**Section 371.226 Chapter VI − Laboratory**

a) Discuss the laboratory in general, stressing the importance of laboratory testing. Discuss the purposes of laboratory testing which include:

1) Process control

2) Effluent monitoring

3) Historic data collection

b) Define composite and grab sampling.

c) List and define the process control tests required for this facility. Cite specific pages and sections in the references maintained in the O&M library for thorough procedures for each test.

d) Include sample worksheets for these process control tests with instructions for completing these sheets.

e) Interpret these process control test results and give the operational application of each. Discuss the anticipated ranges of results for each test.

f) List and define all tests required in the NPDES permit.

g) Cite specific pages and sections in the laboratory references maintained in the O&M library for thorough procedures for each test.

h) Include sample laboratory worksheets, which meet NPDES requirements for record keeping, for all NPDES analyses and instructions for completing them.

i) Locate all sampling points for NPDES and process control testing and show these points on a drawing.

j) Outline a comprehensive sampling program for NPDES and process control testing.

k) Outline a quality assurance program that ensures the accuracy of the test results.

l) Discuss laboratory records including the following information:

1) Discuss what laboratory records are to be kept such as:

A) Discharge Monitoring Reports;

B) Laboratory worksheets and records of raw data;

C) Calibration records for flow metering and laboratory equipment;

D) Quality assurance records;

E) Strip charts, flow charts, or any other records from continuous monitoring equipment;

F) Effluent non-compliance and by-pass reports;

G) Records of major contributing industries which use the treatment works;

H) Any other laboratory records necessary for this facility.

2) Discuss how the records are to be kept.

3) State for how long the records must be kept.

4) Discuss trend charts and other similar visual operational aids.

m) Schedule the periodic updating of the page numbers of approved lab procedures which are referenced in the O&M Manual.

n) List the laboratory references maintained in the O&M library.