

INSTRUCTIONS

For Completion of

REPORT ON OPERATION AND MAINTENANCE OF WASTEWATER TREATMENT PLANTS



U.S. ENVIRONMENTAL PROTECTION AGENCY
Office of Water Program Operations
Washington, D.C. 20460

MARCH 1974

INSTRUCTIONS

For Completion of

REPORT ON OPERATION AND MAINTENANCE
OF WASTEWATER TREATMENT PLANT

(EPA Form 7500-5)



U.S. ENVIRONMENTAL PROTECTION AGENCY
OFFICE OF WATER PROGRAM OPERATIONS
WASHINGTON, D.C. 20460

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INTRODUCTION

The instructions in this booklet are presented to assist in the completion of EPA Form 7500-5, "Report on Operation and Maintenance of Wastewater Treatment Plant." They reflect recent revisions to the form that have been made to allow for the inclusion of design and NPDES permit data and to improve the useability of information on plant operations and deficiencies.

It should be recognized that no one form can satisfy the requirements for all inspection needs. Form 7500-5 should be viewed as a basic form covering most of the essentials required in any inspection and it should be supplemented, as necessary, by written reports to reflect the particular circumstances of any given inspection. The form can serve as a procedural guide so that a plant inspector can document his inspection of a plant, covering all sections in a logical sequence.

It is essential that the collection of plant operational data and information on operating deficiencies be improved to provide a sound planning basis for future operation and maintenance programs and activities. Therefore, inspectors are urged to make every effort to respond accurately to all questions on the form, utilizing all available sources of information.

Any comments or questions regarding the form or these instructions should be directed to:

U.S. Environmental Protection Agency
Office of Water Program Operations (AW 446)
Municipal Operations Branch
Washington, D.C. 20460

INSTRUCTIONS FOR COMPLETION OF EPA FORM 7500-5 (4-72)

"REPORT ON OPERATION AND MAINTENANCE OF WASTEWATER TREATMENT PLANT"

A. GENERAL INFORMATION

1. PLANT

- (a) NAME - Use the name considered "official" which would ordinarily be used on reports, etc.
- (b) OWNER - The responsible public entity, such as community, city, metropolitan agency, sanitary district, township or county, etc.
- (c) LOCATION - This should ordinarily be the mailing address of the facility, including the city, township or county, and state in which the facility is located. Other specific instructions to locate the plant would be placed in a portion of item A.9.

2. TYPE OF PLANT

- Primary
- Trickling Filter
 - Standard or High-Rate
(Standard - less than 150 gpd/ft² and less than 25 lb. BOD/10³ ft³ /day; trickling filters operating at loadings in excess of one or both of these figures are considered high-rate.)
 - Single-stage or Two-stage
- Activated Sludge
 - Conventional
(approximately 4-8 hours of aeration with approximately 25% sludge return)
 - Tapered Aeration
 - Step Aeration
 - Complete Mix
(Step aeration and sludge return)
 - Contact Stabilization
(Provides aeration period of less than 2 hours in contact tank)
 - Extended Aeration
(Greater than 24 hours)

- Physical-Chemical
(Specify type)
- Sand Filter
- Waste Stabilization Pond
- Oxidation Ditch
(Sludge digestion or auto-oxidation)
- Aerated Lagoon
(Surface or submerged aeration)
- Pure Oxygen (80%+)

3. PROJECT NO.

List the EPA Grant Project number, if applicable, for this plant.

4. AVERAGE DESIGN FLOW (mgd)

Enter the flow in million gallons per day (mgd) for which the facility was designed.

5. DESIGN POPULATION EQUIVALENT

Enter the daily BOD process loads contributed by the service area expressed in population equivalents (0.17 lbs. per capita per day) for which the plant was designed.

6. COLLECTION SYSTEM

Check "combined" when it is known that the service area contains combined sewers that were designed to transport both surface water runoff and sanitary wastewaters.

Check "separate" when all of the service area contributing to the treatment plant is served by sewers designed to carry the sanitary and other wastewaters only. For separate sewers, it is assumed that allowance for groundwater infiltration has been made in the design. Therefore a sewer can be considered separate even though it may be affected by groundwater infiltration.

Check "both" when the collection system contains combined and separate sewers.

7. DATE PRESENT PLANT BEGAN OPERATING

Enter the date the present plant was placed in full operation (date of initial start-up) and/or the date of expansion, significant modification or conversion to another type of process.

8. STATE PERMIT NO.

This number is the 9-character NPDES permit identifier given by the Federal or state agency to identify the operating permit for the facility.

9. FLOW DIAGRAM OR WRITTEN DESCRIPTION OF PLANT UNITS IN FLOW SEQUENCE

Describe or provide a simple flow diagram giving sequence of processing units. Include bypass and return flow lines. Any unusual or unique design features should be identified.

Where possible, the following standard nomenclature should be used:

Pretreatment

Bar Screens
Mechanical Screens
Comminutor or Barminutor
Grit Removal
Grinder
Grease Removal
Aerated Grit Removal

Primary Treatment

Primary Settling (plain)
Primary Settling
(pre-aeration)
Imhoff Tank

Secondary Treatment

Secondary Settling
Stabilization Pond
Aerated Lagoon
Standard-Rate Trickling
Filter(s)

Advanced Treatment

Physical Chemical Treatment
Nitrification
Denitrification
Activated Carbon Filter
Intermittent Sand Filter

Disinfection

Solids Handling

Anaerobic Digestion
(one- or two-stage)
Aerobic Digestion
Sludge Drying Beds
Centrifuge
Vacuum Filter
Thickening
Incineration
Landfill

(Secondary Treatment Con't)

High-Rate Trickling
Filter(s)
Roughing Trickling
Filter(s)
Plastic Media Trick-
ling Filter(s)
Conventional Acti-
vated Sludge
High-Rate Activated
Sludge
Tapered Aeration A.S.
Extended Aeration A.S.
Step Aeration - A.S.
Contact Stabilization A.S.

Effluent Disposal

Discharge to receiving
surface water
Deep Well
Shallow Well
Re-use
Spray Irrigation
Flood Irrigation

10. RECEIVING WATERS

Identify the minor and major receiving streams,
lakes, etc.

11. PERTINENT STREAM STANDARDS AND/OR USES OF THE RECEIVING
WATERS

Minimum objectives such as D.O. or other applicable
water quality standards established.

Contact recreation such as swimming, water skiing,
etc.

Water supplies such as municipal, industrial,
irrigation, etc.

Fishing, shellfish-taking, etc.

Boating, navigation.

Verify by relating controlling state and/or Federal
requirement.

12. EFFLUENT STANDARDS AND/OR REQUIREMENTS FOR STATE
OPERATING PERMIT

Enter a brief list of the prime controlling effluent quality objectives for the treatment facility.

If an NPDES permit to operate has been issued to the facility by the Federal or state agency, give the pertinent permit conditions including effluent limitations, pretreatment requirements (if applicable) and any significant special or general conditions.

B. CURRENT PLANT LOADING

1. ANNUAL AVERAGE DAILY FLOW RATE (mgd)

Calculate and enter the average of monthly average flow rates for one year.

2. PEAK FLOW RATE (mgd)

The dry weather peak flow rate (mgd) is the maximum daily flow rate in the month having the minimum average flow for the reporting period.

The wet weather peak flow rate (mgd) is the maximum daily flow in the month having the maximum average flow for the reporting period.

NOTE: It is possible that dry weather peak flow rate will be greater than the wet weather peak flow rate because of artificial recharge, irrigation, etc.

3. POPULATION SERVED

This should be the most recent estimate of the actual population being served by this waste treatment plant. This is not an area population figure.

4. ANNUAL AVERAGE FIVE-DAY BIOCHEMICAL OXYGEN DEMAND (BOD₅) OF THE RAW SEWAGE AS mg/l

This is generally determined from sampling at the plant influent. Care should be exercised in assuring that the samples do not contain any return from the treatment systems in the plant.

5. ANNUAL AVERAGE SUSPENDED SOLIDS OF RAW SEWAGE IN mg/l

Sample should generally be taken at same location as item 4, above.

6. PRINCIPAL TYPES OF INDUSTRIAL WASTE DISCHARGED TO MUNICIPAL SYSTEMS

Possible sources of industrial wastes discharged to municipal systems are as follows:

Pulp and paper mills	Paperboard, builder's
Meat product and rendering processing	paper and board mills
Dairy product processing	Grain mills
Canned and preserved fruits and vegetables processing	Sugar processing
Cement manufacturing	Textile mills
Electroplating	Feedlots
Inorganic chemicals manufacturing	Organic chemicals manufacturing
Soap and detergent manufacturing	Plastic and synthetic materials manufacturing
Fertilizer manufacturing	Petroleum refining
Iron and steel manufacturing	Nonferrous metals manufacturing
Cotton ginning	Phosphate manufacturing
Steam electric powerplant	Ferroalloy manufacturing
Leather tanning and finishing	Glass and asbestos manufacturing
Rubber processing	Timber products processing

7. POPULATION EQUIVALENT (BOD) OF INDUSTRIAL WASTES

Subtract known population as BOD equivalents from total raw BOD expressed as population equivalents (Use 0.17 lbs. per capita per day). The procedure for calculation follows:

- (a) Multiply item B.4 (BOD₅ in mg/l) by item B.1 (average daily flow in mgd)
- (b) Multiply (a) above by 8.34
- (c) Divide (b) above by 0.17
- (d) Subtract item B.3 (population served) from (c)
- (e) Enter (d) in Block B.7.

8. POPULATION EQUIVALENT (SS) OF INDUSTRIAL WASTES

Use procedure in 7 above with SS (Item 5) and enter result in block B.8.

9. VOLUME OF INDUSTRIAL WASTE (mgd)

This is the industrial fraction, if any, of the total raw flow to the waste treatment plant.

10. INFILTRATION PROBLEMS

Indicate the extent of the problem (major, minor), the cause (structural and joint failures, etc.), investigations of the problem (smoke test, etc.), type of corrective action, if any, (pipe sealing, replacement, etc.).

Flows from sewers designed for both storm and sanitary flows should not be considered infiltration problems.

Note the following definitions:

Infiltration - The discharge of groundwater into sewers, through defects in pipelines, joints, manholes, or other sewer structures.

Inflow - The discharge of any kind of water into sewer lines from such sources as roof leaders, cellar and yard-area drains, foundation drains, commercial and industrial so-called "clean water" discharges, drains from springs and swampy areas, etc. It does not include "infiltration" and is

distinguished from such wastewater discharges, as previously defined.

Infiltration/Inflow - A combination of infiltration and inflow wastewater volumes in sewer lines that permits no distinction between the two basic sources and has the same effect of usurping the capacities of sewer system and other sewer system facilities.

C. PLANT PERFORMANCE

1. LABORATORY ANALYSIS

(a) REPORTING PERIOD

Data reported shall be on a complete calendar-month basis; i.e., the reporting period shall begin with the first complete calendar month not previously reported and end with the last complete calendar month prior to the current inspection. (e.g., the previous report ended with 8/73 and the date of the current inspection is 4/30/74; therefore, the reporting period is 9/73 to 3/74, inclusive.)

(b)&(c) REPORTING PROCEDURE

The numbers reported for "Actual Plant Performance Data" represent the average for the reporting period; inasmuch as the reporting period is on a complete month basis, "the average for the reporting period" may be obtained by summing the average value for each month in the reporting period and dividing average value by the total number of months reported.

(d) PLANT DESIGN DATA

Enter the average monthly values which the plant was designed to achieve. Especially important are the values for flows, BOD₅, suspended solids, and settleable solids; any additional design values, such as nitrogen, etc., should be listed, if applicable.

(e) NPDES PERMIT REQUIREMENTS

Enter the monthly average values which the NPDES permit requires the plant to achieve.

(f) DESIGN EFFICIENCY

Compare the actual plant performance values to those values entered under Design Data and check the appropriate boxes.

(g) PLANT COMPLIANCE WITH PERMIT REQUIREMENTS

Compare the actual plant performance values to those values entered under Permit Requirements and check the appropriate boxes.

Monthly Items

(1) FLOW (mgd)

Column (c) - Enter the average flow (in mgd) actually occurring during the reporting period.

Column (d) - Enter the flow rate (in mgd) which the plant was designed to treat (average daily flow rate).

Column (e) - Enter the average daily flow rate (in mgd) specified by the NPDES permit.

Column (f) - If column (c) is less than or equal to column (d), check "yes"; if column (c) is greater than column (d), check "no".

Column (g) - If column (c) is less than or equal to column (e), check "yes"; if column (c) is greater than column (e), check "no".

(2) PEAK FLOW (mgd)

Column (c) - Enter the maximum flow (mgd) actually occurring on a single calendar day during the reporting period.

Column (d) - Enter the maximum daily flow (mgd) the plant was designed to treat.

Column (e) - Enter the maximum daily flow (mgd) specified by the NPDES permit.

Column (f) - If column (c) is less than or equal to column (d), check "yes"; if column (c) is greater than column (d), check "no".

Column (g) - If column (c) is less than or equal to column (e), check "yes"; if column (c) is greater than column (e), check "no".

(3) SETTLEABLE SOLIDS (ml/l)

Column (c) - Enter the average settleable solids (ml/l) in the plant influent and effluent for the reporting period and percent removal

$$\frac{\text{influent} - \text{effluent}}{\text{influent}} \times 100$$

Column (d) - If settleable solids removal was specified in the plant design, enter the following, when applicable: the average influent settleable solids (ml/l) the plant was designed to treat, the average effluent settleable solids (ml/l) specified by the design, and/or the percent removal

$$\frac{\text{influent} - \text{effluent}}{\text{influent}} \times 100$$

Column (e) - If a requirement for settleable solids removal is specified by

the NPDES permit, enter either the average allowable effluent settleable solids (ml/l) or the required percent removal, whichever is applicable.

Column (f) - If the actual effluent value (ml/l) or the actual percent removal ((%) column (c)) meets the requirements of the corresponding value in column (d), check "yes", if the actual effluent value (ml/l) or the actual percent removal ((%) column (c)) does not meet the requirements of the corresponding value in column (d), check "no".

Column (g) - If the actual effluent value (ml/l) or the actual percent removal ((%) column (c)) meets the requirements of the corresponding value in column (e), check "yes"; if the actual effluent value (ml/l) or the actual percent removal ((%) column (c)) does not meet the requirements of the corresponding value in column (e), check "no".

(4), (5), (10), & (11) - SUSPENDED SOLIDS, BOD₅, NITROGEN, & PHOSPHORUS

Follow the same procedure that is used for settleable solids.

(6), (7), (8), & (9) - DISSOLVED OXYGEN, CHLORINE RESIDUAL, COLIFORM & pH

Follow the same procedure that is used for Settleable Solids, with the exception that only effluent values should be considered (i.e., influent and percent removal do not apply).

2. PLANT RECORDS

ARE MONTHLY OPERATING RECORDS FILED WITH STATE AGENCY?

This question should be answered by either a responsible plant representative or state water pollution control agency representative.

3. DOES PLANT HAVE ALTERNATE ELECTRIC POWER SOURCE?

Dual Feed- Indicates that two separate and independent sources of electric power are provided to the complete works. (A standby switch panel is not dual feed).

Generator- Would indicate an on-site stationary power source, such as a diesel electric generator, etc.

None - Would indicate only a single source of power available to operate the plant.

4. ADEQUATE ALARM SYSTEM FOR POWER OR EQUIPMENT FAILURES?

See "Federal Guidelines - Design, Operation and Maintenance of Wastewater Treatment Facilities".

5. EQUIPMENT PROGRAM

Under this item the three sub-items are the essential elements of a complete maintenance management system. Together, these elements provide for planning maintenance work, accounting for performance of work and assuring adequate inventory control on spares and consumables.

Check "adequate" or "inadequate" for each of the following:

- (a) Routine Maintenance Schedules - Check "adequate" if the plant's system incorporates equipment lists and corresponding equipment labeling; preventive maintenance schedules and standardized maintenance procedures; a work order system for emergency maintenance and repairs and a method for assigning both

preventive and unscheduled maintenance to appropriate personnel.

(b) Records of Maintenance, Repairs, and Replacement
Check "adequate" if records maintained account for all major preventive and emergency maintenance actions, dates performed, time and money expended and personnel assigned.

(c) Spare Parts Inventory - Check "adequate" if a system for maintaining a continuous inventory of replacement parts, tools, chemicals, and other consumables is maintained.

6. IS PLANT EFFLUENT BEING CHLORINATED?

If another type of disinfection is employed, so indicate.

7. DOES SEWAGE BYPASS PLANT IN WET WEATHER?

This refers to bypass provisions at the plant. Do not confuse this question with item 14, below.

8. DOES SEWAGE BYPASS PLANT IN DRY WEATHER?

Self-explanatory.

9. AGENCIES NOTIFIED OF EACH BYPASS

Enter none if a report is not made at the time of each bypass. If only for certain bypasses, give details.

10. BYPASS FREQUENCY (MONTHLY)

Indicate the average number of wet and dry weather bypasses that occur each month.

11. AVERAGE DURATION OF BYPASS (HRS.)

Self-explanatory.

12. REASON FOR BYPASSING.

Some common reasons for bypassing are: surcharged

collection system, insufficient pumping capacity, hydraulically overloaded plant, equipment failures, construction problems.

13. CAN BYPASS SEWAGE BE CHLORINATED?

As a minimum, all plants, even in emergency situations, should provide at least the equivalent of primary treatment and disinfection.

NOTE: Unless such provisions as above are made for bypasses, plant rating in item G.4 cannot be acceptable.

14. DO SEWER OVERFLOWS OCCUR UPSTREAM OF PLANT?

This is to be interpreted as meaning relief overflows from combined sewers, other surcharged sewers or facilities, or upstream equipment failures.

15. ANY ODOR COMPLAINTS BEYOND PLANT PROPERTY?

Explain briefly in space allotted.

16. OBSERVED APPEARANCE OF EFFLUENT, RECEIVING STREAM OR DRAINAGE WAY.

Effluent - Clear, turbid, color, foam, suds, visible discharge plume, other.

Receiving Waters - Clear, turbid, color, odors, other.

17. IS A CONSULTING ENGINEER RETAINED OR AVAILABLE FOR CONSULTATION ON OPERATION AND MAINTENANCE PROBLEMS?

The important point is to indicate whether there is a consulting engineer available for assistance and the basis upon which his services can be attained.

18. TRAINING

In those situations where the inspector determines that the operator or other personnel could benefit from additional training and such training is not

available, he may suggest a correspondence course such as, "Operation of Wastewater Treatment Plants, a Field Study Training Program," prepared by California State University, Sacramento, or other similar courses. The above-mentioned course may be obtained by writing to the program director:

Professor Kenneth Kerri
Department of Civil Engineering
California State University, Sacramento
600 Jay Street
Sacramento, California 95819

19. IS LAB TESTING ADEQUATE FOR THE CONTROL REQUIRED FOR THIS SIZE AND TYPE OF PLANT AND USES OF RECEIVING WATERS?

If no, explain. The following publications may be useful for guidance in assessing adequacy of laboratory control.

- (1) "Procedural Manual for Evaluating the Performance of Wastewater Treatment Plants."
- (2) "Estimating Laboratory Needs for Municipal Wastewater Treatment Facilities."

Other documents which provide pertinent guidance may be obtained from state water pollution control agencies, regional or basin regulatory agencies, etc.

NOTE: This block must be checked inadequate if no data are available to complete at least items C.1.(c)(3) through C.1.(c)(5) of this form unless recent corrective action has been taken to assure that such data will be available in the future.

20. EXPLAIN MAIN DIFFICULTY EXPERIENCED WITH INDUSTRIAL WASTES

Describe types of waste effects on plant operations

and whether the plant needs assistance for assessment of related problems.

21. PERMANENT RECORD FILE:

(a) PLANT OPERATION AND MAINTENANCE MANUAL

The objective here is to note whether the plant personnel have an O&M manual for their general use. If there is no manual tailored for that specific plant, or if the manual is incomplete, as per the Federal Guidelines, this should be described in item G.2.

(b) AS-BUILT PLANS AND SPECIFICATIONS

The as-built plans should be filed at the plant and should show any substantive changes subsequent to commencement of operation.

(c) MANUFACTURER'S OPERATION AND MAINTENANCE SPECIFICATIONS

Self-explanatory.

(d) FLOW CHARTS

A detailed schematic drawing or other portrayal showing all hydraulic control features of the facility should be exhibited at the plant.

22. ESTIMATED WEEKLY MAN-HOURS FOR LAB WORK INCLUDING MAINTENANCE OF RECORDS AND PREPARATION OF REPORTS.

Self-explanatory.

23. ANNUAL BUDGET FOR MAINTAINING AND OPERATING PLANT.

Provide dollar amounts from most recent calendar or fiscal year.

24. STABILIZATION PONDS

(a) WEEDS CUT AND VEGETATION GROWTH IN PONDS REMOVED?

Self-explanatory.

(b) BANKS AND DIKES MAINTAINED?

Note evidence of erosion and the source, such as wind and wave action, rodent undermining, etc.

(c) ANY REPORTS OF GROUNDWATER CONTAMINATION FROM POND?

If yes, note pertinent aspects of the problem.

(d) SEEPAGE REPORTED?

Self-explanatory.

(e) ADEQUATE DEPTH CONTROL?

There should be adequate flexibility for depth control throughout the full range of design depth.

(f) EFFLUENT RELEASE IS:
(CONTINUOUS, INTERMITTENT, SEASONAL)

Self-explanatory.

D. LABORATORY CONTROL

The comments should generally cover the evaluator's opinion as to the adequacy (quantitative and qualitative) of the laboratory analysis shown in relation to this particular plant. The comments should also include an evaluation of the sampling procedures and should indicate any additional analysis he believes will provide significant increases in plant performance.

NOTE: If, Item C. 19 is checked "inadequate" for any reason, the causes for such an evaluation must be discussed in this item. Further, any such inadequacy will require that the general plant rating in item G.4 be conditional or unacceptable and some follow-up action should be included in item G.2.

E. PLANT PERSONNEL INVENTORY

Inspectors must provide accurate and complete inventory data on present and authorized plant personnel. These data will provide a base for projecting manpower and training requirements at local and national levels and will have a significant impact on the future direction of manpower programs.

(a) PERSONNEL CLASSIFICATION

1. MANAGER/SUPERVISOR

Superintendent, Assistant Superintendent, Maintenance Supervisor, Mechanical Maintenance Foreman.

2. OPERATOR

Operator II, Operator I, Operations Supervisor, Shift Foreman.

3. LABORATORY

Chemist, Laboratory Technician.

4. MAINTENANCE

Mechanic, Maintenance Helper, Electrician, Painter.

5. OTHER PLANT WORKERS

Automotive Equipment Operator, Custodian, Laborer.

6. OTHER OFFICE CLERICAL

Clerk-typist, Storekeeper.

(b) EMPLOYMENT

MAN-HOURS PER WEEK - Enter the number of hours worked by the workers in each of the Personnel Classifications during the week before the plant inspection.

NUMBER - Enter the number of employees in each Personnel Classification currently employed by the plant.

NUMBER BUDGETED - Enter the number of workers which the plant is authorized to hire.

NOTE: The difference between number budgeted and the number in the previous column represents actual job vacancies.

NUMBER RECOMMENDED - The number of employees in each Personnel Classification which the Inspector determines should be actually authorized for the plant. Reference should be made to EPA and/or state staffing guidelines for making this determination. However, staffing guidelines should be reconciled with unusual conditions noticed by the inspector and/or factors identified by the plant superintendent.

(c) CERTIFICATION

Number of workers in each of the Personnel Classifications recommended or required by the state to be certified. Reference should be made to state certification guidelines.

ACTUAL NUMBER CERTIFIED - Self-explanatory.

(d) TRAINING REQUIRED NEXT 12 MONTHS

NEW HIRES - Include in this column the number of workers required to fill current vacancies and any projected vacancies created by normal turnover and plant expansion. Also include any hires projected to correct differences between number recommended and current actual employment.

UPGRADING - This should be a joint determination of the Inspector and the Plant Superintendent. Upgrade training requirements will include: normal refresher training, as well as training to overcome skill deficiencies of present employees; upgrading employees to meet needs of plant expansion, or to fill jobs created by normal turnover; and to

provide upgrading needed for certification requirements.

F. GUIDE - VISUAL OBSERVATION - UNIT PROCESS

These items are presented here primarily to assist the inspector in recording comments on specific processes as they are evaluated in the course of inspecting the entire facility.

The separate process ratings are to assist the evaluator in selecting a general rating for the entire facility (item G.4.).

G. NOTATIONS BY EVALUATOR

1. OPERATION AND MAINTENANCE PROBLEMS/DEFICIENCIES

The problem and deficiency areas presented here, and the notations presented in F (page 5), will assist the evaluator in the selection of a general rating for the facility (item G.4.).

2. BRIEFLY DESCRIBE THE MAJOR PROBLEMS INDICATED ABOVE

List all items in need of follow-up. Indicate the nature of actions necessary and by whom.

Assess any design deficiencies encountered and identify related problems.

Include approximate date of follow-up inspection to determine progress in correcting deficiencies or problems.

Use additional sheets if necessary.

3. PURPOSE OF INSPECTION

GRANT COMPLIANCE - This inspection is to determine if the constructed facility complies with Federal requirements for the provision of an operable treatment works.

PERMIT COMPLIANCE - This inspection is to determine if the facility complies with the conditions stipulated by the NPDES permit.

FOLLOW-UP - This inspection is to determine if corrective actions have been taken on deficiencies/problems, and to assess the effectiveness of such actions.

4. GENERAL RATING

Check "Acceptable" only if all of the following apply:

The plant produces an effluent that meets an assigned (where applicable) effluent standard, permit requirement, or regulation; plant efficiency is consistently equal to or better than design efficiency; and disinfection, when required, is consistently adequate.

NOTE: Do not assign an "acceptable" rating unless sampling and testing procedures have been evaluated as adequate and operational data is available to complete items C.1.(c)(3) through C.1.(c)(11) as required by the plant.

Raw or partially treated wastes are not bypassed more than is absolutely necessary. When bypasses must be made, at least the equivalent of primary treatment and disinfection is provided.

Management, supervisory and key operational positions are assigned to personnel qualified to assure continuity of effective operations.

Staff size is adequate to continue operating plant efficiently and to accomplish all required preventive and emergency maintenance.

Training for new entry personnel and for upgrading or updating present staff is available and accessible to employees.

Check "Conditional" if the following exist but could be remedied with minor corrective action.

The plant produces an effluent that is below, but is consistently close to, the assigned (where applicable)

effluent standard, permit requirement, or regulation, and the plant is not under orders to upgrade treatment.

Plant staffing, maintenance management, or laboratory sampling and procedures are substandard, and a trend indicates that even though the effluent standards are being met at present they will in all probability fall below an acceptable standard in the near future.

NOTE: Sampling and testing procedures must be adequate to measure actual plant performance; data must be available to complete applicable items in C.1.(c)(3) through C.1.(c)(11) of this form; adequate disinfection is being provided (where required); treated wastes are not bypassed more than is absolutely necessary.

Check "unacceptable" if one or more of the following apply:

Operational performance is substantially below required levels.

Plant bypasses more frequently than is necessary or fails to provide the equivalent of primary treatment and disinfection of bypasses.

No operational data is maintained.

The quality of sampling and testing procedures is unacceptable.

FORM DISTRIBUTION INSTRUCTIONS

Copies of the form will be distributed as follows:

Yellow.....For plant and local use.

Orange.....State water pollution control agency.

White.....EPA Regional Office, Operation & Maintenance Activity.

Pink.....EPA Headquarters, Municipal Operations Branch, Municipal Permits and Operations Division, Office of Water Program Operations.

REFERENCE DOCUMENTS

Prepared Under the Auspices of:

Municipal Operations Branch
Municipal Permits and Operations Division
Office of Water Program Operations
Environmental Protection Agency

1. "Procedural Manual for Evaluating the Performance of Wastewater Treatment Plants" *
2. "Federal Guidelines - Design, Operation and Maintenance of Wastewater Treatment Facilities" *
3. "Considerations for Preparation of Operation and Maintenance Manuals"
4. "Maintenance Management Systems for Municipal Wastewater Facilities"
5. "Estimating Laboratory Needs for Municipal Wastewater Treatment Facilities"
6. "Start-up of Municipal Wastewater Treatment Facilities"
7. "Estimating Staffing for Municipal Wastewater Treatment Facilities"
8. "Emergency Planning For Municipal Wastewater Treatment Facilities"

* Available from the Operation & Maintenance Program in each EPA Regional Office. All others may be obtained at cost from the Superintendent of Documents, U.S. Government Printing Office, Washington, D. C. 20402