

Yonkers WRRF Air State Facility Permit Fact Sheet

- **Project:** Yonkers WRRF Air State Facility Permit
- **Applicant:** Westchester County Department of Environmental Facilities (DEF)
- **Facility:** Yonkers WRRF - 1 Fernbrook Street
- **NYSDEC Application Number:** 3-5518-00342/00038
- **A Public Participation Plan (PPP) has been developed in accordance with NYSDEC Commissioner Policy 29, Environmental Justice and Permitting (CP-29)**

What are the Proposed Projects?

The Yonkers Joint Water Resource and Recovery Facility (YJWRRF) is a municipal wastewater treatment plant located at 1 Fernbrook Street, Yonkers, NY 10705. The YJWRRF provides primary and secondary treatment of wastewater generated from portions of southern and western Westchester County. The facility is currently permitted to treat 120 million gallons per day (MGD) from June 1st to October 31st, and 145 MGD from November 1 to May 31st, pursuant to a State Pollution Discharge Elimination System (SPDES) permit issued by NYSDEC. The plant maintains several combustion sources such as digester gas fueled boilers, a digester gas and natural gas fueled engine, emergency generator and flares. In addition, the plant also maintains several odor control systems.

The facility currently operates under a Title V air permit. The applicant has applied to the New York State Department of Environmental Conservation (NYSDEC) for an air state facility permit with lower emission thresholds than the Title V air permit. The Title V air permit will be discontinued, and the facility will operate under the new air state facility permit.

Two projects are proposed at the facility under the new air state facility permit application. The first proposed project will replace two existing inoperable combustion engines with two new combined heat and power (CHP) engine generators. These engines convert digester gas into energy for the facility. The engines were installed in 1978 and, when functioning, were under a weekly run time cap. The new engines will be under the facility-wide cap. The existing combustion engines have been inoperable for several years, requiring the facility to utilize energy from the grid and waste most of the digester gas in the flares. The use of the new engines will represent an increase in emissions compared to recent years when the old combustion engines were not in use, but a reduction compared to when they were in use. The new CHP engine generators will be provided with oxidation catalysts on the exhaust, will be installed in the same location as the combustion engines, and will utilize the existing exhaust stacks. Additionally, an oxidation catalyst will be added to the existing heat recovery engine exhaust to reduce emissions.

The second proposed project will add four new dual bed carbon absorbers to provide odor control during primary tank maintenance and two enclosed waste gas burners to replace three existing open/conventional flares. The new ventilation system is designed to more efficiently handle the odorous air during maintenance. This new ventilation and odor control system will be installed to service the existing Primary Tanks during routine maintenance periods. Improvements include new ductwork, new tank covers with hatch openings for ventilation, and a central odor control system with a supply fan and four dual bed carbon adsorbers. The plant's existing open/conventional flares installed in the 1970's are nearing the end of their life so these flares will be replaced with new enclosed burners. The new enclosed burners that offer higher destruction efficiency and lower emissions will be elevated above the design flood elevation (DFE) as part of an ongoing Flood Protection Project. An architectural barrier and a surrounding barrier curb will be installed, and waste gas burner equipment will be relocated above the DFE to prevent flooding.

The purpose of this fact sheet is to inform the public of these projects and to involve the community during the NYSDEC permit application review process.

Why does Westchester County Dept of Environmental Facilities need to apply for an air state facility permit to comply with environmental regulations and improve the operational efficiency and environmental performance of the YJWRRF?

The Westchester County Dept of Environmental Facilities YJWRRF (Yonkers Joint Wastewater Resource Recovery Facility) currently operates under a Title V Air Permit. Given the current and proposed future emissions, the facility has the capacity to meet the requirements of a Title V Air Permit, but will utilize caps on operations to instead be permitted under an Air State Facility Permit. The Air State Facility Permit ensures the YJWRRF continues to meet environmental standards and operates efficiently and will be renewed every 10 years. The following upgrades are necessary to modernize the facility, comply with environmental regulations, and minimize its impact on the surrounding community:

- **Replacing older engines:** Two new, more efficient lean burn engines are proposed for the facility to replace the old inoperable combustion engines. The use of the new engines will represent an increase in emissions compared to recent years when the old combustion engines were not in use, but a reduction compared when they were in use. They will also improve the efficiency of the use of the digester gas.
- **Upgrading waste gas burners:** Two new enclosed waste gas burners will replace three older, open flares. This will enhance safety and reduce environmental impact by better controlling emissions.
- **Improving odor control:** Four new dual bed carbon absorbers will be installed to provide better odor control during primary tank maintenance, improving air quality for nearby residents.

How might the project affect the surrounding community?

The project will improve air quality and reduce emissions, benefiting the surrounding community by optimizing the use of digester gas and replacing outdated equipment. Noise and odor pollution will be minimized, enhancing the quality of life for nearby residents. Additionally, the facility's appearance will improve with an aesthetically pleasing barrier around the new waste gas burners.

How can I participate in the permit review process?

- Ask questions, express concerns, provide input or submit by comments in writing, by phone or by the email identified below.

Where can I get more information about the proposed project?

- Visit the online document repository at: [Yonkers Air Permitting](https://environment.westchestergov.com/wastewater-and-water-division/yonkers-joint-wrrf-air-permitting) (<https://environment.westchestergov.com/wastewater-and-water-division/yonkers-joint-wrrf-air-permitting>) to obtain application materials, relevant documents, and information about the project.
- Contact WCDEF by phone at: 914-813-5420, by email at: airpermittingcomments@WestchesterCountyNY.gov or in writing at: 270 North Avenue, New Rochelle, New York 10801, for information on the project or to find out about the status of the permit application and public comment period.

Who is responsible for reviewing the Permit Application?

- NYSDEC manages the State Facility Air Permit compliance.
- NYSDEC Region 3 Headquarters, 21 South Putt Corners Road, New Paltz, NY 12561, is responsible for reviewing and issuing the required permits. Tel: (845) 256-3000; email: DEP.R3@dec.ny.gov