



Jeremiah W. (Jay) Nixon, Governor • Sara Parker Pauley, Director

## DEPARTMENT OF NATURAL RESOURCES

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OCT 08 2013

Mr. Brian Power  
Area Environmental Manager  
Republic Services, Inc.  
13570 St. Charles Rock Road  
Bridgeton, MO 63044

RE: Leachate Pre-Treatment System Plan, Bridgeton Landfill, Permit Number 0118912, St. Louis County

Dear Mr. Power:

This letter is sent in response to a submittal titled "Leachate Pre-Treatment System Plan" (Plan), dated August 30, 2013, to the Missouri Department of Natural Resources' (Department) Solid Waste Management Program (SWMP), received September 3, 2013, and prepared by Ivan Cooper, P.E., of Civil and Environmental Consultants, Inc. (CEC). The Plan was submitted pursuant to Section 17.D. of the First Agreed Order Case No. 13SL-CC01088. The Plan proposed a multi-step treatment process to reduce the constituents of concern in the facility's leachate to the standards set by the Metropolitan St. Louis Sewer District (MSD) for direct discharge. It included a narrative describing the ongoing testing methods, the preliminary design of the facility, operation and maintenance considerations, flow diagrams, detailed specifications and control narratives for the proposed equipment, and a set of plan sheets titled "Treatment Building Construction Plans for Bridgeton Landfill" dated August 2013, signed and sealed by Ivan Cooper, P.E., and Kevin T. Kamp, P.E., of CEC.

The SWMP has reviewed the submittal for compliance with the Solid Waste Management Law and regulations and hereby approves the construction **only** of the Pre Treatment Plant (PTP) within the Bridgeton Landfill's permitted boundary. However, in addition to the outstanding issues as previously stated in the SWMP letter dated August 29, 2013, including a post development comprehensive leachate management plan (LMP), an Operational Maintenance and Monitoring Plan (OM&M), and a detailed facility piping plan, the SWMP has determined the Plan requires additional information before the PTP and the four one-million gallon tanks can be operated.

Please review the following comments specific to the Plan and accompanying plan sheets and respond accordingly:

### COMMENTS:

1. Due to the ongoing evaluation of treatment processes, a revised version of the Plan shall be submitted once the final design has been completed. In addition to any design modifications, please review the following and incorporate into the Plan:
  - a) Page 2 – Please specifically name the table and specify the source of the values listed.

- b) The design flow for the PTP is based on 300,000 gallons per day; however, the facility has previously eclipsed this generation amount. Please state when additional capacity may be added if the design cannot maintain the amount of liquid generated from the landfill.
  - c) Please provide any contingency plans for the operation of the PTP if a tank is under maintenance, etc. and cannot be used in the treatment process (i.e., The Plan designates that TK-200 will receive the landfill leachate directly for equalization before it moves to the PTP). Is there a plan to bypass this tank and redirect the leachate to one of TK-307A, B, C or D?
2. Due to the ongoing evaluation of treatment processes and the potential for the interior configuration to be modified while the final design is established, two (2) sets of revised plan sheets will need to be submitted to the SWMP once all process/flow diagrams have been finalized. In addition to the potential configuration modifications to the building, piping between tanks, etc., please review the following and incorporate into the as-builts accordingly:
- a) C200, P-100, P-505, etc., show leachate being transferred from the 316k tank to the million gallon tanks or the buffer tank farm. Revise the applicable sheets to show all piping connections as if the PTP and the four one million gallon tanks are completed and operational.
  - b) A102 and P-504 show rooftop exhaust units and air duct layouts connected to the treatment tanks with an indicated air purification pad. Explicitly show the connections and the location of the thermal oxidizer unit or other air emission control measures.
  - c) A103 – Please revise to definitively show where the floor sumps will discharge to.
  - d) P-300 and P-305 indicate TK-205 has a size of 15,000 gallons and 20,000 gallons, respectively. Revise the applicable sheets accordingly.
  - e) P-301 and P-305 do not show the cooling process in the flow diagrams. Revise accordingly to incorporate this step.
  - f) P-305 and P-308 do not include TK-206 in the flow diagrams as indicated in other plan sheets. Revise the applicable sheets accordingly.
  - g) P-403 shows TK-410 discharging to MX-411 which contradicts P-305 indicating TK-410 discharging to TK-413. Revise the applicable sheets accordingly.
  - h) P-501 – Please revise to clearly depict the piping within the PTP connecting to exterior tanks, including the pipes running from TK-200 to TK-201, pipes from TK-307A, B, C&D through the cooling process to MBR-308A&B, pipes from MBR-308A&B to the 97,000 gallon MSD discharge tanks, pipes from TK-414 to TK-200, etc.
  - i) P-505 – Please revise the notation of Pipe Support Section detail to D/P-505. In addition, include supplementary details for the transfer pumps systems P-307A3, A4, B3, C3, C4, and D3.

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- j) P-506 shows a 34 inch diameter duct into a scrubber stack. Include additional details regarding the scrubber stack and the locations of other air emission control measures.
3. All information regarding the revised Plan's final design and plans sheets should be incorporated into the comprehensive LMP and the detailed facility piping plan.

The Department's Water Protection Program (WPP) is performing a cursory review of the Plan and is requiring a land disturbance permit for this project.

This letter does not approve that the proposed treatment system will meet the requirements set by MSD, and it shall be Republic Services' responsibility to manage and treat the leachate in accordance with the standards for discharge and acceptance to MSD.

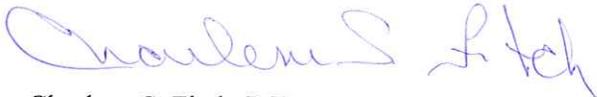
This approval is not to be construed as compliance with any existing federal or state environmental laws other than the Missouri Solid Waste Management Law; nor should this be construed as a waiver for any other regulatory requirements. This approval is not to be construed as compliance with any existing local permitting or zoning ordinances; nor does it supersede any local permitting and/or zoning requirements.

The Department reserves the right to revoke, suspend, or modify this approval and/or Permit Number 0118912 after due notice for failure to maintain compliance with the Missouri Solid Waste Management Law and regulations, the terms and conditions of the permit and approved engineering plans and specifications.

If you have any questions or comments, please contact Mr. Brian Roth-Roffy or Mr. J. P. Boessen, of my staff at (573) 526-3940 or at P.O. Box 176, Jefferson City, Missouri 65102-0176.

Sincerely,

SOLID WASTE MANAGEMENT PROGRAM



Charlene S. Fitch, P.E.  
Chief, Engineering Section

CSF:brl

- c: Ivan Cooper, P.E., Senior Project Manager, Civil and Environmental Consultants, Inc.  
Mr. Joseph Binbeutel, Attorney General's Office  
Mr. Refaat Mefrakis, Chief, Engineering Section, Water Protection Program  
Ms. Laura Yates, St Louis County Department of Health  
Mr. Joe Trunko, St. Louis Regional Office  
Mr. Larry Lehman, Chief, Compliance/Enforcement Section, SWMP