

**New York City Watershed Program**  
**Information Bulletin No. 13**  
Construction Phase Guidelines

This bulletin is intended to guide you, the WWTP Owner, and your selected Engineer, through the Construction phase of the Upgrade Program. Please refer to the following documents as you prepare for this process:

- Section 2.4 of the Scope of Engineering Services, in Appendix A, Attachment A, Section 2 of the Upgrade Contract
- Appendix A, Attachment A, Section 7 of the Upgrade Contract, the Preliminary Engineer's Scope of Work
- Recommended Standards for Wastewater Facilities, 1990 (Ten States Standards)
- Design Standards for Wastewater Treatment Works, 1988 (NYSDEC 1988)
- NYCDEP Technical Bulletins

The construction phase of the Upgrade Program commences upon NYCDEP's approval of the bids and EFC's subsequent authorization to proceed with Execution of Contracts and Construction.

**Please note:** As with all previous portions of the Upgrade Program, the Engineer **must** submit key documents to you, the WWTP Owner, for review and acceptance prior to submission to EFC. These documents include Change Orders, Contractor's Completion Documents, Functional Completion Certification, etc.

**Construction Phase and Payments**

**Payments during construction:**

1. EFC will not make payment on any construction contract until the fully executed contracts have been received by EFC. It is therefore imperative that the contracts be executed and two originals be forwarded to EFC as soon as possible. The Pre-Construction Meeting and construction work may start prior to EFC receiving the fully executed construction contracts.

2. All contractor applications for payment are to be submitted on AIA Form G702. EFC recommends that the contractor not show any retainage being withheld on the AIA form. As NYCDEP is funding the project through EFC, pursuant to Section 3.03C of the Upgrade Contract, 5% retainage will be held by EFC. The full amount (without retainage removed) should be included on the Cost Summary Form. EFC will withhold the 5% retainage, paying 95% of the eligible amount requested on the Cost Summary Form.

**Construction Phase Outline:**

1. The Engineer is required to schedule a Pre-Construction Meeting for each project prior to the commencement of construction. EFC and NYCDEP are to be invited to the meeting. The Engineer is responsible for the preparation and mailing of meeting minutes for the Pre-Construction Meeting and subsequent monthly job meetings. EFC should be copied on all meeting minutes.
2. Change Orders: Three copies of each proposed change order are to be submitted to EFC for review. Change orders are to be submitted in a standard format, such as AIA or EJCDC, allowing for signature by the Owner, Engineer, and Contractor. In instances where a NYCDEP response is required, EFC will forward copies to NYCDEP and coordinate the review. EFC will forward approval or denial of each change order to the Owner with a copy to the Engineer. EFC will not make payment on a change order until two copies of the fully executed change order is received by EFC.
3. The Plan of Operation and The Startup Plan & Acceptance Procedures submitted with the PUP may require modification due to changes during construction. If changes are necessary, EFC suggests that the documents be resubmitted by the engineer at least one month prior to the anticipated date of Functional Completion Certification. NYCDEP approval of these documents is required prior to authorization to proceed with Startup and Performance Testing.
4. Operation and Maintenance Manual: An outline of this document should have been submitted with the 100% PUP. The complete draft O&M manual is to be submitted with the Functional Completion Certification.
5. Contractor's Completion Documents: Prior to Functional Completion, the Engineer should begin to assemble the Contractor's Completion Documents as stated in paragraph 2.4.11. Two copies of the following documents, as necessary for the particular project, are to be submitted along with the Functional Completion Certification: schedules and certificates of inspections, tests, and approvals. The remainder of the Contractor's Completion Documents should be submitted with the Construction Closeout Documents (see Item 1 under Construction Closeout below). Items including, but not limited to, vendor's maintenance and operating instructions, copies of the contractor's marked-up record documents and shop drawings will not need to be submitted to EFC, but should be obtained from the contractor(s) and

retained by the engineer and/or operator for their use.

6. The schedule included as Scope of Engineering Services paragraph 2.4.12 should be the revised startup schedule included with the Startup Plan. No separate schedule is required.

### **Functional Completion Certification**

1. Certificate of Functional Completion: This document shall be submitted when the Contractor(s) and Engineer have inspected the work and agree that the WWTP is ready to proceed with Startup and Performance Testing. Please note that only one Certificate of Functional Completion is to be submitted for the project. If multiple construction contracts exist, the Engineer is not to prepare a separate certificate for each contract.
  - A. Testing of the equipment necessary prior to operation, including but not limited to, pressure, wet, and electrical testing, shall be successfully completed as per the approved Startup Plan and Acceptance Procedures. EFC and NYCDEP are to be invited to all equipment testing. As noted below, the Engineer shall submit a preliminary punch list of outstanding items with the Functional Completion Certification. Following submission of the Functional Completion Certification and preliminary punch list, the Engineer is to conduct a conference call with EFC and NYCDEP to discuss the readiness of the WWTP to begin operations. If agreed upon, the inspection to confirm Functional Completion, defined in the Upgrade Contract as "Final Inspection," will be scheduled during the conference call.
  - B. The Functional Completion Certification should include the following statements:
    - i. Certification that construction of the WWTP Upgrade has been satisfactorily completed and the WWTP Upgrade is "Functionally Complete",
    - ii. Certification that the WWTP Upgrade was constructed in accordance with the approved Final Upgrade Plan,
    - iii. Certification that the equipment was installed as designed and specified,
    - iv. Certification that the WWTP Upgrade is ready to go to Startup and Performance Testing (SPT),
    - v. Certification must reference and have attached a punch list (if applicable) of outstanding issues, and should further certify that in the Owner's and Engineer's judgment, the punch list items will not affect commencement of Startup and Performance Testing,
    - vi. Certification must be signed by both the Owner and Engineer, and must contain the Engineer's P.E. Seal,

- vii. Any other information the Engineer and/or Owner deem relevant and appropriate.
2. Inspection for Functional Completion: The inspection for Functional Completion, defined as “Final Inspection” in the Upgrade Contract, shall be attended by the WWTP Owner and Engineer, EFC, and NYCDEP. The Engineer is also responsible for contacting NYSDEC and the county health department, if applicable, to invite them to take part in the inspection. Attendance by the contractor(s) at the inspection is at the WWTP Owner’s discretion. If the WWTP is not deemed Functionally Complete, an additional inspection will be scheduled and this step repeated. See paragraphs 2.4.15.1 through 2.4.15.3.1 of the Scope of Engineering Services for additional detail on this step.
3. After NYCDEP concurs that the WWTP is ready for operations, NYCDEP will issue authorization to proceed with Startup and Performance Testing to the WWTP Owner.
4. It is anticipated that a Punch List will exist for most facilities at the time NYCDEP concurs that the WWTP is Functionally Complete and authorizes the commencement of Startup and Performance Testing. As stated in the Scope of Engineering Services sections 2.4.15.2.5 through 2.4.15.2.7.1, subsequent Inspections may be conducted until all Punch List items have been addressed to the satisfaction of the WWTP Owner and NYCDEP. A Final Inspection will be scheduled once the Punch List has been completed. Upon NYCDEP’s authorization, EFC will direct the WWTP Owner to proceed with Construction Closeout.

### **Construction Closeout**

1. Construction Closeout Documents: Within 30 days of authorization from EFC to proceed with Construction Closeout, two copies of the Construction Closeout Documents are to be submitted to EFC. These documents must be approved by NYCDEP prior to the closeout of construction contracts and consist of:
  - A. An Operation and Maintenance Plan consisting of the following:
    - i. Operations and Maintenance Manual. The O&M Manual submitted at the time of Functional Completion may require modification prior to the closeout of construction contracts. If final revisions are needed, they will be done at this time.
    - ii. Record Drawings. Two copies of engineer-conformed plans and one set of mylars prepared as required in section 2.4.16.1.1.3.1 are to be submitted to EFC. Additionally, one set of conformed plans and specifications should be forwarded to the WWTP Owner.

- iii. If necessary, a revised schedule for startup and performance testing. Otherwise, copies of the existing schedule.

Please note that the cost estimate required by the Upgrade Contract will not be necessary with this submittal, as the O&M Agreement will have been finalized and all costs included therein.

- B. Statement of potential claims. The Engineer shall include a verified (notarized) statement from the WWTP Owner identifying all potential claims associated with construction of the WWTP Upgrade. If there are no claims, the Engineer shall include a verified (notarized) statement of no claims from the Owner.
  - C. Final Contractor Completion Documents as follows:
    - i. Affidavit of Payment of Debts and Claims (G706) and attachments
      - (a) Contractor's Affidavit of Release of Liens (G706A) and attachments
        - a. Contractor's Release or Waiver of Liens conditional upon final payment (on contractor's letterhead – see sample)
        - b. Separate Releases or Waivers of Liens from Subcontractors and material and equipment suppliers, or alternatively acceptance of risk, indemnification and hold harmless within the Release or Waiver of Liens
    - ii. Consent of Surety to final payment/reduction in or release of retainage (G707)
    - iii. Contractor's Affidavit of no claims (notarized)
    - iv. Maintenance Bond which lists NYCDEP as additional Obligee
    - v. Confirmation from contractor regarding completion and approval of all punch list items
    - vi. Warranties/Guarantees (Equipment Contracts Only)
- 2. EFC will review the Construction Closeout Documents for the entire WWTP for completeness and request additional information from the Engineer, if necessary. The Construction Closeout Documents will then be forwarded to NYCDEP for review and approval. Upon NYCDEP approval, EFC will be authorized to release the retainage to the Owner for final payment to the construction contractors. Please note that the release of all retainage will occur in one payment to the Owner for subsequent payment to all contractors.
  - 3. If needed, the engineer is required to provide services during Startup and Performance Testing for up to a year following NYCDEP's written concurrence of Functional Completion Certification.
  - 4. Following Construction Closeout, insurance will no longer be reimbursed by NYCDEP.

*Note: This bulletin is only intended to serve as a guide for your reference during the construction phase of the Upgrade Program. Please remember that all documents are subject to NYCDEP review and approval. Therefore, additional information and/or submissions may be requested by NYCDEP prior to you receiving approvals. Compliance with all terms and conditions of the Upgrade Program Contract is required.*

Please refer any questions regarding the Construction Phase to:

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625 Broadway, 7<sup>th</sup> Floor  
Albany, New York 12207-2997  
Att: Watershed Upgrade Engineering Group  
Phone: (518) 402-7461 or (800) 882-9721  
Fax: (518) 486-9248