SCHOOL ACHIEVES DISCHARGE COMPLIANCE

Background:
Salisbury Christian School, located in Salisbury MD, has a facility that was constructed approximately ten years ago. A conventional biological treatment system was installed at that time that proved inadequate for the purpose, and could not meet the existing discharge requirements, never mind new proposed more stringent standards.

In 2009, Dynatec installed a HiRate™ membrane bioreactor system, which is an out-of-basin ultrafiltration system. This design allows the use of thermo-plastic tanks, reducing the capital cost.

Discharge Limits:
The discharge from the system goes to a drip field. The discharge results are as follows:

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Influent Design</th>
<th>Effluent Design</th>
<th>Effluent Actual</th>
<th>Reduction %</th>
</tr>
</thead>
<tbody>
<tr>
<td>BOD5</td>
<td>360</td>
<td>&lt;10</td>
<td>&lt;5</td>
<td>&gt;98</td>
</tr>
<tr>
<td>TSS</td>
<td>230</td>
<td>&lt;15</td>
<td>&lt;2</td>
<td>&gt;99</td>
</tr>
<tr>
<td>TKN</td>
<td>164</td>
<td>N/A</td>
<td>N/A</td>
<td></td>
</tr>
<tr>
<td>N-Total</td>
<td></td>
<td>&lt;8</td>
<td>&lt;5</td>
<td>&gt;96</td>
</tr>
</tbody>
</table>

Dynatec Scope of Supply:
Dynatec provided the complete treatment systems, consisting of the following components:
- EQ lift pumps
- Brushed screen with transfer pumps
- Anoxic reactor with supplementary carbon addition
- Aerobic reactor with DO control and pH control
- Ultrafiltration system
- Blower skid, including EQ tank mixing/aeration
- System controls

Operator requirements are limited since the system is self controlling once the operating parameters are set up. Alarm outputs warn the operator of out-of-spec conditions.