**Section 371.263 Chapter III − Description, Operation and Control of Pumping Stations and Collection Systems**

a) Include a layout illustration that clearly shows the following:

1) The layout of the collection system;

2) The locations of the collection system appurtenances with all manholes numbered;

3) The locations of all pumping stations, force mains, and air relief valves;

4) The locations of standby generators or pumping equipment;

5) The locations of any bypasses or alternate flow paths.

b) Trace the wastewater flow through the pumping stations and collection system and describe the operation of each unit or appurtenance in detail. The following information for each unit must be provided:

1) Purpose

2) Equipment

A) Manufacturer

B) Model number

C) Number of units

D) Description of equipment

3) Unit illustration **−** individual unit drawings, diagrams, etc., which clearly illustrate the following:

A) Piping layout

B) Numbered valves, check valves, flap gates, etc.

C) Pumping equipment

D) Any bypasses and alternate flow paths

4) Relationship to other units

5) Operation

A) Initial start-up

B) Normal operation

C) Alternate modes of operation

D) Bypassing, shut-down, and drainage

E) Emergency operation

6) Controls

A) Flow controls

B) Electrical controls

C) Laboratory and other process control techniques, if applicable

7) Operational problems

A) Unit problems

B) Mechanical problems

C) Troubleshooting guides

8) Routine maintenance considerations

A) Schedule for inspection, cleaning, lubrication, adjustment, calibration, painting, and any other routine maintenance activities. Maintenance tasks must be scheduled on a daily, weekly, monthly, quarterly, semi-annual, and annual basis. If appropriate, use "hours of operation" to schedule preventive maintenance for equipment.

B) List the materials, including paints and lubricants, needed to maintain each unit.

c) Provide illustrations of manholes, drop manholes, and house connections typical for this project.

d) Include a valve index with the following information:

1) Number all valves as shown in the unit illustrations required in subparagraph (b)(3) above.

2) Identify the size and type of all valves.

3) Indicate the normal operational setting, i.e., open, closed, etc. for each valve listed.

e) Discuss the importance of numbering and tagging the valves in accordance with the valve index.

f) List the references in the O&M library that supplement discussions of:

1) Operation

2) Maintenance

3) Operational problems and troubleshooting

4) Laboratory and other process control techniques