finished Product shall not exceed a Residuals content of fifty percent (50%) by volume.
- G. Residuals originating at the Easton WTP shall only be blended at the Easton WTP. Residuals generated at Trap Falls WTP, Putnam WTP, Mianus WTP, Hemlocks WTP shall only be blended at the Trap Falls WTP.
- H. The Licensee shall at all times take reasonable precautions to control fugitive dust emissions and odors in accordance with Section 22a-174-18 and Section 22a-174-23 of the Regulations of Connecticut State Agencies (“RCSA”), respectively.
- I. Proper sedimentation and erosion controls shall be implemented and maintained at all times during activities associated with this BUD Authorization. The Licensee shall adhere to *Connecticut’s Guidelines for Soil Erosion & Sediment Control*, with an effective date of March 2024, as amended.
- J. The Licensee shall visually inspect all outgoing loads of Residuals prior to distribution. For any loads identified that contain greater than ten percent (10%) of non-Residuals material by dry weight or volume, the Licensee shall remove the non-Residuals material before allowing the load to leave the Sites.
- K. The Licensee shall: (a) control all traffic related to operation of the Sites in such a way as to mitigate the queuing of vehicles off-site and excessive or unsafe traffic impact in the area where the Sites are located; (b) unless otherwise exempted, ensure that trucks are not left idling for more than three (3) consecutive minutes pursuant to RCSA Section 22a-174-18(b)(3); and (c) prominently post and maintain signs limiting such truck idling time within the Sites.
- L. The Licensee shall operate the Sites in a safe manner and control fire, odor, noise, spills, vectors, litter and dust emission levels in continuous compliance with all applicable requirements, including those of the Occupational Safety and Health Administration (“OSHA”). The premises shall be maintained and any litter shall be removed on a daily basis.
- M. The Licensee shall ensure employees have sufficient training to identify solid waste received at the Sites which is not permitted to be received, or is unsuitable for processing, and take proper action in managing such waste.

- N. The Licensee shall evaluate the adequacy of the Site's current Stormwater Pollution Prevention Plans relative to all activities associated with the storage of Residuals and as necessary revise said plan.

## V. TESTING, RECORD KEEPING AND REPORTING REQUIREMENTS

### A. Visual Inspection and Analytical Testing Requirements

1. The Licensee shall visually inspect each out-going load of Residuals and record in a daily log the following:
  - a. The tonnage of Residuals sent off-site;
  - b. The origin (i.e., name/location of water treatment plant) of each load; and
  - c. The volume of unacceptable solid waste and/or non-Residuals material contained in each load.
2. The Licensee shall ensure that all Residuals distributed do not contain constituents which would render such material hazardous waste as defined in Section 22a-449(c)-101(a)(1) of the RCSA, incorporating 40 CFR 261.3.
3. Prior to initiating the distribution of any Residuals, the Licensee shall characterize for acceptability such Residuals on a semi-annual basis in May and October. Additionally, the Licensee shall characterize for acceptability such Residuals whenever there is any change in the processes generating the Residuals. The Licensee shall distribute Residuals that have no exceedances of the numeric criteria for soils identified in Appendix A [i.e., residential direct exposure criteria (RES DEC) and Appendix B [i.e., GA/GAA pollutant mobility criteria (GA/GAA PMC)] of Section 22a-133k-1, et seq. of the RCSA (the Remediation Standard Regulations).

### B. Record Keeping Requirements

1. The Licensee shall maintain records of all load inspections conducted of the out-going Residuals for the life of this BUD Authorization or such other period specified in writing by the Commissioner.
2. The Licensee shall maintain records regarding the loads of Residuals distributed and Finished Product and such records shall be maintained for the life of this BUD Authorization, or such other timeframe specified in writing by the Commissioner. Based on such records, the Licensee shall prepare quarterly summaries including, but not limited to, the following information as it pertains to the Residuals and Finished Product:
  - a. Volume or tonnage of Residuals;
  - b. Origin (i.e., name/location of water treatment plant) of each load;

- c. Volume or tonnage of unacceptable material and/or non-Residuals material removed from each load prior to distribution;
  - d. Name and street address of recipients of Residuals;
  - e. Quantities, mixing ratios and location of Residuals blended with other materials to produce the Finished Product;
  - f. Tonnage of Finished Product produced; and
  - g. The Sites on which the Finished Product was placed.
3. Copies of all analytical testing results, including the characterization as required by Condition No. V.A.3. of this BUD Authorization, shall be maintained at the Licensee's main office for a minimum period of ten (10) years from the date such analytical test was conducted.
  4. Records of all locations where Finished Product was placed at the Sites shall be maintained for a minimum period of 10 years at the Licensee's main office at the Sites.

C. Reporting Requirements

1. The Licensee shall submit quarterly reports required by Condition No. V.B.2. of this BUD Authorization no later than January 31, April 30, July 31, and October 31 of each year on forms prescribed by the Commissioner. Such reports shall, at a minimum, include the following information as it pertains to the Residuals and Finished Product:
  - a. Volume or tonnage of Residuals;
  - b. Origin (i.e., name/location of water treatment plant);
  - c. Volume or tonnage of unacceptable material and/or non-Residuals material removed prior to distribution;
  - d. Name and street address of recipients of Residuals;
  - e. Quantities, mixing ratios and location of Residuals blended with other materials to produce a Finished Product;
  - f. Volume of Finished Product produced; and
  - g. The Sites on which the Finished Product was placed.
2. Upon written request from the Commissioner, analytical testing results of the Residuals and records identifying all placement(s) of the Finished Product at the Sites shall be submitted within ten (10) days to the Bureau of Materials Management and Compliance Assurance, Solid Waste Program as specified in Condition VI.B.

## VI. GENERAL CONDITIONS

- A. This BUD Authorization is non-transferable.
- B. Unless otherwise specified in writing by the Commissioner, any reports required to be submitted under this BUD Authorization shall be directed to:

Solid Waste Program  
Waste Engineering and Enforcement Division  
Bureau of Materials Management and Compliance Assurance  
Department of Energy and Environmental Protection  
79 Elm Street, Hartford, CT 06106-5127  
Or via email to [DEEP.Solid&HazWasteReports@ct.gov](mailto:DEEP.Solid&HazWasteReports@ct.gov)

- C. Any document, including, but not limited to any notice, which is required to be submitted to the Commissioner under this BUD Authorization shall be signed by a duly authorized representative of the Licensee, as defined in Section 22a-430-3(b)(2) of the RCSA, and by the individual or individuals responsible for preparing such documents, each of whom shall certify in writing as follows:

“I have personally examined and am familiar with the information submitted in this document and all attachments hereto, and certify that based on reasonable investigation, including my inquiry of those individuals responsible for obtaining the information, the submitted information is true, accurate and complete to the best of my knowledge and belief, and I understand that any false statement in the submitted information may be punishable as a criminal offense.”

Any false statement in any document submitted pursuant to this BUD Authorization may be punishable as a criminal offense in accordance with Section 22a-6 of the CGS, pursuant to Section 53a-157 of the CGS, and in accordance with any other applicable statute.

- D. If at any time the Commissioner determines that any activities authorized herein can reasonably be expected to cause pollution to the waters of the state or otherwise adversely impact human health or the environment, the Commissioner has the sole discretion to terminate such activities. Such activities shall cease, and a closure plan shall be submitted to the Commissioner on or before ten (10) days from the date of written notice from the Department.
- E. This BUD Authorization is subject to, and in no way derogates from any present or future property rights or other rights or powers of the State of Connecticut and conveys no property rights in real estate or material, nor any exclusive privileges,

and is further subject to, any and all public and private rights and to any federal, state, or local laws or regulations pertinent to the location or activity affected thereby.

- F. The Commissioner reserves the right to revoke, suspend or modify this BUD Authorization by the imposition of additional conditions based upon a situation of significant odor, dust, other nuisance, or a determination of actual, or the threat of, adverse impacts from the beneficial use of the Residuals and/or the Finished Product.
- G. Nothing in this BUD Authorization shall relieve the Licensee of other obligations under applicable federal, state, and local laws.
- H. The Licensee shall provide the Commissioner, within seven (7) days or an alternative period prescribed by the Commissioner, any information that the Commissioner may request, and which is deemed by the Commissioner to be relevant in determining whether a cause exists to modify, revoke, or suspend this BUD Authorization or to determine whether the Licensee is complying with the terms and conditions of this BUD Authorization.
- I. The Licensee shall comply with all terms and conditions of this BUD Authorization. This BUD Authorization consists of the conditions contained herein and the specifications contained in the application documents, except where such specifications are superseded by the more stringent conditions contained herein. Violation of any provision of this BUD Authorization may be subject to enforcement action pursuant, but not limited to, Sections 22a-6, 22a-208, 22a-225 and 22a-226 of the CGS.
- J. The Licensee shall submit for the Commissioner's review and written approval all necessary documentation supporting any proposed operational upgrades, improvements and/or minor changes to the activities authorized herein. The Commissioner may issue a written approval only if, in the Commissioner's judgment, the proposed operational upgrades, improvements and/or minor changes: (a) are deemed necessary for a better and more efficient operation and (b) do not significantly change the nature of the activities authorized herein, or their impact on the environment.
- K. Nothing in this BUD Authorization shall affect the Commissioner's authority to institute any proceeding or to take any actions to prevent violations of law, prevent or abate pollution or natural resource damages, recover costs and to impose penalties for violations of law.

- L. The Licensee shall within 120 days of the Commissioner's written notification, or an alternate timeframe specified in such notification, implement a waste analysis plan to include representative sampling and characterization of authorized Residuals distributed from the Sites and Finished Product produced and placed at the Sites. The waste analysis plan shall include but not be limited to Per and Polyfluoroalkyl Substances (PFAS) and any other parameter specified by the Commissioner, using analytical methods and Quality Assurance/Quality Control (QA/QC) requirements acceptable to the Commissioner.
- M. This BUD Authorization shall expire ten (10) years from the date of issuance and may be revoked, suspended, modified, or renewed in accordance with applicable laws.

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Date

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Jennifer L. Perry, P.E.  
Bureau Chief  
Materials Management and Compliance Assurance

Application No. 202302259  
Beneficial Use Determination Authorization No. BUD-015  
Licensee - e-Certified