

**RHODE ISLAND DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF WATER RESOURCES**

**GUIDELINES FOR SUBMITTING AN APPLICATION FOR APPROVAL FOR A
MARINE SEWAGE PUMPOUT FACILITY
DISCHARGING TO AN EXISTING SEWER SYSTEM**

INTRODUCTION

Any proposed marine sewage pumpout facility that discharges to an existing sewer system in Rhode Island must apply for approval from the Rhode Island Department of Environmental Management, Office of Water Resources (RIDEM), for its design before construction. These guidelines are meant to help applicants meet the minimum design standards. After reviewing the application, RIDEM may provide comments that the design lead must address before approval is granted. Be aware that additional programmatic requirements beyond these guidelines might apply if the applicant seeks federal or state funding. **PLEASE STOP HERE if the proposed marine sewage pumpout facility will discharge to an on-site holding tank. In such cases, approval from the Rhode Island Department of Environmental Management, Office of Water Resources – Onsite Wastewater Treatment System (OWTS) Section is required, in accordance with Part 6.29 of RIDEM’s OWTS Regulations.**

GENERAL SUBMITTAL REQUIREMENTS

- ☐ Completed "[Application for Approval - Marine Sewage Pumpout Facility and Sewer System Expansion/Modification](#)" form.
- ☐ Two complete sets of design drawings and specifications, as described below.
- ☐ All relevant design calculations, as described below.
- ☐ Submit the original forms and documents to:

Department of Environmental Management
Office of Water Resources - Shellfish Program
235 Promenade Street
Providence, R.I. 02908
DEM.Shellfish@dem.ri.gov

APPLICATION FORM

The completed application form must be signed in the Regulatory/Administrative section (page 2) by the designated municipal or sewer commission official(s) responsible for reviewing and approving sewer system expansions and/or modifications. These signatures certify that the flows from the proposed marine sewage pumpout facility will be accepted for conveyance to and treatment at the designated Wastewater Treatment Facility (WWTF).

DESIGN PLANS

Note: The level of detail presented in the plans should be commensurate with the project's complexity.

- Locus map of the area in concern, highlighting the location of the proposed facility.
- General site plan detailing all components of the proposed system, including the direction of flow.
- Detailed drawings as described below:

Plan Views:

- a) Geographical features such as topographical contour elevations, surface water bodies, a north arrow, scale, etc.
- b) The boundary and elevation of the 100-year flood plain, where applicable.
- c) Existing or planned streets and their names.
- d) Existing utilities.
- e) Proposed facilities, pipelines, and flow directions.
- f) Designated docking space for pumpout access
- g) Depth of water around designated docking space

Profile Views:

- a) Elevation of existing ground level, proposed grading, and water elevations and depths.
- b) Elevations of existing utilities, proposed piping, and appurtenances.
- c) Appropriate stationing.
- d) Labeled pipe slopes, sizes, and materials.

Typical Construction Details:

Include "typical" and "special" construction details and supplementary views, such as paving cross-sections, trench cross-sections, manholes, and pipe jointing. **A detail of the connection of the proposed system to the existing sewer system must also be provided.**

- When the marine sewage pumpout unit is planned to be near gas pumps or other fuel sources, a reasonable distance of 15-20 ft. should be kept between the pumpout unit and any fuel pump, if possible. If site limitations prevent a reasonable separation, then the pumpout unit must be equipped and installed with explosion-proof electrical components.

SPECIFICATIONS

- Construction techniques and requirements.
- Material and appurtenance specifications.
- The above may be included as general notes and typical details in the design plans, if appropriate.
- Include product details and "cut-sheets" if the manufacturer or supplier has been selected.
- Pump specifications and performance curves.
- Operation and Maintenance Plan including:
 - a) Winterization and winter shutdown procedures.
 - b) Spring start-up procedures.
 - c) Recommended maintenance.
 - d) Storm protection procedures.
 - e) General operation procedures
 - f) Safety: health protection, spill prevention, and emergency procedures

DESIGN COMPUTATIONS

- An estimate of the flows expected from the proposed pumpout facility considering the capacity of the proposed pumping unit (gallons per minute), the volume of an average boat's holding tank, and the maximum pumpout requirement during the peak boating season. This provides a conservative estimate of the expected flow to prevent limiting the facility's capacity for future expansion, while still offering an approximation of the flows to the receiving WWTF. Approval will be based on the seasonal maximum daily flow. An example calculation is as follows: 8 hours of daily pumpout operation $\times$ 4 boats per hour $\times$ 25 gallons per boat holding tank = 800 gallons per day maximum during peak boating season. The 4 boats per hour reflects roughly 15 minutes per boat to dock, connect to the pumpout unit, pump out the holding tank, and depart. Therefore, a maximum of 4 boats per hour can potentially use the pumpout unit.
- Calculations demonstrating the pumps' ability to overcome the related suction and discharge heads.
- Calculations showing the hydraulic capacity of the proposed conveyance piping from the pumpout facility to the existing municipal wastewater collection system. Calculations should also demonstrate that the downstream piping, pumping stations, and WWTF have sufficient capacity for the proposed flows.
- Calculations showing adequate cleansing velocities in proposed force mains (>3 fps) and gravity piping (>2 fps).