CHECKLIST FOR REVIEW OF OPERATION AND MAINTENANCE MANUALS
(Rev. 12/05)

A. PROJECT IDENTIFICATION & DESCRIPTION:

Project Name

Project Number

Consultant

Collection System _________ Treatment Plant ____________________________

Design Flow Capacity _______________________ MGD

State any process modifications ____________________________

Receiving Stream ____________________________

CHECKLIST LEGEND

( √ ) If material fully complies with requirements

(N/A) If the review items do not apply to this facility

( ) If the material does not fulfill requirements.
    (Note these in the Comment Section at the end of the checklist)

TABLE OF CONTENTS (   )

I. INTRODUCTION
   A. Operation and Managerial Responsibility
      ( ) Operator responsibilities defined ( ) Manager responsibilities
      ( ) List of available training ( ) List of recommended publications

   B. Treatment Plant Requirements
      ( ) Type of treatment – brief description of major process
      ( ) Treatment requirements/effluent limitations
      ( ) Description of plant type – brief description of individual units
      ( ) Flow pattern with diagram
C. Collection System Requirements
( ) Line sizes and lengths
( ) Lift station size and capacity

II. DESCRIPTION, OPERATION, AND CONTROL OF TREATMENT FACILITIES
A. For each unit process, general coverage of the following:
   ( ) Description, function, flow routing
   ( ) Listing of major components and mechanical equipment
   ( ) Relationship to adjacent units
   ( ) Methods of control for unit process
   ( ) Discussion of common operating problems and control
   ( ) Discussion of laboratory tests and controls for unit process
   ( ) Start up procedures for unit process

B. For each unit process, specific coverage of the following
   ( ) Normal operation (valve positions, sludge depths, etc.)
   ( ) Alternative operational modes

III. DESCRIPTION, OPERATION & CONTROL OF SLUDGE HANDLING FACILITIES
A. For each sludge handling unit process, general coverage of the following:
   ( ) Description, function, flow routing and design efficiency
   ( ) List of major components and mechanical equipment
   ( ) Methods of control for unit process
   ( ) Discussion of common operating problems and control
   ( ) Discussion laboratory tests and controls for unit process
   ( ) Start up procedures for unit process
   ( ) Sludge disposal (landfill, land apply, etc…)

IV. PERSONNEL
A. Staffing Plan
   ( ) Supervisory
   ( ) Laboratory
   ( ) Clerical
   ( ) Yard Maintenance
   ( ) Operators

B. Qualifications
   ( ) Training
   ( ) Experience
   ( ) Skills Required
   ( ) Certification Required

C. Certification
   ( ) Copy of State Rules and Regulations
   ( ) Certification requirements for this facility

V. LABORATORY TESTING
A. ( ) Outline of sampling and testing program, discussion of purpose
B. ( ) Recommended list of laboratory references
C. ( ) Discussion of laboratory results, expected ranges
D. ( ) Provision of sample laboratory worksheets, instructions
VI. RECORDS
A. (     ) Sample, daily operating log of process operations, instructions
(     ) Sample, monthly operating report to State agency, instructions
(     ) Sample, annual report format
(     ) Operating cost record keeping system recommendations
(     ) Personnel record system recommendations
(     ) Emergency conditions: bypass reports, permit violations, etc.
(     ) Maintenance and laboratory, if not provided elsewhere

B. Equipment Record System
(     ) Equipment numbering system
(     ) Equipment catalog (configuration list)
(     ) Nameplate data cards, all major equipment
(     ) Maintenance record cards, instructions

C. Planning and Scheduling
(     ) Preventive maintenance schedule provided
(     ) Work order system and sample forms

VII. MAINTENANCE
A. (     ) Conceptual description of maintenance program
B. (     ) Recommended list of spare parts
C. (     ) Lubrication schedule, lubricant list
D. (     ) For major equipment items, maintenance procedures

VIII. EMERGENCY OPERATING PLAN
(     ) Vulnerability analysis
(     ) Emergency equipment list
(     ) Police/Fiore coordination
(     ) Emergency operations/failsafe features
(     ) Mutual aid list
(     ) List of industrial sources
(     ) Emergency operating plan

IX. SAFETY
A. (     ) Recommended safety program

B. Content
(     ) Emergency phone list
(     ) Sewer hazards
(     ) Mechanical equipment hazards
(     ) Health hazards
(     ) Oxygen deficiency/gases
(     ) Process chemicals
(     ) Safety equipment list
(     ) Electrical hazards
(     ) Explosion and fire hazards
(     ) Chlorine hazards
(     ) Laboratory hazards

X. UTILITIES
A. (     ) List of utility suppliers, contact list
XI. ELECTRICAL SYSTEM
   A. ( ) Description
      ( ) Emergency power for WWTP (generator, etc…)
      ( ) Emergency power for Pump Stations (portable/permanent generator, etc..)

XII. APPENDIX (make sure the following are at the STP)
      ( ) Manufacturer’s manuals
      ( ) As-built/Record drawings*

*(Generally provided 60 days after construction completion)

COMMENTS:
   Summarize the apparent inadequacies revealed by the review of the submitted manual
   and describe the resolution of each. If necessary, summarize pertinent conversations and cite
   specific correspondence with the consulting engineer and/or owner.

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Project Manager  Date

________________________________________________________________________

Engineering Branch Leader  Date