

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
WATER MANAGEMENT PROGRAM

WATER QUALITY MANAGEMENT PERMIT

NO. 2610201

A. PERMITTEE Integrated Water Technologies, Inc. 150 Clove Road, Suite 1101 Little Falls, NJ 07424	B. LOCATION Municipality <u>Masontown Borough</u> County <u>Fayette</u>
C. TYPE OF FACILITY OR ESTABLISHMENT Industrial Wastewater Treatment Facility	D. NAME OF PLANT, AREA SERVED, ETC. Frac Water Treatment Demonstration Project
E. THIS PERMIT APPROVES 1. Plans for construction of: <input checked="" type="checkbox"/> Treatment Facilities <input type="checkbox"/> Outfall or Headwall <input type="checkbox"/> Impoundment <input type="checkbox"/> Sewers and Appurtenances <input type="checkbox"/> Stream Crossing <input type="checkbox"/> Pump Station <input type="checkbox"/> Injection Well <input type="checkbox"/> 2. <input type="checkbox"/> The discharge of _____ to _____ 3. <input type="checkbox"/> An Erosion and Sedimentation Control Plan. Project Area is _____ acres. 4. <input type="checkbox"/> Preparedness, Prevention, Contingency (PPC) Plan.	
F. THIS APPROVAL IS SUBJECT TO THE FOLLOWING CONDITIONS 1. All construction, operations, procedures, and discharge shall be in accordance with the application dated <u>December 4, 2009</u> , its supporting documentation, and amendments dated through <u>January 14, 2010</u> . Such application, its supporting documentation and amendments are hereby made part of this permit. 2. Conditions <u>3, 4, 5, 6, 8, 9, 11, 12, 15, 16, 17, 18, 19, 20</u> of the Standard Conditions Relating to Industrial Wastes dated August, 1991, which conditions are attached and made part of this permit. 3. Special Conditions designated <u>A, B, C, D, E, F</u> which are attached and made part of this permit.	
G. THE AUTHORITY GRANTED BY THIS PERMIT IS SUBJECT TO THE FOLLOWING FURTHER QUALIFICATIONS 1. If there is a conflict between the application or its supporting documentation and amendments and the standard or special conditions, the standard or special conditions shall apply. 2. Failure to comply with the rules and regulations of the Department or with the terms or conditions of this permit shall void the authority given to the permittee by the issuance of the permit. 3. This permit is issued pursuant to the Clean Streams Law, Act of June 22, 1937, P.L. 1987 as amended, 35 P.S. §691.1 et seq., and/or the Dam Safety and Encroachments Act of November 26, 1978, P.L. 1375, as amended, 32 P.S. §693.1 et seq. Issuance of this permit shall not relieve the permittee of any responsibility under any other law.	
H. PERMIT ISSUED DATE <u>JAN 22 2010</u> BY <u>Samuel C. Harper</u> Samuel C. Harper Water Management Program Manager	

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL RESOURCES
August 1991

STANDARD CONDITIONS RELATING TO INDUSTRIAL WASTES
For Use In Water Quality Management Permits

General

1. The plans for which this permit is issued are approved subject to the condition that the waste treatment plant constructed under said plans will produce an effluent satisfactory to the Department. By this approval, neither the Department nor the Commonwealth of Pennsylvania assumes any responsibility for the feasibility of the plans or the operation of the plant to be constructed thereunder.
2. All relevant and non-superseded conditions of any prior water quality management permits, decrees, or orders issued to the herein permittee or his predecessor shall be continued in full force and effect and together with the provisions of this permit shall apply to his successors, lessees, heirs and assigns.
3. The responsibility for the carrying out of the conditions of this permit shall rest upon the owner, lessee, assignee, or other party in responsible managerial charge of the operation producing the wastewaters and of the waste treatment works herein approved, such responsibility passing with each succession in said control. Approval facilities under a permit shall not be effective as to a new owner until a transfer has been executed and filed on forms provided by the Department and the transfer is approved by the Department.
4. The permittee shall secure any necessary permission from the proper federal authority for any outfall or industrial waste treatment structure which discharges into or enters navigable waters and shall obtain approval of any stream crossing, encroachment or change of natural stream conditions coming within the jurisdiction of the Department.
5. In order to avoid obsolescence of the plans of waste treatment works, the approval of the plans herein granted, and the authority granted in the permit, if not specifically extended, shall cease and be null and void two years from the date of this permit unless the works covered by said plans shall have been completed and placed in operation on or before that date.
6. By this approval, neither the Department nor the Commonwealth of Pennsylvania assume any responsibility for the structural design of the herein, permitted facilities. Failure of the works herein approved because of faulty structural design or poor construction will render the permit void.
7. The Department may at a subsequent time modify, suspend or revoke this permit whenever the waters affected by the presently authorized waste discharge have become so improved in character through natural or artificial processes of conservation or reclamation as to render inimical or harmful the effluent from the works herein approved, or whenever the Department increases general treatment requirements.

Therefore, the permittee is hereby notified that when the Department shall have determined that the public interest requires the further treatment of such of the permittee's industrial wastes as are discharged to the waters of the Commonwealth, then upon notice by the Department and within the time specified, the permittee shall submit to the Department for its approval, plans and a report providing for the required degree of treatment, and after approval thereof, shall construct such works in accordance with the requirements of the Department.

8. If at any time the industrial waste treatment works of the permittee, or any part thereof, or the discharge of the effluent therefrom, shall have created a public nuisance, or such discharge is causing or contributing to pollution of the waters of the Commonwealth, the permittee shall forthwith adopt such remedial measures as are acceptable to the Department.
9. Nothing herein contained shall be construed to be an intent on the part of the Department to approve any act made or to be made by the permittee inconsistent with the permittee's lawful powers or with existing laws of the Commonwealth regulating industrial wastes and the practice of professional engineering, nor shall this permit be construed to sanction any act otherwise forbidden by any of the laws of the Commonwealth of Pennsylvania or of the United States.
10. If future operations by the Commonwealth of Pennsylvania require modification of the stream crossing and/or outfall or there shall be unreasonable obstruction to the free passage of floods or navigation, the permittee shall remove or alter the structural work or obstruction without expense to the Commonwealth of Pennsylvania. If upon the revocation of the permit, the work shall not be completed, the permittee, at his own expense and in such time and manner as the Department may require, shall remove any or all portions of the incompleated work and restore the watercourse to its former condition. No claim shall be made against the Commonwealth of Pennsylvania on account of any such removal or alteration.
11. The permittee must comply with any applicable requirements of Act 1989-32, the Storage Tank and Spill Prevention Act, for above ground and underground storage tanks associated with the treatment facilities approved herein.

Construction

12. The works shall be constructed under expert engineering supervision and competent inspection, and in accordance with plans, designs, and other data as herein approved or amended, and with the conditions of this permit.
13. No radical changes shall be made in the works herein approved without approval of the Department. Revisions which do not increase the rate of flow or increase pollutant concentrations in the effluent, the treatment processes or the point of discharge, may be approved by the Department upon submission of plans and specifications. Other revisions must be approved by a permit.
14. The local waterways patrolmen of the Pennsylvania Fish Commission shall be notified when the construction of any stream crossing and/or outfall is started and completed. A permit must be secured from the Pennsylvania Fish Commission if the use of explosives is required. The permittee shall notify the local waterways patrolmen when explosives are to be used.
15. The permittee shall comply with Chapter 102 of the Department's Rules and Regulations and the Department's standard conditions relating to erosion control.

Operation and Maintenance

16. No matter how well designed and carefully constructed a waste treatment works may be, full effectiveness cannot be developed unless it is efficiently operated. In order to secure such efficiency, protect the waters of the Commonwealth, and insure the most effective and economical dosage when chemicals are used, the permittee is required to place the works under the regular charge of a responsible plant official, and its operation under the control of the designer of the works or other qualified person, for at least one year after completion. Moreover, upon written notice from the Department, the permittee shall maintain one or more skilled operator regularly on duty for such daily periods as the Department may direct.

17. No untreated or ineffectively treated wastewaters shall at any time be discharged into the waters of the Commonwealth, and special care shall be used to prevent accidental "spills" or similar unusual discharges of all raw, finished and waste materials.
18. No storm water, sewage or other industrial wastes not specifically approved herein, shall be admitted to the works for which this permit is issued, unless with the approval of the Department.
19. The various structures and apparatus of the industrial waste treatment works herein approved shall be maintained in proper condition so that they will individually and collectively perform the functions for which they were designed. In order to insure the efficacy and proper maintenance of the treatment works, the permittee shall make periodic inspections at sufficiently frequent intervals to detect any impairment of the structural stability, adequate capacity, or other requisites of the herein approved works which might impair their effectiveness, and shall take immediate steps to correct any such impairment found to exist.
20. Any screenings, and any settled or floated solids, shall at no time be permitted to accumulate in sedimentation basins to a depth sufficient to interfere with the settling efficiency thereof. Any such material removed shall be handled and disposed of so that a nuisance is not created and so that every reasonable and practical precaution is taken to prevent the said material from reaching the waters of the Commonwealth, in accordance with applicable state and federal regulations regarding disposal of residuals.
21. Prior to the disposal of sludge from the herein approved facilities, the permittee shall obtain written approval from the Department for the method of sludge disposal.
22. The discharge of untreated or improperly treated industrial wastes to the waters of the Commonwealth is contrary to the requirements of the Department. If, because of accidental breakdown of the treatment works or plant equipment or for other reason, any such discharge should occur, then the operation of the mill or process producing such discharge shall be discontinued until repairs to the treatment works or other satisfactory measures to prevent water pollution shall have been completed. Any such occurrences must be reported verbally to the Department within 24 hours of such occurrence.
23. If at any time the Department determines that the discharge permitted herein creates a public nuisance or causes environmental harm to the receiving water of the Commonwealth, the Department may require the permittee to adopt such remedial measures as will produce a satisfactory effluent. If the permittee fails to adopt such remedial measures within the time specified by the Department, the right to discharge herein granted shall, upon notice by the Department, cease and become null and void.

SPECIAL CONDITIONS FOR PART II PERMIT 2610201

- A. This permit shall be effective for a period of seven (7) days beginning on the date of commencement of the treatment operations for which this permit is issued. The permittee shall notify the Chief of the Permitting Section at DEP's Southwest Regional Office, Water Management Program at least 24 hours prior to commencement of the treatment operations. Requests to extend the effective period of this permit should be directed to that same office.
- B. At no time shall the treatment facilities authorized by this permit discharge raw or treated waters to any water of the Commonwealth.
- C. Sludges and other solids shall be handled and disposed of in compliance with the Solid Waste Management Act of 1980 (Act 97) and with 25 Pa. Code, Chapters 261, 262, 263, and 264 (related to permits and requirements for landfilling and storage of hazardous sludge) and applicable federal regulations, the Federal Clean Water Act, RCRA, and their amendments.
- D. Sludges and other solids shall be handled and disposed of in compliance with the Solid Waste Management Act of 1980 (Act 97) and with 25 Pa. Code, Chapters 287, 291, and 299 (relating to residual waste generators) and 288 and 289 (relating to residual waste landfills and impoundments) and the Federal Clean Water Act and its amendments.
- E. All concentrated brine must be handled and disposed of in accordance with the Solid Waste Management Act and the regulations promulgated thereunder. The concentrated brine generated by the treatment facility permitted herein shall be sent to the salt processing facility located in Rochester, New York for processing/disposal as proposed by the permittee.
- F. The authority provided pursuant to this permit to construct and operate the subject facility terminates on March 31, 2010.