National Dredging Quality Management Program (DQM)

DREDGE PLANT INSTRUMENTATION PLAN (DPIP) PUNCH LIST—SCOWS

The Dredge Plant Instrumentation Plan (DPIP) for scows shall include the following as a minimum.

Note: The DPIP must have a Table of Contents in the following order and tabs separating sections.

- Black—Basic requirements for all profiles
- Blue—Add these items to the basic requirements for the Monitoring Profile
- Green—Add these items to the Monitoring Profile requirements for the Ullage Profile

1. Dredging Company
   a. Dredge point of contact
   b. Telephone number
   c. Email address
2. Scow Monitoring System Provider
   a. Scow monitoring system point of contact
   b. Telephone number
   c. Email address
3. Table of Scow Characteristics
   a. Scow ID
   b. Scow dimensions
   c. Hopper dimensions
   d. Scow type/disposal method
   e. Capacity
   f. Minimum and maximum draft
   g. Minimum and maximum displacement
   h. Minimum and maximum ullage
   i. Minimum and maximum volume
4. Sensor Repair, Replacement, Installation, Modification, or Calibration Methods
5. Data-Reporting Equipment
6. Procedure for Providing Sensor Data/Computed Data to the DQM Database via Email

7. System Power Supply
8. System Battery Charge Method
9. Documentation on how the Contract Number can be Changed if the System is Left on Past the End of the Contract
10. System Telemetry
11. Dimensioned Drawings of the Scow
    a. A typical plan and profile view of the scow showing the following:
        i. Bin cross sections
        ii. Locations of the required sensors referenced to the following:
            (1) Fore and aft perpendicular
            (2) Bin length, depth, width, and zero reference
            (3) External hull draft markings (latitudinal, longitudinal, and keel)
            (4) Each other
        iii. Overall scow dimensions
12. Criteria and Method Used to Increment the Trip Number
13. Description of how the UTC Time Stamp is Collected
14. Positioning System
    a. Brand name and specifications
    b. Sampling rates for data acquisition (standard vs. disposal)
    c. Scow heading instrumentation brand name and specifications
    d. Instrument used to calculate COG
    e. Any calculation done external to the instrumentation
    f. Certificates of calibration and/or manufacturer certificates of compliance
    g. A description of how scow speed is determined
15. Hull Status
    a. Instrumentation brand name and specifications
    b. Certificates of calibration and/or manufacturer certificates of compliance
    c. Any calculation done external to the instrumentation
    d. Criteria for determining hull open/closed
16. Drafts
    a. Instrumentation brand name and specifications
    b. Certificates of calibration and/or manufacturer certificates of compliance
    c. Any calculation done external to the instrumentation
    d. Criteria used to determine draft
17. Displacement
    a. Method used by the Contractor to calculate displacement based on fore and aft draft
    b. Tables listing (fresh and salt water) displacement as a function of draft provided by a licensed marine surveyor/naval architect independent of the contractor (feet and tenths of feet)

       Note: These methods and tables must be an accurate reflection of the current configuration and displacement.
18. Bin Ullage
    a. Sensor brand name and specifications
    b. Certificates of calibration and/or manufacturer certificates of compliance

c. Any calculation done external to the instrumentation
d. Criteria used to determine ullage

19. Volume
    a. Method used by the Contractor to calculate bin volume based on fore and aft bin ullage
    b. Table listing the bin volume as a function of bin ullage provided by a licensed marine surveyor/naval architect independent of the Contractor (feet and tenths of feet).
    Note: These methods and tables must be an accurate reflection of the current configuration and volume
20. Contractor Data
    a. Backup frequency
    b. Backup method
    c. Post processing
21. Archive Capability
22. Documentation of Verification that the Reported Values are Applicable for the Sensor and Application
23. Log of Sensor Performance and Modifications
24. Log of Contractor Data Backup as per Section 3.2.6
25. Quality Control Plan as per Section 3.5
    a. Name of the Quality Control Systems Manager
    b. Procedures for checking collected data against known values
    c. Procedures for verifying that the telemetry is functioning