

SECTION 01700

PROJECT CLOSEOUT

A. Operational Readiness Evaluation (ORE):

1. When the Project is substantially complete, the Contractor shall notify the MPO Construction Inspector, who will then notify the facility's Safety Representative that the facility is ready for an ORE.
2. Before notifying MPO, complete the following:
 - a. Final cleanup, touch up and repair of marred exposed finishes.
 - b. Startup testing of all electro-mechanical and fire detection/protection systems, power operated equipment and instruction of BNL personnel.
3. MPO reserves the right to set up a preliminary ORE prior to substantial completion.
4. Upon receipt of a notification for an ORE, the BNL ESH&Q Division will, with an appointed committee, conduct the review to determine if all safety and maintenance requirements have been met for occupancy and operation.
 - a. Deficiencies will be noted, the Contractor will be given a copy and shall correct all that are Contract responsibilities. BNL will either correct the others with BNL personnel or issue a Change Order for the Contractor to make the corrections.

B. Final Inspection:

1. Concurrently with the ORE notification, the Contractor shall request MPO to perform a final inspection.
 - a. Prior to requesting inspection by MPO, the Contractor shall assure that the Work is completed in accordance with the specified requirements and is ready for the requested inspection.
2. The Contractor shall provide to the MPO Construction Supervisor a list of items remaining to be completed or corrected.
 - a. Within a reasonable time after receipt of the list, MPO will inspect to determine status of completion.
 - b. Should MPO determine that the Work is not substantially complete:
 - 1) MPO will so notify the Contractor, in writing, giving the reasons therefore.
 - 2) The Contractor shall remedy the deficiencies and notify MPO when ready for reinspection.

- 3) MPO will then reinspect the Work.
 - 4) This procedure will be repeated until all deficiencies have been corrected and Work accepted as completed.
 - 5) Work performed during the pre-acceptance/acceptance/project close-out period shall be performed in accordance with the contractor's approved Safety Plan as well as all applicable BNL and OSHA construction safety requirements. This also includes any "punch-list work" generated during the construction period. Additional Work Planning may be necessary and will be accomplished at no additional cost to BNL.
3. Results of the completed inspection will form the basis of requirements for final acceptance.
- C. Final Acceptance:
1. Before requesting final acceptance of the Work and the last monthly payment, complete the following:
 - a. Submit last monthly payment request for completed work with releases of claims. Final payment request shall be for balance of retainage held, in accordance with Clause K below.
 - b. Submit a copy of the final inspection list stating that each item has been completed or otherwise resolved for acceptance.
- D. Record Document Submittals:
1. Do not use Record Documents for construction purposes; protect from loss in a secure location; provide access to Record Documents for BNL's reference.
 2. Submit Record Documents in compliance with Section 01300 "Submittals".
- E. Record Drawings:
1. Maintain a clean, undamaged set of blue or black line white-prints of Contract Drawings and Shop Drawings. Mark up these drawings to show the actual installation. Mark whichever drawing is most capable of showing conditions accurately. Give particular attention to concealed elements that would be difficult to measure and record at a later date.
 - a. Organize record drawing sheets into manageable sets, bind with durable paper cover sheets, and print suitable titles, dates and other identification on the cover.
- F. Record Specifications:
1. Maintain one copy of the Project Manual, including addenda. Mark to show variations in actual Work performed in comparison with the Specifications and modifications. Give particular attention to substitutions, selection of options and similar information on

elements that are concealed or cannot be readily discerned later by direct observation. Note related record drawing information and Product Data.

- a. Upon completion of the Work, submit record Specifications to BNL for their records.

G. Maintenance Manuals:

1. Organize maintenance data into sets of manageable size. Bind in individual heavy-duty 2-inch, 3-ring vinyl-covered binders, with pocket folders for folded sheet information. Mark identification on front and spine of each binder. Include the following information:
 - a. Completed Preventative Maintenance Program Data forms.
 - b. Emergency instructions.
 - c. Spare parts list.
 - d. Copies of warranties.
 - e. Wiring diagrams.
 - f. Recommended "turn around" cycles.
 - g. Inspection procedures.
 - h. Applicable Equipment Shop Drawings and Product Data.
 - i. Fixture lamping schedule.
 - j. Control setpoints.
 - k. Pump curves.
 - l. Calibration procedures.

H. Operating and Maintenance Instructions:

1. Arrange for the installer of equipment that requires regular maintenance to meet with BNL personnel to provide 8 hours of instruction in proper operation and maintenance. Include a detailed review of the following:
 - a. Maintenance manuals.
 - b. Spare parts and materials.
 - c. Tools.
 - d. Lubricants.
 - e. Control sequences.
 - f. Hazards.
 - g. Warranties and bonds.
 - h. Maintenance agreements and similar continuing commitments.

2. As part of instruction for operating equipment, demonstrate the following procedures:
 - a. Startup and shutdown.
 - b. Emergency operations.
 - c. Noise and vibration adjustments.
 - d. Safety procedures.

I. Certification of Specification Compliance:

1. In addition to the periodic submissions already made, organize one complete set of CSCs into a heavy-duty 3-ring, vinyl-coated binder. Mark identification on front and spine.
2. Include CSCs for each section of the Specifications, the work of each subcontractor, and each material and item of equipment furnished and/or installed.

J. Final Cleaning:

1. Employ experienced workers for final cleaning. Clean each surface to the condition expected in a commercial-building cleaning and maintenance program.
2. Complete the cleaning specified in Section 01800 before requesting Final Payment.

K. Final Payment:

1. After compliance with all of the above requirements for Project Closeout, submit final payment requesting release of balance of retainage and Contract closeout.

END OF SECTION 01700

Revision History	
Date	Rev. No.
02-19-09	0