



SD428 MWWTP Oxygen Plant Rehabilitation

Pre-Bid Update

September 19, 2024

10:00am – 11:00am

EBMUD Project Number:

2014270

2020260:32

- **Mandatory Pre-Bid Conference held on July 30th**
 - **Bidding and administrative details were covered then and will not be repeated today**
- **This meeting is a courtesy to bidders to summarize changes in Addenda 1 and 2.**
- **NOTE: Not all addenda changes will be discussed. Please refer to actual addenda**

New Bid Date



BID ADVERTISED:	Friday, July 19, 2024
BIDS DUE:	Wednesday, October 23, 2024 at 1:30 PM To: EBMUD, Purchasing Division 375 11 th Street, <u>First</u> Floor Oakland, CA 9467
BID OPENING:	Immediately following bid deadline at: EBMUD Board Room 375 11 th Street, <u>Second</u> Floor Oakland, CA 9467
ANTICIPATED BOARD AWARD:	November 26, 2024
ANTICIPATED Notice-To-Proceed (NTP):	February 2025
ANTICIPATED MOBILIZATION:	May – June 2025

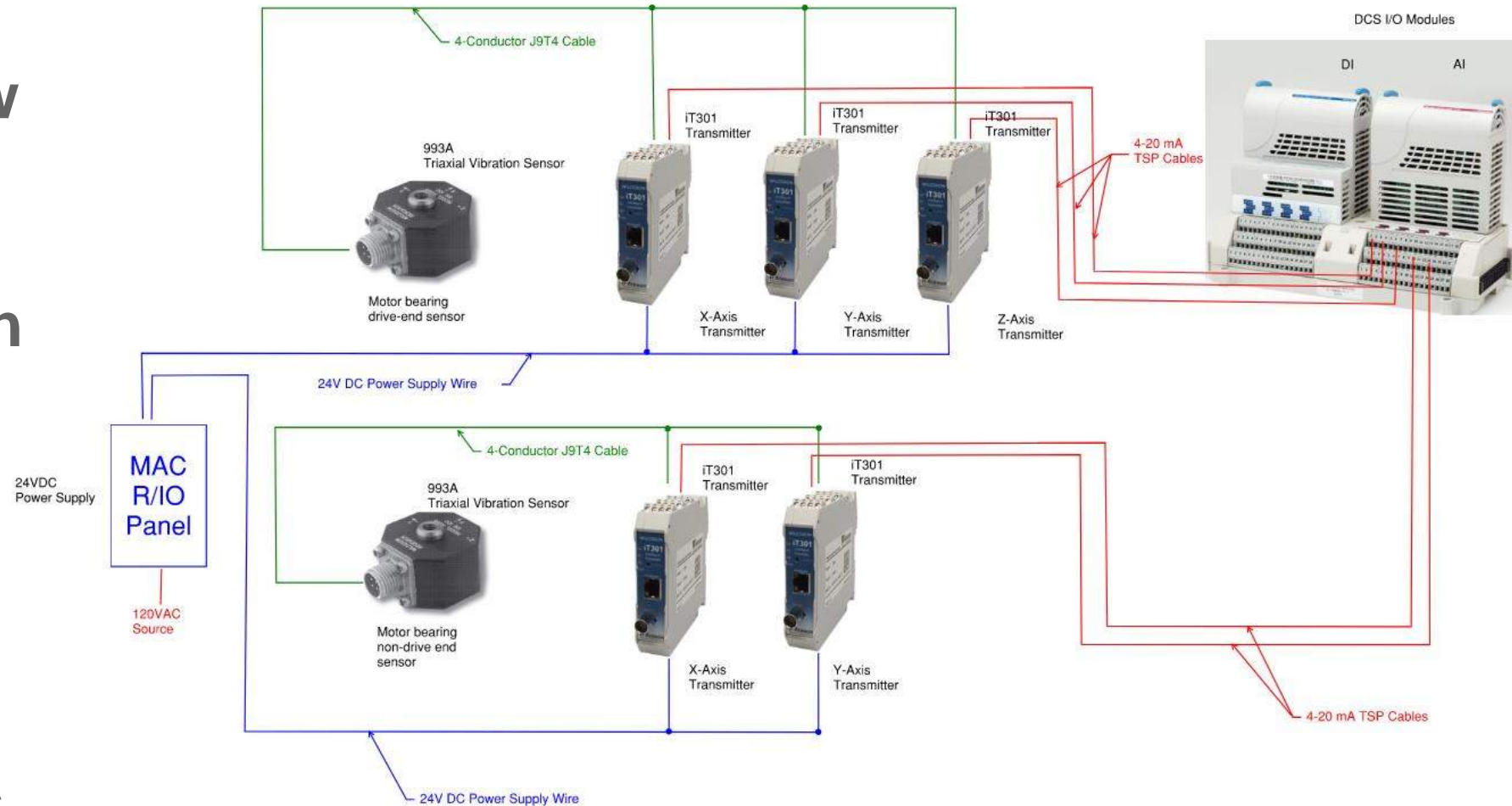
Addendum No. 1



Addenda 1 – MAC Vibration Instrumentation



- Drawings – Updated to show vibration instrumentation consistently with specifications
- MAC - Motor Replacement 22 05 00 - Modified to include vibration probes and transmitters for the motor.

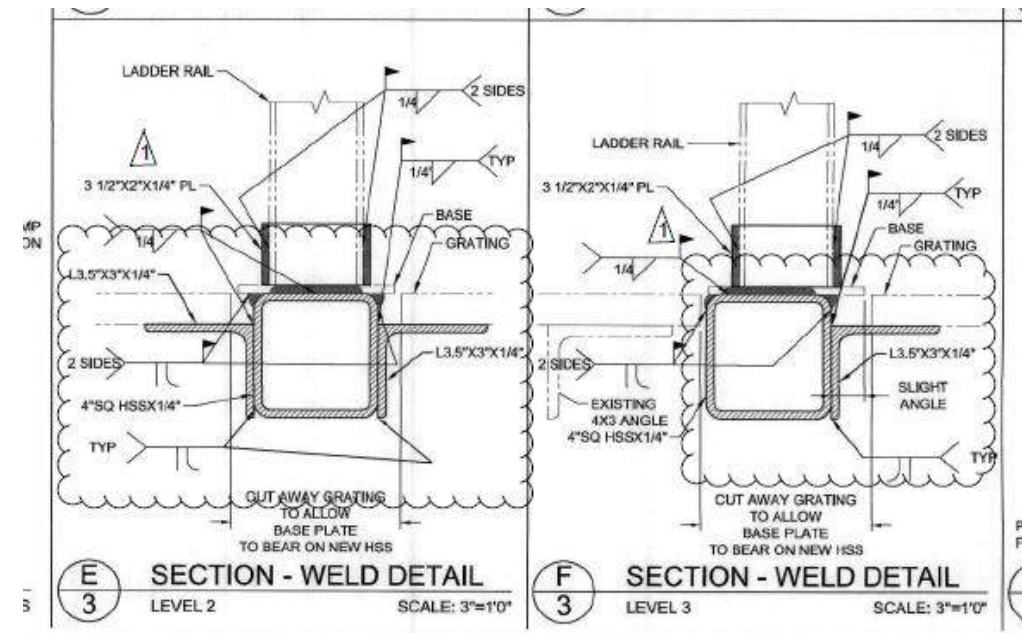


O2 Main Air Compressor Motor Vibration Monitoring System

Addenda 1 – Other Changes

- **Operational Completion Extension:**
 - **+3 Weeks for Cryo Turbine Refurbishment** (scope added to addendum 2)
 - **No additional extension possible due to process constraints**
- **V&A condition assessment**
 - **Added to Appendix B for informational purposes**
- **Fall protection drawings updated to show additional welding**

“One of the two oxygen plants shall be made “ready for integration programming” within three hundred eighty-six (386) calendar days after the Notice to Proceed.”



Addendum No. 2



Addendum 2 - Inlet Guide Vane Refurb

- **Plant 2 Cryogenic Expansion Turbine Inlet Guide Vane**
 - Not able to operate within full range, icing up
- **Plant 2 inlet guide vane to be removed and sent away for refurbishment by Contractor**
- **Construction Considerations**
 - Vermiculite insulation must be removed
 - Work must be sequenced to not delay project completion
 - Qualification requirements for refurbishment shop



- **Document 00 41 02 Bid Form**
 - Plant 2 inlet guide vane added to base scope
 - Plant 1 inlet guide vane added as Optional Bid Item
- **Document 01 35 13 Special Project Procedures**
 - Ensure refurbishment can be done during allotted plant outage – Will require coordination with refurbishment shop
 - Vermiculite must be removed prior to removal of inlet guide vane
- **Appendix D**
 - Instruction Manual for cryo turbine added as a reference
- **Specification 43 01 10.17 Cryogenic Expansion Turbine Inlet Guide Vane Refurbishment**
 - New spec Includes qualifications and requirements for refurbishment shop
 - Includes suggested shops

Addendum 2 – Make line replacement

- **Make Line:**
 - Transfers liquid oxygen from cold box to LOX storage tanks
- **Leak in existing copper pipe discovered**
- **Pipe to be replaced**
 - Existing Pipe: 1” insulated copper pipe
 - New pipe: 1” stainless steel pipe
 - Refer to drawings for new work
- **Sequencing**
 - Work performed when associated cold box is out of service.



- **Specification 05 05 24 Shop and Field Welding and Brazing**
 - Additional requirements added for welding and brazing of new pipe (including stainless steel)
- **Specification 40 05 13 Process Pipe and Fittings**
 - Specifications for stainless steel pipe added
- **Specification 40 42 13.10 Process Piping Insulation**
 - Added specification for make line insulation
- **46 31 58 Cleaning for Oxygen and Ozone Service**
 - Cleaning for piping, equipment, and instrumentation added to new specification
 - Deleted cleaning language from 01 35 13, Special Project Procedures

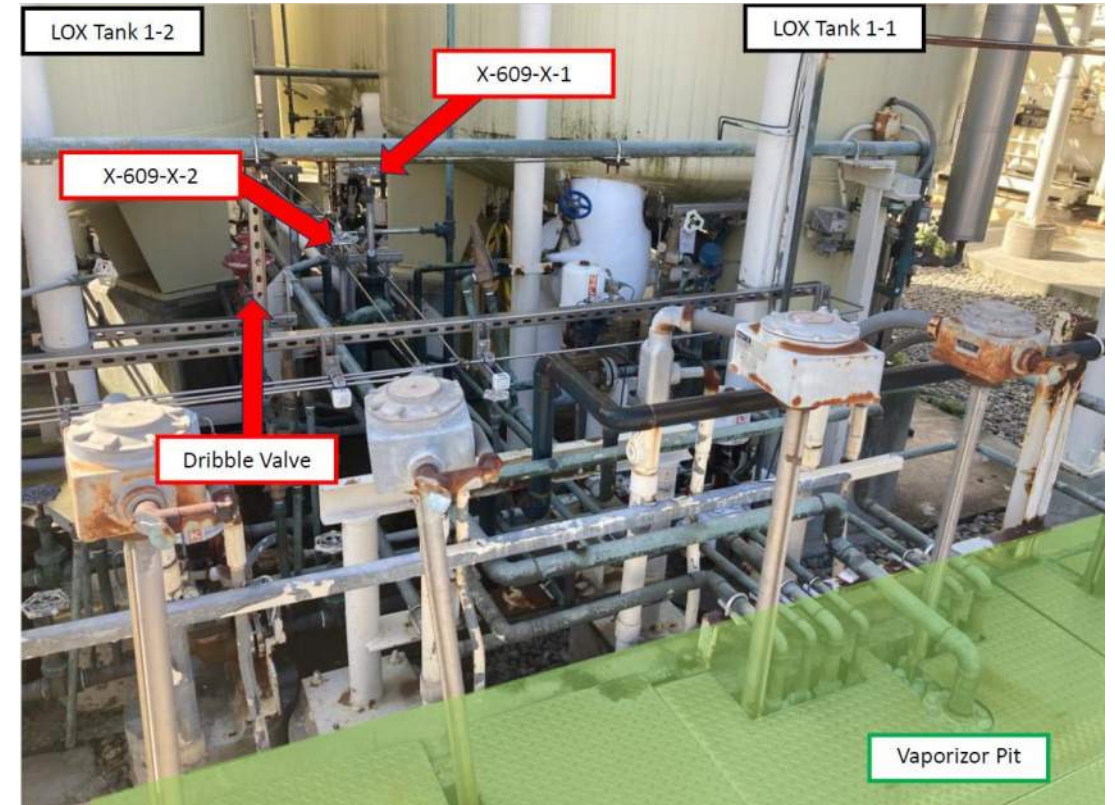
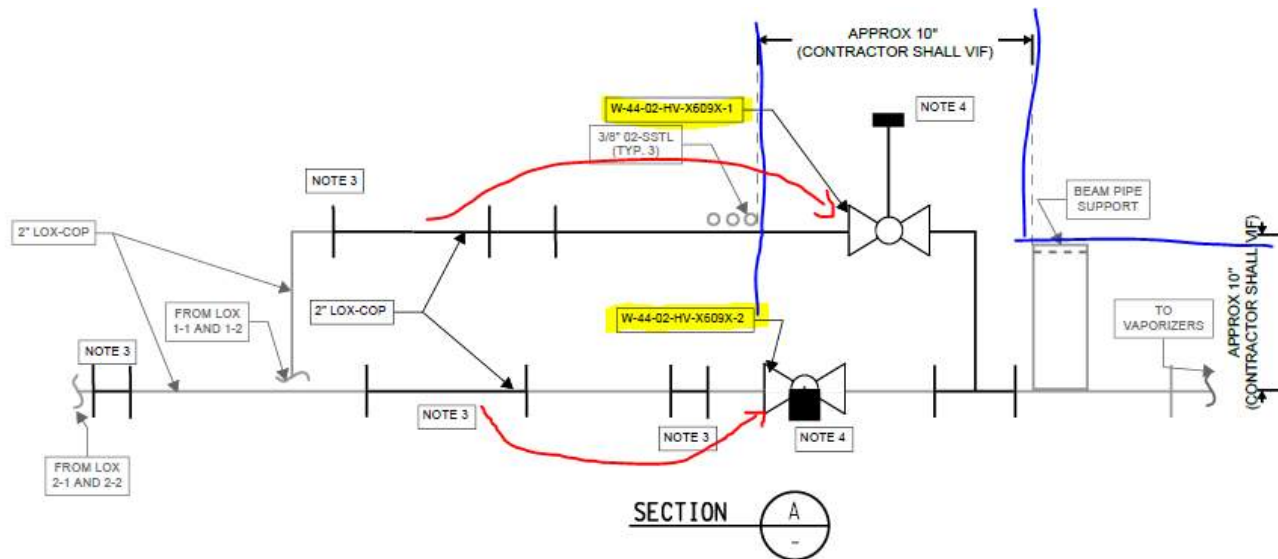
Addendum 2 - New Cold Box Valves/Piping

- **New Cold End Gel Trap Valves**
 - Existing valves are not operating properly. Contractor to replace.
- **Work shown on Addendum 2 Drawings**
- **Specification 40 05 23a Control Valve Purchase Specifications**
 - New valves added to purchase spec



Addendum 2 - New LOX Tank Valves/Piping

- LOX Tank withdrawal Valve replaced to improve operator access
 - New valves required
 - Modifications to existing copper pipe will be required



- **Specification 05 05 24 Shop and Field Welding and Brazing**
 - Specifications for welding/brazing existing copper pipe
- **Specification 40 05 23a Control Valve Purchase Specifications**
 - New valves added to purchase spec
- **46 31 58 Cleaning for Oxygen and Ozone Service**
 - Requirements will apply to modified pipe sections

- **SS 01 75 17 Field Testing and Startup + SS 01 79 00 Demonstration and Training**
 - Cryogenic Oxygen Plant Specialist's responsibilities expanded
- **SS 01 79 00 Demonstration and Training**
 - Fall protection system and MAC motor training added
- **SS 05 05 14 Hot Dip Galvanizing**
 - Only hot stick galvanizing repair allowed
- **SS 22 11 19 Domestic Water Piping Specialties**
 - Eye wash added

- **SS 40 70 70 Instrumentation for Process Systems**
 - Errors in tag numbers for vibration probes and transmitters updated
- **SS 40 05 23a Control Valve Purchase Specifications**
 - Valve specs replaced, deleted solenoids from midpt temp control valves; updated oxygen cleaning requirements for consistency
- **Drawings Starting at E102.3**
 - Solenoid valves for midpt temp control valves deleted
- **Drawing E502**
 - Bill of materials is reprinted to improve legibility. No changes from Addendum 1.

BIDDER'S QUESTIONS

EMAIL questions to
jlaw@ebmud.com



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