TITLE 35: ENVIRONMENTAL PROTECTION

SUBTITLE C: WATER POLLUTION

CHAPTER II: ENVIRONMENTAL PROTECTION AGENCY

PART 371
REQUIREMENTS FOR PLANS OF OPERATION AND OPERATION AND MAINTENANCE MANUALS

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Section

AUTHORITY: Implementing Sections 4(1), 4(m) and 12(b) and authorized by Section 4(1) and (m) of the Environmental Protection Act (Ill. Rev. Stat. 1981, ch. 111 1/2, pars. 1004(1), 1004(m), 1012(b), and 1004(1) and (m)).

SOURCE: Adopted at 5 Ill, Reg. 7843, effective October 1, 1981; codified at 7 Ill. Reg. 6920.

SUBPART A: INTRODUCTION

<BSection 371.101 Statutory Authority>>

These rules are adopted by the Illinois Environmental Protection Agency (Agency) pursuant to Section 4(1) and (m) of the Environmental Protection Act (Illinois Revised Statutes 1981, Chapter 111 1/2, par. 1004), (Act) and implement 40 CFR 35.935-12.

<BSection 371.102 Purpose>>

The Agency administers federal and state grant programs for the construction of wastewater treatment works for which Plans of Operation (PO) and Operation and Maintenance (O&M) Manuals must be prepared under the grant agreement. These rules state the requirements for preparing these documents and submitting them to the Agency. These rules are subject to interpretation by the Agency in accordance with the Delegation Agreement between the Agency and the United States Environmental Protection Agency and applicable federal guidance documents.

<BSection 371.103 Definitions>>

Terms used in these rules are defined as in the Clean Water Act, (33 U.S.C. 1251 et seq.), the Environmental Protection Act, and applicable regulations adopted pursuant to each statute.

SUBPART B: INTRODUCTION TO PLANS OF OPERATION

<BSection 371.120 Introduction>>

a) A PO identifies specific actions, related start and completion dates, and other supportive information necessary to assure that the wastewater treatment facility and all associated personnel are properly prepared for start-up and continued operation. Actions identified will fulfill technical and administrative requirements for efficient and reliable performance.
b) A PO is required for all federal grant projects which started construction after November 29, 1976. A PO is required for all state grant projects which started construction after August 18, 1978.
c) Plans of Operation shall be submitted as follows:

1) One copy of the preliminary PO must be submitted with the plans and specifications for the project during Step 2 of the construction grants process.
2) Two copies of the final PO must be submitted with the draft O&M Manual for the project before 50% of the grant payment of a Step 3 grant can be made. One copy of the approved final PO will be retained by the Agency.
3) All POs must be submitted for review to:
Illinois Environmental Protection Agency
Division of Water Pollution Control
Grant Administration Section
2200 Churchill Road
Springfield, Illinois 62706

d) In preparing the PO, grantees are encouraged to use their own operations staff, with input as necessary from consulting engineers and other appropriate sources. The PO is as important to facility operation as construction scheduling is for construction. Grantees will be expected to keep the PO current.

SUBPART C: GENERAL REQUIREMENTS FOR PREPARING PLANS OF OPERATION

<BSection 371.140 General Requirements for Preparing Plans of Operation>>

a) Since the PO is prepared as a part of a grant contract approved by the Agency, the schedules provided as a part of the PO are legally enforceable. These schedules in the PO must conform to the schedules provided in the grantee's NPDES permit, the grantee's grant offer, and any applicable orders, whether the result of an enforcement action or variance petition, issued by the Pollution Control Board. For the preliminary PO, tentative dates may be used in implementation schedules and may be expressed as "percent completion of construction" or "days before operational start-up." Specific dates must be used for implementation schedules included in the final PO.
b) Municipal wastewater treatment projects vary considerably in size and complexity and the degree of detail in the PO must reflect this variation. The information included in the PO must be tailored to the specific needs of each individual project.

SUBPART D: ELEMENTS OF PLANS OF OPERATION

<BSection 371.160 Introduction>>

a) The introduction shall state the purpose and use of the PO.
b) The introduction must briefly describe the scope of the construction grant project and the wastewater treatment facilities being constructed, modified or expanded.

<BSection 371.161 Chronological Summary of Required Actions>>

The PO must contain a summary of all actions which are necessary to assure efficient and reliable start-up and continued operation of the wastewater treatment facilities. The summary must list the actions in chronological order and reference the portions of the PO where each action is discussed in detail. Related implementation dates must be included for each action listed. All applicable actions from the following list, along with any necessary additional actions, must he listed in the chronological summary and discussed in subsequent sections of the PO.

	START	END	PLAN OF OPERATION
<PACTION>>	<PDATE>>	<PDATE>>	<PREFERENCE SECTION>>
Prepare and submit the Start-Up Services proposal to the Agency.			
Construct the treatment facilities.			
Submit the draft O&M Manual to the Agency.			
Submit the final PO to the Agency.			
Publish the new sewer use ordinance to accommodate industrial discharges.			
Publish the industrial pretreatment ordinance.			
Employ Chief Operator (Superintendent).			

Review user charge and industrial cost recovery systems.

Employ Senior Operator.

<PACTION>>	START <PDATE>>	END <PDATE>>	PLAN OF OPERATION <PREFERENCE SECTION>>

Employ Chief Chemist.

Review budget considerations for initial operation.

Begin influent sampling program.

Begin development of a detailed emergency procedures plan.

Begin development of detailed guidance on the employee safety training program.

Identify all of the unusual waste discharges.

Finalize the system and procedures for notification of unusual industrial waste discharges.

Identify actions and assignments to be accomplished by other city departments. Coordinate the action plan.

Identify and begin acquiring equipment and materials to implement the emergency operation plan.

Finalize cooperative assistance agreements with other agencies.

Assemble manufacturers' manuals and

other equipment literature.

Begin development of the action plan for process control and "fine tuning."

Employ shift operators.

Employ maintenance crew.

Conduct training on equipment maintenance.

Begin acquiring inventory of tools and spare parts.

<PACTION>>	START <PDATE>>	END <PDATE>>	PLAN OF OPERATION <PREFERENCE SECTION>>
Begin acquiring lubricants for new equipment.			
Review and update the operating budget and revenue program.			
Begin acquiring laboratory supply inventory including test reagents.			
Begin employee training in emergency procedures.			
Finalize O&M Manual.			
Start review of laboratory analytical and reporting requirements with operators and laboratory staff.			
Conduct training in heavy metals sample collection and analysis with laboratory staff.			
Start safety training program.			

Review and approval of final O&M Manual by Chief Operator.

Acquire a stock of laboratory records, calculation sheets, and reporting sheets.

Start review of process control and detailed start-up procedures with facility staff.

Begin training of facility staff on maintenance management system usage.

Submit final O&M Manual to the Agency.

Begin pre-start-up maintenance schedule.

Conduct "wet" and "dry" testing of all equipment.

Move into new laboratory.

<PACTION>>	START <PDATE>>	END <PDATE>>	PLAN OF OPERATION <PREFERENCE SECTION>>
Inventory new equipment and supplies furnished by the contractor.			
Test new laboratory apparatus.			
File treatment facility design, construction and operations records, manufacturers' manuals, and as-built drawings.			
Conduct operational start-up of facility.			

Start periodic safety reviews with facility staff.

Conduct the first annual plant safety review and modify the safety program, if necessary.

Initiate annual emergency procedures update and employee training program.

Complete first annual facility operation and maintenance report.

Update the O&M Manual based on first year of operating experience.

<BSection 371.162 Staffing and Training>>

This element of the PO must assure that supervisory, operational, maintenance, laboratory and administrative personnel are hired and trained in a timely manner. Reference must be made to the chapter on personnel in the O&M Manual.

a) List all of the positions and respective job titles of staff necessary to assure proper operation and maintenance of the facility. This list must correspond with the staffing requirements stated in the chapter on personnel in the O&M Manual.
b) List the names of all personnel currently employed and the job position each is to fill.
c) State sources of personnel which will be used to fill the remaining vacancies such as outside hiring, internal transfers, etc.
d) Provide a timetable for hiring personnel to fill the remaining vacancies. The Chief Operator should be hired by the time 50% of the facility construction has been completed.
e) Explain the problems in filling the position if the Chief Operator is not hired by the time 50% of the facility construction has been completed. The grantee must also include a plan for overcoming these problems and a revised timetable for hiring a qualified person for Chief Operator.
f) Discuss special operator training that may be necessary for new equipment or laboratory procedures. Personnel responsible for

training the facility staff must be identified by name and title.

<BSection 371.163 Records, Reports, and Laboratory Control>>

This element of the PO must identify specific actions and related implementation schedules for establishing an adequate laboratory, record keeping, and reporting system which meets NPDES requirements, process control and maintenance needs for the facility. Personnel responsible for completing each of the actions listed must he identified by name and title. Reference must be made to the chapter of the O&M Manual where examples of daily log sheets, Discharge Monitoring Report forms, annual reports, etc., are located.

<PACTION>>	START <PDATE>>	END <PDATE>>	RESPONSIBLE <PPERSONNEL>>
a) Determine the operations, laboratory, NPDES reporting and record keeping requirements for this facility.			
b) Review the laboratory analytical and reporting requirements with the operators and laboratory staff.			
c) Inventory the laboratory supplies and equipment.			
d) Acquire laboratory records, calculation sheets, and report forms.			
e) Conduct training in heavy metals sample collection and analysis with the laboratory staff.			
f) Have on file the treatment facility design, construction and operations			

records, manufacturers' manuals, and as-built drawings.

	START	END	RESPONSIBLE
<PACTION>>	<PDATE>>	<PDATE>>	<PPERSONNEL>>

g) Move into the laboratory.

h) Test new equipment to assure that it complies with the specifications and to demonstrate that the equipment is in working order.

i) Complete first annual facility operation and maintenance report.

<BSection 371.164 Process Control and Start-up Procedures>>

This element of the PO must identify actions and related implementation schedules necessary for facility start-up and process control. Personnel responsible for the completion of each action must be identified by name and title. Reference must be made to the chapters of the O&M Manual where the facility start-up and process control procedures are discussed.

	START	END	RESPONSIBLE
<PACTION>>	<PDATE>>	<PDATE>>	<PPERSONNEL>>

a) Prepare and submit a Start-up Services proposal to obtain funding for grant eligible portions of the training program.

b) Provide the beginning and completion dates for the Start-up Services and state the total time (person-days) to be spent on the services.

c) Outline a schedule for "wet"

and "dry" testing and calibration of equipment. Identify specific units, processes, and equipment to be tested and calibrated.

d) Begin the sampling program to define the facility influent characteristics.

e) Identify all unusual waste discharges.

	START	END	RESPONSIBLE
<PACTION>>	<PDATE>>	<PDATE>>	<PPERSONNEL>>

f) Develop an action plan for process control and "fine tuning."

g) Review process control and detailed start-up procedures with laboratory and operating staff.

h) Finalize the system and procedures for notification of unusual industrial waste discharges.

i) Test to determine capacity, motor running amps, temperature and vibration.

j) Conduct equipment start-up and process control drills.

<BSection 371.165 Safety>>

This element of the PO must identify necessary actions and include a schedule for implementing an employee safety program. Personnel responsible for the completion of each action must be identified by name and title. Reference must be made to the chapter on safety in the O&M Manual.

	START	END	RESPONSIBLE
<PACTION>>	<PDATE>>	<PDATE>>	<PPERSONNEL>>

a) Develop detailed guidance on an employee safety training program.

b) Begin the safety training program for all facility staff prior to start-up.

c) Conduct a facility safety tour with all staff to determine specific facility safety hazards.

d) Start periodic safety reviews with all staff.

	START	END	RESPONSIBLE
<PACTION>>	<PDATE>>	<PDATE>>	<PPERSONNEL>>

e) Conduct first annual facility safety review and modify the safety program, if necessary.

<BSection 371.166 Emergency Operating and Response Plan>>

This element of the PO must identify necessary actions and include a schedule for implementing an emergency operating and response plan. Personnel responsible for the completion of each action must be identified by name and title. Reference must be made to the chapter which outlines the emergency operating and response plan in the 0&M Manual.

	START	END	RESPONSIBLE
<PACTION>>	<PDATE>>	<PDATE>>	<PPERSONNEL>>

a) Develop details of the emergency procedures plan including personnel assignments.

b) Finalize cooperative assistance agreements with other agencies.

c) Identify and acquire the equipment and materials needed to implement the emergency operating and response plan.

d) Begin pre-start-up employee training on the emergency operating and response plan.

e) Initiate the annual procedures update and the employee training program.

<BSection 371.167 Maintenance Management>>

This element of PO must identify necessary actions and related implementation schedules for establishing an adequate maintenance management system. Personnel responsible for the completion of each action must be identified by name and title. Reference must be made to the chapter on maintenance in the O&M Manual.

	START	END	RESPONSIBLE
<PACTION>>	<PDATE>>	<PDATE>>	<PPERSONNEL>>
	START	END	RESPONSIBLE
<PACTION>>	<PDATE>>	<PDATE>>	<PPERSONNEL>>

a) Complete the inventories for spare parts and necessary tools.

b) Assemble the manufacturers' manuals and any other equipment literature.

c) Train the maintenance staff on equipment maintenance.

d) Acquire lubricants for equipment.

e) Begin the pre-start-up maintenance schedule.

f) Review the maintenance management program with the maintenance staff.

<BSection 371.168 Operation and Maintenance Manual>>

This element of the PO identifies necessary actions and related implementation schedules for the preparation and submission of the facility O&M Manual. Personnel responsible for completing each action must be identified by name and title. The submission date of the final O&M Manual must allow sufficient lead time for the manual to be reviewed 30 days prior to facility start-up.

	START	END	RESPONSIBLE
<PACTION>>	<PDATE>>	<PDATE>>	<PPERSONNEL>>

a) Prepare the draft of the O&M Manual.

b) Submit the draft O&M Manual to the Agency for review and approval.

c) Order and compile the O&M library references.

d) Obtain the Chief Operator's comments and input for inclusion in the final O&M manual.

e) Submit the completed O&M library to the treatment facility.

	START	END	RESPONSIBLE
<PACTION>>	<PDATE>>	<PDATE>>	<PPERSONNEL>>

f) Finalize the O&M Manual.

g) Submit final O&M Manual for. review to the Chief

Operator.

h) Submit final O&M Manual and the Chief Operator's review checklist to the Agency for review.

i) Update the O&M Manual and, if necessary, add materials to the O&M library based on the first year of operating experience.

<BSection 371.169 Operations Budget and Revenue Program>>

This element of the PO must identify necessary actions and related implementation schedules for establishing an adequate operations budget and revenue program. Personnel responsible for completing each action must be identified by name and title.

	START	END	RESPONSIBLE
<PACTION>>	<PDATE>>	<PDATE>>	<PPERSONNEL>>

a) Develop an operations budget and an adequate revenue program that provides for costs of salaries and wages, utilities, chemicals, supplies, staff training, and other costs of operation and maintenance.

b) Review and update the operations budget and revenue program.

<BSection 371.170 Other Actions>>

The PO must identify any other actions and related implementation schedules which are necessary to assure the timely and efficient start-up and continued operation of the facility. Personnel responsible for completing each action must be identified by name and title. Other actions may include, but are not limited to, the following:

	START	END	RESPONSIBLE

<PACTION>>	<PDATE>> START	<PDATE>> END	<PPERSONNEL>> RESPONSIBLE
<PACTION>>	<PDATE>>	<PDATE>>	<PPERSONNEL>>
a) Publish the new sewer use ordinance to accommodate the industrial discharges.			
b) Publish the industrial pretreatment ordinance.			
c) Hire an industrial inspector.			
d) Identify the industrial users.			
e) Characterize discharges as to flow, BOD, and suspended solids.			
f) Monitor certain industrial wastes for toxic discharges.			
g) Notify the industries of pretreatment requirements.			

SUBPART E: SUBMISSION OF PLANS OF OPERATION

<BSection 371.180 Submission of Plans of Operation>>

a) The preliminary PO must substantially address the requirements of 35 Ill. Adm. Code 371: Subparts C and D. References to chapters of the O&M Manual, as required in 35 Ill. Adm. Code 371.162 through 371.167, are not required in the preliminary PO.
   1) Actions which are necessary to ensure compliance with 35 Ill. Adm. Code 371: Subpart D must be clearly outlined with no significant omissions.
   2) Implementation schedules must reflect what can realistically be accomplished by the grantee, considering available resources and the facility's history.

b) The final PO must show that substantial progress has been made to implement the preliminary PO and that the grantee can be expected

to accomplish the remaining tasks on schedule. The final PO must include:

1) Updated information on "Staffing and Training" including all personnel hired since the submission of the preliminary PO.
2) Updated timetables for the hiring of personnel to fill vacancies.
3) Updated implementation schedules with finalized dates that reflect actions completed and actions yet to be taken to fulfill the requirements of 35 Ill. Adm. Code 371: Subpart D.

SUBPART F: INTRODUCTION TO OPERATION AND MAINTENANCE MANUALS

<BSection 371.200 Introduction>>

a) An O&M Manual provides long term, facility-specific guidance for all persons responsible for facility operation and maintenance.
b) An O&M Manual is required for all Step 3 state and federal construction grant projects.
c) O&M Manuals shall be submitted as follows:
   1) One draft copy of the O&M Manual must be submitted to the Agency and approved before 50% of the grant payment of a Step 3 grant can be made.
   2) Two final copies of the O&M Manual must be submitted to the Agency and approved before 90% of the grant payment of a Step 3 grant can be made.
   3) All O&M Manuals must be sent for review to:
      Illinois Environmental Protection Agency
      Division of Water Pollution Control
      Grant Administration Section
      2200 Churchill Road
      Springfield, Illinois 62706

SUBPART G: REQUIREMENTS FOR PREPARING OPERATION AND MAINTENANCE MANUALS FOR MUNICIPAL WASTEWATER TREATMENT FACILITIES

<BSection 371.220 General Requirements for Preparing Operation and Maintenance Manuals for Municipal Wastewater Treatment Facilities>>

a) A minimum of four copies of the O&M Manual must be prepared for

each Step 3 construction grant project. The following format shall be used.

1) The text of the O&M Manual must be placed in a bound volume. A notebook binder with a minimum of three rings is preferred.
2) Individual chapters must be clearly identified by a tab system. Chapters which discuss units or processes individually must use a tab to locate the discussion for each unit or process.
3) All drawings, diagrams, figures, worksheets, tables, illustrations, schematics, etc., must be legible, easily understandable, and must not exceed 11 inches by 17 inches in size.

b) O&M Manuals prepared for municipal wastewater treatment facilities must address each of the following items within 35 Ill. Adm. Code 371.221 through 371.233 which are applicable to the facility.

<BSection 371.221 Chapter I - Introduction>>

a) Discuss how to use and update the O&M Manual and the O&M library.
b) List and discuss operator responsibilities and the importance of items such as:
   1) Knowing proper operational procedures;
   2) Keeping accurate records;
   3) Managing operating funds properly;
   4) Keeping supervisors informed;
   5) Keeping informed of current operation and maintenance practices;
   6) Other areas of operational importance.
c) List and discuss managerial responsibilities and the importance of items such as:
   1) Maintaining efficient plant operation and maintenance;
   2) Maintaining adequate records;
   3) Establishing staff requirements, preparing job descriptions and assigning personnel;
   4) Providing good working conditions;
   5) Implementing an ongoing operator training program;
   6) Providing incentives for employees:
   7) Maintaining good public relations;
   8) Preparing budgets and reports;
   9) Planning for future facility needs;
   10) Developing standard operating procedures;
   11) Other areas of managerial or supervisory importance.
d) Briefly describe the facility and the individual units.

<BSection 371.222 Chapter II - Permits and Standards>>

a) Discuss in detail the NPDES permit and requirements and regulations to include the following:
   1) State the NPDES permit number, date of issuance, and expiration date. Outline procedures for NPDES permit renewal.
   2) Discuss effluent requirements and parameter limitations.
   3) Discuss possible penalties for permit violations.
   4) Discuss the importance of the conditions of the NPDES permit.
   5) Include a copy of the Discharge Monitoring Report with the permit conditions completed on the form. Include the instructions for completing Discharge Monitoring Reports.
   6) Summarize all reporting requirements contained in the NPDES permit such as:
      A) Notices of non-compliance
      B) Discharge Monitoring Reports
      C) Semi-annual analyses for heavy metals
      D) Progress reports
      E) Alternate power source report
      F) Industrial user reports
      G) Industrial pretreatment reports
      H) Industrial pretreatment requirement report
      I) Federal or state pretreatment requirements
      J) Industrial waste ordinance
      K) Deep well injection
      L) Any other special reports which may be required
b) Include legible copies of the current NPDES, construction, and operating permits in the appendices of the O&M Manual.
c) Include the telephone number for the Agency regional office.
d) Include the telephone number for the Agency Compliance Assurance Section: (217)782-9720.
e) Include the telephone number for the reporting of spills of oil and other hazardous materials to the Agency Emergency Action Center: (217)782-3637.

<BSection 371.223 Chapter III - Description, Operation and Control of Wastewater Treatment Facilities>>

a) Include a facility layout illustration that clearly shows the following:
   1) Location of all buildings and other structures;

2) Location of all equipment, units, and processes;
3) Location of all major bypasses and alternate flow paths.

b) Discuss the basis of design and the design criteria for this treatment facility. Discuss the anticipated raw wastewater characteristics with respect to:
1) Composition
2) Loadings
3) Industrial contributors
4) Flow variations

c) Trace the wastewater flow through the treatment facility and describe the operation of each unit in detail. The following information must be provided for each unit:
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, stop gates, slide gates, etc.
C) Unit 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
7) Operational problems
A) Unit problems
B) Mechanical problems
C) Troubleshooting guide
8) Routine maintenance considerations
A) Schedule the inspection, cleaning, lubrication, adjustment, calibration, painting, and any other routine maintenance activities recommended by the equipment manufacturer. 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.

d) Include a valve index with the following information.
   1) Number all valves, stop gates, slide gates, etc., as shown in the unit illustrations required in subparagraph (c)(3) above.
   2) Identify the size and type of all valves, stop gates, slide gates, etc.
   3) Indicate the normal operation setting, i.e. open, closed, etc., for each structure listed.

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

f) List the references in the O&M library that supplement discussions of:
   1) Operation
   2) Laboratory and other process control techniques
   3) Operational problems and troubleshooting
   4) Maintenance

<BSection 371.224 Chapter IV - Description, Operation and Control of Sludge Handling Facilities>>

a) Include a layout illustration of the sludge handling facilities which clearly shows the following:
   1) Location of all buildings and other structures;
   2) Location of all equipment, units, and processes;
   3) Location of all major bypasses and alternate flow paths.

b) Trace the sludge flow through the sludge handling facilities and describe the operation of each unit in detail. The following information must be provided for each unit:
   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, stop gates, slide gates, etc.
      C) Unit 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
7) Operational problems
   A) Unit problems
   B) Mechanical problems
   C) Troubleshooting guide
8) Routine maintenance considerations
   A) Schedule the inspection, cleaning, lubrication, adjustment, calibration, painting, and any other routine maintenance activities recommended by the equipment manufacturer. 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 materials, including paints and lubricants, needed to maintain each unit.

c) 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 structure listed.

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

e) Outline a comprehensive plan for sludge handling and disposal for this facility. The plan must consider seasonal variations, wet and dry weather conditions, weekend operation, and any other conditions that may affect sludge handling and disposal.

f) List the references in the O&M library that supplement discussions of:
   1) Operation
   2) Laboratory and other process control techniques
   3) Operational problems
   4) Maintenance

<BSection 371.225 Chapter V - Personnel>>

a) List all of the positions and respective job titles of staff necessary to assure the proper operation and maintenance of the facility such as:
   1) Supervisory/Managerial
   2) Administrative
   3) Operational
   4) Maintenance
b) Provide an organizational chart of personnel who will be responsible for the operation and maintenance of the facility.
c) List all qualifications necessary for each position. Use the following categories of qualifications:
   1) Certification
   2) Education
      A) Level
      B) Type
      C) Special training required
   3) Wastewater experience
      A) Time
      B) Experience operating specific units, processes, and types of wastewater treatment facilities
   4) Non-wastewater experience
      A) Time
      B) Type
   5) Specific skills required
   6) Other necessary qualifications
d) Discuss the operator certification requirements for this facility: Reference the material maintained in the O&M library for additional information concerning certification procedures.
e) Outline a staffing plan for this facility which includes the following information:
   1) State the number of shifts to be manned per day and the number of personnel per shift for normal, weekend, and holiday operations.
   2) Discuss staffing during personnel absences due to sickness, vacation, off-site training, etc.
   3) Discuss any anticipated seasonal staffing variations.
f) List and discuss the sources of training which are available to the operators.
g) State who will be responsible for timekeeping and personnel record keeping. Discuss the types of personnel records to be kept and

the importance of these records. The discussion must include but is not limited to:

1) Employment application
2) Payroll information
3) Vacation and sick day records
4) Training received by an individual
5) Personnel evaluation records
6) Promotion or demotion records
7) Other personnel information or records

<BSection 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.

<BSection 371.227 Chapter VII - Records>>

a) For thorough discussions of personnel, laboratory, and maintenance records, cross reference the discussions to their respective chapters.
b) Discuss the Process Operations/Daily Operating Log. Provide a sample format with instructions for completing the log.
c) Discuss the Annual Report, including a sample form with instructions for completing the report.
d) Discuss the Operating Costs Record. Discuss all of the categories of operating costs for this facility.
e) Discuss records which should be kept when emergency conditions arise such as:
1) Entry in Daily Operating Log;
2) Effluent non-compliance report;
3) Records of accelerated sampling programs, receiving stream sampling, and other requirements.

<BSection 371.228 Chapter VIII - Maintenance>>

a) Discuss the purpose and importance of the maintenance program.
b) Outline an equipment maintenance record system for this facility which must include but is not limited to:
1) An equipment numbering system;

2) Equipment maintenance record forms and the equipment data to be kept on these forms;
3) Instructions for completing and filing the equipment maintenance record forms;
4) Procedures to follow for retrieving information stored in the equipment maintenance record system.

c) Provide daily, weekly, monthly, quarterly, semi-annual, and annual summaries of the routine maintenance activities for each unit of the facility. These summaries may be prepared by reviewing and reorganizing the information in 35 Ill. Adm. Code 371.223(c)(8) and 371.224(b)(8) of the preparation requirements. Identify materials, including paints and lubricants needed to maintain each unit.

d) Outline a work order system and describe a work order log. Include a sample work order form.

e) Outline a stockroom and inventory system. Provide a list of spare parts to be maintained for each item of equipment at the facility. Discuss procedures for ordering parts which meet the municipality's purchasing ordinances.

f) Discuss costs and budgets for maintenance operations.

g) Discuss housekeeping activities.

h) Discuss piping color coding for the facility.

i) Discuss the use of special tools and equipment and the maintenance skills required to use the tools.

j) Discuss tool room procedures and the use of tool boards.

k) Discuss applicable warranties for all guaranteed equipment.

l) Discuss contract maintenance jobs.

<BSection 371.229 Chapter IX - Emergency Operation and Response Program>>

a) Analyze facility vulnerability to emergency situations including:
1) Equipment failures
2) Natural disasters
3) Strikes
4) Civil disorders

b) Discuss methods to reduce facility vulnerability to such situations.

c) List any mutual aid agreements with other organizations.

d) Include a complete emergency equipment inventory and discuss updating it on a routine basis.

e) Provide for preserving facility records, drawings, etc.

f) Provide a complete industrial waste inventory and monitoring system and discuss updating it on a routine basis. The system

must include for each industry:

1) The name and location of the discharging industry;
2) A description of the industrial waste;
3) The names and telephone numbers of the industry's key personnel for emergency contact.

g) Provide written coordinating instructions for local police and fire departments.
h) Outline the responsibilities of facility personnel for various emergency situations.
i) Designate an emergency response center.
j) Discuss sources of auxiliary personnel.
k) List emergency telephone numbers for hospital, fire station, ambulance, chlorine supplier, etc., on a form.
l) Discuss plans for keeping the emergency operating and response plan current.

<BSection 371.230 Chapter X - Safety>>

a) Discuss management's safety responsibilities including legal ramifications upon failure to provide a safe work environment.
b) Discuss any unusual safety considerations including any hazards which are due to unique conditions at the project.
c) Discuss the hazards involved with sewer maintenance including the following:
   1) The use of gas testing equipment
   2) The use of non-sparking tools
   3) Work site protection and the use of barricades
   4) The use of a safety line and safety harness
   5) The use of ventilation equipment
   6) The use of oxygen masks or similar gear
   7) The use of communication equipment for prompt contact with emergency medical services.
   8) Other necessary precautions
d) Discuss electrical safety including:
   1) Grounding of electric tools and ground fault interruption
   2) Lock-out procedures on electrical equipment
   3) Using rubber floor mats
   4) Testing of circuits
   5) Designating personnel to perform electrical repairs
   6) Other electrical safety precautions
e) Discuss the mechanical equipment hazards and the use of equipment guards.
f) Discuss explosion and fire hazards including:

1) Storage of flammable materials
2) Type and location of fire extinguishers
3) Hazards of digester gases
4) Use of flammable vapor detectors
5) Other explosion or fire hazards

g) Discuss bacterial infections and health hazards.
1) Discuss immunization programs.
2) Outline personal hygiene considerations.

h) Discuss chlorine hazards and the handling of chlorine cylinders.

i) Discuss oxygen deficiency and the hazards of noxious gases.

j) List common gases encountered near wastewater treatment systems and discuss properties of each.

k) Discuss laboratory hazards and prevention techniques.

l) List the safety equipment to be kept at the facility.

m) Discuss the importance of conducting routine training sessions on the use of the safety equipment.

n) Discuss the handling of process chemicals used at this facility.

o) List safety references maintained in the O&M library.

<BSection 371.231 Chapter XI - Utilities>>

a) Give the name, address and telephone number of the electrical power company. If possible, identify contact persons and telephone numbers for routine and emergency contact.

b) For additional information on the electrical system, cross reference this material to that in 35 Ill. Adm. Code 371.232.

c) Give the name and address of the telephone company.

d) Give the name, address and telephone number of the natural gas supplier. If possible, identify contact persons and telephone numbers for routine and emergency contact.

e) Give the exact location of the natural gas shut-off valve and discuss its operation.

f) Discuss the use of natural gas as a supplement to digester gas, if applicable and not previously discussed in Chapter IV (35 Ill. Adm. Code 371.224).

g) Identify the owner of the water company which provides water to this facility. If possible, identify contact persons and telephone numbers for routine and emergency contact.

h) Give the exact location of the main water shut-off valve and discuss its operation.

i) Give the name, address and telephone number of the fuel oil supplier. If possible, identify contact persons and telephone numbers for routine and emergency contact. State the size of the

storage tanks and provide a Spill Prevention Containment and Control Plan (SPCC) if the storage tanks are above grade.

<BSection 371.232 Chapter XII - Electrical System>>

a) Discuss the characteristics of the primary electrical distribution line.
b) Discuss the system's protective devices such as:
   1) Fuses
   2) Circuit breakers
   3) Ground fault interruption
c) Describe all motor control centers and panels, including the following information:
   1) For each motor control center and panel, list the types of controls present and process equipment involved.
   2) Include schematic diagrams and simplified drawings for each motor control center and panel.
d) Discuss the operation and maintenance of the electrical equipment.
e) Discuss the alternate power source(s) in detail and how to implement the system(s) during loss of the primary power source.

<BSection 371.233 Appendices>>

a) Schematics
b) Valve Indexes
c) Copies of all forms needed to operate the facility efficiently
d) Process chemicals used at the facility and the names and addresses of the suppliers
e) Design criteria for the facility in tabular form
f) Equipment supplier's information and a list of the sources for service and parts
g) The municipality's sewer use ordinance
h) At a minimum, the references specified in 35 Ill. Adm. Code 371.240(e) shall be acquired or included in the O&M library. A complete list of the O&M library references must be included in the appendices to the O&M Manual. Indicate which references should be periodically replaced or updated.

SUBPART H: OTHER ITEMS AVAILABLE AT MUNICIPAL WASTEWATER TREATMENT FACILITIES

<BSection 371.240 Other Items Available At Municipal Wastewater Treatment Facilities>>

In addition to the O&M Manual, the following items must be available at the facility:

a) Warranties for all equipment
b) Construction photos, if applicable
c) Approved shop drawings
d) As-built drawings
e) A complete O&M library which must include, but is not limited to, the following references:
   1) American Society for Testing and Materials. Annual Book of Standards "Part 31: Water," latest edition.
      or
      APHA, AWWA, and WPCF. Standard Methods for the Examination of Water and Wastewater latest edition.
      or
      USEPA. Methods for Chemical Analysis of Water and Waste, latest edition.
   2) Current Agency rules and regulations for operator certification.
   3) Illinois Pollution Control Board. 35 Ill. Adm. Code Subtitle C, Chapter I (previously uncodified as Chapter 3: Water Pollution), IEPA, Springfield, Illinois.
   4) Manufacturers' manuals for all equipment including motor control centers and electrical panels.
   5) The Chlorine Institute, Inc. Chlorine Manual, latest edition, New York.
      USEPA. Handbook for Analytical Quality Control in Water and Wasterwater Laboratories, latest edition.
   7) Water Pollution Control Federation. Safety in Wastewater Works, Manual of Practice No.1, Washington,D.C.
   8) Water Pollution Control Federation. Operation of Wastewater Treatment Plants, Manual of Practice No.11, Washington, D.C.
   9) Water Pollution Control Federation. Paints and Protective Coatings for Wastewater Treatment Facilities, Manual of Practice No.17, Washington,D.C.

SUBPART I: REQUIREMENTS FOR PREPARING OPERATION AND MAINTENANCE MANUALS FOR MUNICIPAL WASTEWATER PUMPING STATIONS AND COLLECTION SYSTEMS

<BSection 371.260 General Requirements for Preparing Operation and Maintenance Manuals for Municipal Wastewater Pumping Stations and

Collection Systems>>

a) A minimum of four copies of the O&M Manual must be prepared for each Step 3 construction grant project. The following format shall be used:
   1) The text of the O&M Manual must be placed in a bound volume. A notebook binder with a minimum of three rings is preferred.
   2) Individual chapters must be clearly identified by a tab system. Chapters which discuss units or processes individually must use a tab to locate the discussion for each unit or process.
   3) All drawings, diagrams, figures, worksheets, tables, illustrations, schematics, etc., must be legible, easily understandable, and must not exceed 11 inches by 17 inches in size.

b) O&M Manuals prepared for municipal wastewater pumping stations and collection systems must address each of the following items within 35 Ill. Adm. Code 371.261 through 371.271 which are applicable to the project.

<BSection 371.261 Chapter I - Introduction>>

a) Discuss how to use and update the O&M Manual and the O&M library.
b) List and discuss operator responsibilities and the importance of items such as:
   1) Knowing proper operational procedures;
   2) Keeping accurate records;
   3) Managing operating funds properly;
   4) Keeping supervisors informed;
   5) Keeping informed of current operation and maintenance practices;
   6) Other areas of operational importance.
c) List and discuss managerial responsibilities and the importance of items such as:
   1) Maintaining efficient facility operation and maintenance;
   2) Maintaining adequate records;
   3) Establishing staff requirements, preparing job descriptions and assigning personnel;
   4) Providing good working conditions;
   5) Implementing an ongoing operator training program;
   6) Providing incentives for employees;
   7) Maintaining good public relations;
   8) Preparing budgets and reports;

9) Planning for future facility needs;
10) Developing standard operating procedures;
11) Other areas of managerial or supervisory importance.

d) Briefly describe the pumping station type and capacity.
e) Describe the chlorination facilities.
f) Describe the collection system type and size.
g) Discuss the collection system's appurtenances and special structures such as:
1) Manholes
2) Check valves and relief overflows
3) Siphons
4) Flap gates
5) Metering stations
6) Air relief valves
7) Any other appurtenances or special structures

<BSection 371.262 Chapter II - Permits>>

a) Include legible copies of the construction permit and operating permit, or of the joint construction and operating permit.
b) State the design average flow, design maximum flow, and the design population served.
c) Include the telephone number of the Agency regional office.
d) Include the telephone number of the Agency Compliance Assurance Section: (217)782-9720.
e) Include the telephone number for the reporting of spills of oil and other hazardous materials to the Agency Emergency Action Center: (217)782-3637.

<BSection 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

<BSection 371.264 Chapter IV - Personnel>>

a) List all of the positions and respective job titles of staff necessary to assure the proper operation and maintenance of the pumping stations and collection system, such as:
1) Supervisory/Managerial
2) Administrative
3) Operational
4) Maintenance

b) Provide an organizational chart of personnel who will be responsible for the operation and maintenance of the pumping stations and collection system.

c) List all qualifications necessary for each position. Use the following categories of qualifications: .
1) Education
A) Level
B) Type
C) Special training required
2) Pumping station and collection system experience
A) Time
B) Type
3) Non-related experience
A) Time
B) Type
4) Specific skills required
5) Other necessary qualifications

d) Outline a staffing plan for this pumping station and collection system which includes the following information:
1) State the number of shifts to be manned per day and the number of personnel per shift for normal, weekend, and

holiday operations.
2) Discuss staffing during personnel absences due to sickness, vacation, off-site training, etc.
3) Discuss any anticipated seasonal staffing variations.

e) List and discuss the sources of training which are available to the operators.
f) State who will be responsible for timekeeping and personnel record keeping. Discuss the types of personnel records to be kept and the importance of these records. The discussion must include but is not limited to:
1) Employment applications
2) Payroll information
3) Vacation and sick day records
4) Training received by an individual
5) Personnel evaluation records
6) Promotion or demotion records
7) Other personnel information or records

<BSection 371.265 Chapter V - Records>>

a) For thorough discussions of personnel and maintenance records, cross reference the discussions to their respective chapters.
b) Discuss the Process Operations/Daily Operating Log. Provide a sample format with instructions for completing the log.
c) Discuss the Annual Report, including a sample form with instructions for completing the report.
d) Discuss the Operating Costs Record. Discuss all of the categories of operating costs for this facility.
e) Discuss records which should be kept when emergency conditions arise such as:
1) Entry in Daily Operating Log
2) Other emergency records

<BSection 371.266 Chapter VI - Maintenance>>

a) Discuss the purpose and importance of the maintenance program.
b) Outline an equipment maintenance record system for the pumping stations and collection system which must include but is not limited to:
1) An equipment numbering system;
2) A manhole numbering system;
3) Equipment maintenance record forms and the equipment data to be kept on these forms;

4) Instructions for completing and filing the equipment maintenance record forms;
5) Procedures to follow for retrieving information stored in the equipment maintenance record system.

c) Provide daily, weekly, monthly, quarterly, semi-annual, and annual summaries of the routine maintenance activities for each unit of the pumping station and collection system. These summaries may be prepared by reviewing and reorganizing the information in 35 Ill. Adm. Code 371.263(b)(8) of the preparation requirements. Identify materials, including paints and lubricants, needed to maintain each unit.

d) Outline a work order system and describe a work order log. Include a sample work order form.

e) Outline a stockroom and inventory system. Provide a list of spare parts to be maintained for each item of equipment. Discuss procedures for ordering parts which meet the municipality's purchasing ordinances.

f) Discuss costs and budgets for maintenance operations.

g) Discuss housekeeping activities.

h) Discuss piping color coding.

i) Discuss the use of special tools and equipment and the maintenance skills required to use the tools.

j) Discuss tool room procedures and the use of tool boards.

k) Discuss applicable warranties for all guaranteed equipment.

l) Discuss contract maintenance jobs.

<BSection 371.267 Chapter VII - Emergency Operating and Response Program>>

a) Analyze the pumping station's and collection system's vulnerability to emergency situations including:
1) Equipment failures
2) Natural disasters
3) Strikes
4) Civil disorders

b) Discuss methods to reduce vulnerability to such situations.

c) List any mutual aid agreements with other organizations.

d) Include a complete emergency equipment inventory and discuss updating it on a routine basis.

e) Provide for preserving all records, drawings, etc.

f) Provide a complete industrial waste inventory and monitoring system and discuss updating it on a routine basis. The system must include for each industry:
1) The name and location of the discharging industry;

2) A description of the industrial waste;
3) The names and telephone numbers of the industry's key personnel for emergency contact.

g) Provide written coordinating instructions for local police and fire departments.
h) Outline the responsibilities of personnel for various emergency situations.
i) Designate an emergency response center.
j) Discuss sources of auxiliary personnel.
k) List emergency telephone numbers for hospital, fire department, police, ambulance, etc, on a form.
l) Discuss plans for keeping the emergency operating and response plan current.

<BSection 371.268 Chapter VIII - Safety>>

a) Discuss management's safety responsibilities including legal ramifications upon failure to provide a safe work environment.
b) Discuss any unusual safety considerations including any hazards which are due to unique conditions at the project.
c) Discuss the hazards involved with sewer maintenance including the following:
1) The use of gas testing equipment
2) The use of non-sparking tools
3) Work site protection and the use of barricades
4) The use of a safety line and safety harness
5) The use of ventilation equipment
6) The use of oxygen masks or similar gear
7) The use of communication equipment for prompt contact with emergency medical services
8) Other necessary precautions
d) Discuss electrical safety including:
1) Grounding of electric tools and ground fault interruption
2) Lock-out procedures on electrical equipment
3) Using rubber floor mats
4) Testing of circuits
5) Designating personnel to perform electrical repairs
6) Other electrical safety precautions
e) Discuss the mechanical equipment hazards and the use of equipment guards.
f) Discuss explosion and fire hazards including:
1) Storage of flammable materials
2) Type and location of fire extinguishers

3) Hazards of explosive gases
4) Use of flammable vapor detectors
5) Other explosion or fire hazards

g) Discuss bacterial infections and health hazards.
1) Discuss immunization programs.
2) Outline personal hygiene considerations.

h) Discuss chlorine hazards and the handling of chlorine cylinders.

i) Discuss oxygen deficiency and the hazards of noxious gases.

j) List common gases encountered near wastewater pumping stations and collection systems and discuss properties of each.

k) List the safety equipment to be kept at the facility.

l) Discuss the importance of conducting routine training sessions on the use of the safety equipment.

m) List safety references maintained in the O&M library.

<BSection 371.269 Chapter IX - Utilities>>

a) Give the name, address and telephone number of the electrical power company. If possible, identify contact persons and telephone numbers for routine and emergency contact.

b) For additional information on the electrical system, cross reference this material to that in 35 Ill. Adm.Code 371.270.

c) Give the name and address of the telephone company.

d) Give the name, address and telephone number of the natural gas supplier. If possible, identify contact persons and telephone numbers for routine and emergency contact.

e) Give the exact location of the natural gas shut-off valve and discuss its operation.

f) Identify the owner of the water company which provides water to this facility. If possible, identify contact persons and telephone numbers for routine and emergency contact.

g) Give the exact location of the main water shut-off valve and discuss its operation.

h) Give the name, address and telephone number of the fuel oil supplier. If possible, identify contact persons and telephone numbers for routine and emergency contact. State the size of the storage tanks and provide a Spill Prevention Containment and Control Plan (SPCC) if the storage tanks are above grade.

<BSection 371.270 Chapter X - Electrical System>>

a) Discuss the characteristics of the primary electrical distribution line.

b) Discuss the system's protective devices such as:
   1) Fuses
   2) Circuit breakers
   3) Ground fault interruption
c) Describe all motor control centers and panels, including the following information:
   1) For each motor control center and panel, list the types of controls present and process equipment involved.
   2) Include schematic diagrams and simplified drawings for each motor control center and panel.
d) Discuss the operation and maintenance of the electrical equipment.
e) Discuss the alternate power source(s) in detail and how to implement the system(s) during loss of the primary power source.

<BSection 371.271 Appendices>>

a) Schematics
b) Valve Indexes
c) Copies of all forms needed to operate the pumping stations and collection system efficiently
d) Chemicals used in the system and the names and addresses of the suppliers
e) Design criteria for the project in tabular form
f) Equipment supplier's information and a list of the sources for service and parts
g) The municipality's sewer use ordinance
h) At a minimum, the references specified in 35 Ill. Adm. Code 371.280(e) shall be acquired or included in the O&M library. A complete list of the O&M library references must be included in the appendices to the O&M Manual. Indicate which references should be periodically replaced or updated.

SUBPART J: OTHER ITEMS AVAILABLE AT MUNICIPAL WASTEWATER PUMPING STATIONS AND COLLECTION SYSTEMS

<BSection 371.280 Other Items Available at Municipal Wastewater Pumping Stations and Collection Systems>>

In addition to the O&M Manual, the following items must be available at the facility:

a) Warranties for all equipment
b) Construction photos, if applicable

c) Approved shop drawings
d) As-built drawings
e) A complete O&M library which must include, but is not limited to, the following references:
1) Illinois Pollution Control Board. 35 Ill. Adm. Code Subtitle C, Chapter 1 (previously uncodified as Chapter 3: Water Pollution), IEPA, Springfield, Illinois.
2) Manufacturers' manuals for all equipment including motor control centers and electrical panels.
3) Water Pollution Control Federation. Safety in Wastewater Works, Manual of Practice No.1, Washington, D.C.
4) Water Pollution Control Federation, Sewer Maintenance, Manual of Practice No.7, Washington,D.C.
5) Water Pollution Control Federation. Paints and Protective Coating for Wastewater Treatment Facilities; Manual of Practice No. 17, Washington, D.C.

SUBPART K: SUBMISSION OF OPERATION AND MAINTENANCE MANUALS

<BSection 371.300 Submission of Operation and Maintenance Manuals>>

a) A draft O&M Manual must be submitted to the Agency for review. The draft should be as complete as possible considering available information. Outlines of O&M Manuals will not be approved as draft manuals.
b) Draft manuals must substantially address:
1) The requirements of 35 Ill. Adm. Code 371.220 through 371.240 for O&M Manuals prepared for municipal wastewater treatment facilities;
2) The requirements of 35 Ill. Adm. Code 371.260 through 371.280 for O&M Manuals prepared for municipal wastewater pumping stations and collection systems.
c) When the final O&M Manual is submitted for review, it must be accompanied by the review checklist which is provided by the Agency. This checklist shall be completed and signed by the Chief Operator or a staff person of similar position and training.
d) In a cover letter submitted with the final O&M Manual, the grantee must list the items from the checklist considered not applicable to the project.
e) Final O&M Manuals must substantially address, with no significant omissions:
1) The requirements of 35 Ill. Adm. Code 371.220 through 371.240

for O&M Manuals prepared for municipal wastewater treatment facilities;

2) The requirements of 35 Ill. Adm. Code 371.260 through 371.280 for O&M Manuals prepared for municipal wastewater pumping stations and collection systems.

f) If the Agency fails to approve the final O&M Manual, both copies shall be returned to the grantee for revisions and corrections.

g) If the Agency approves the final O&M Manual, one copy will be returned to the grantee and one copy will be retained by the Agency.

<BSection 371.APPENDIX A Old Section Numbers Referenced>>

The following table is provided to aid in referencing old Agency section numbers to new section numbers pursuant to codification.

Old Section Numbers	35 Ill. Adm. Code Part 371
101	371.101
102	371.102
103	371.103
201	371.120
202	371.140
202(a)	371.160
202(b)	371.161
202(c)	371.162
202(d)	371.163
202(e)	371.164
202(f)	371.165
202(g)	371.166
202(h)	371.167
Old Section Numbers	35 Ill. Adm. Code Part 371
202(i)	371.168
202(j)	371.169
202(k)	371.170
203	371.180
301	371.200
302(a)(b)	371.220
Chapter I	371.221
Chapter II	371.222
Chapter III	371.223
Chapter IV	371.224
Chapter V	371.225

Chapter VI	371.226
Chapter VII	371.227
Chapter VIII	371.228
Chapter IX	371.229
Chapter X	371.230
Chapter XI	371.231
Chapter XII	371.232
Appendices	371.233
302(c)	371.240
303(a)(b)	371.260
Chapter I	371.261
Chapter II	371.262
Chapter III	371.263
Chapter IV	371.264
Chapter V	371.265
Chapter VI	371.266
Chapter VII	371.267
Chapter VIII	371.268
Chapter IX	371.269
Chapter X	371.270
Appendices	371.271
303(c)	371.280
304	371.300