Sunamachi Water Reclamation Center

Sunamachi Water Reclamation Center is the second oldest water reclamation center in Tokyo. The treatment area (6,153ha) covers “Koto-delta” surrounded by the Sumidagawa river and the Arakawa river. Wastewater coming from Sumida-ward, Koto-ward and some parts of Chuo-ward, Adachi-ward, Edogawa-ward and Minato-ward is treated here together with Ariake Water Reclamation Center in the New Tokyo waterfront subcenter.

The treated wastewater is discharged to Tokyo Bay. A part of the treated wastewater is filtered and used inside this center for cleaning facilities, cooling machines and flushing toilets.

The generated sludge is mixed with those from Mikawashima and Ariake Water Reclamation Centers and carbonized and incinerated at the Tobu Sludge Plant located in this center.

General data on this center
Operation started in Feb. 1930
Site area: 788,700m²
Treatment capacity: 678,000m³/d
Water treatment facilities
  Grit chambers: 42
  Primary sedimentation tanks: 22
  Reaction tanks: 22
  Secondary sedimentation tanks: 22

Average water quality

<table>
<thead>
<tr>
<th></th>
<th>Intake</th>
<th>Discharge</th>
<th>Standards*</th>
</tr>
</thead>
<tbody>
<tr>
<td>BOD</td>
<td>110</td>
<td>3</td>
<td>-</td>
</tr>
<tr>
<td>COD</td>
<td>63</td>
<td>12</td>
<td>≤35</td>
</tr>
<tr>
<td>T-N</td>
<td>30</td>
<td>12</td>
<td>≤30</td>
</tr>
<tr>
<td>T-P</td>
<td>2.9</td>
<td>1.6</td>
<td>≤3.0</td>
</tr>
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</table>

*The water quality standards of the Tokyo Metropolitan Environmental Security Ordinance

Stormwater storage tank
Stormwater from the area of 500ha is stored in the tank (capacity: 65,800m³) to reduce the damage from inundation. Stored stormwater is pumped to Sunamachi Water Reclamation Center and treated there. The ground over this storage tank is used for apartment buildings and bicycle-parking spaces.

Regional air-conditioning system
In some buildings surrounding this center, heat from treated wastewater and sludge incinerator is used as an alternative source of heat to gas or electricity produced from fossil fuel. This system contributes to prevention of global warming by reducing CO₂ emission.

NaS battery for power storage
By using NaS battery charged during the night in the daytime, a drastic reduction of the cost for electricity is expected.