

RECOMMENDED PROCEDURE TO ENTER ACETYLENE GENERATOR TANK FOR INSPECTION AND CLEANING

This procedure is intended to provide general “confined space entry” instructions for entering the generator. Follow the applicable steps, as well as any referenced procedures.

- 1. Obtain a Confined Space Entry/Hazardous Work permit from qualified personnel. Post the permit and a Confined Space sign at the generator during the project.
- 2. Must have an authorized attendee throughout entry.
- 3. Must use only non-sparking explosion-proof equipment.
- 4. Follow the Rexarc procedure for cleaning the generator tank. Even if cleaning is not performed, the procedures will help prepare the generator for entry.
- 5. Empty carbide from hoppers.
- 6. Purge the entire generator with nitrogen. This will be performed by purging through the hoppers for an extended period of time.
- 7. Remove tops of generator.
- 8. Drain all water from generator.
- 9. Lock and tag out power to hopper feed motors (see Generator Lockout/Tagout LO/TO Procedure).
- 10. Lock and tag out power to agitator motor. (Generator LO/TO Procedure)
- 11. Lock and tag out drain back line valves.
- 12. Remove all cylinders from drain back and fill manifolds.
- 13. Lock and tag out nitrogen supply.
- 14. Place duct from explosion-proof blower into top of generator.
- 15. Turn on explosion-proof blower.
- 16. Allow blower to blow air through generator (for at least 8 hours).
- 17. Disconnect agitator motor from gearbox.
- 18. Remove manhole from side of generator.
- 19. Reverse blower fan direction to pull air into the manhole, through the generator, and out the blower end. Keep blower running throughout entire entry.
- 20. Test air inside generator with gas detector (run detector continuously and record readings every 15 minutes). Air readings must read as follows for entry to be permissible:
 - >19.5 and < 23 for oxygen reading
 - <10% for LEL reading
 - <10% for hydrogen sulfide reading
- 21. Note – Ensure that no sources of carbon monoxide are near the generator. For example, no internal combustion motors, etc.
- 22. Note – A calibration check and/or calibration of the gas detector must be performed immediately prior to use.
- 23. Place lanyard and harness on qualified personnel.
- 24. Qualified personnel may carefully enter generator (with at least one person manning lanyard), and perform task.
- 25. Qualified personnel exit generator.
- 26. Replace manhole on side of generator.
- 27. Connect agitator motor to gearbox.
- 28. Remove lock and tag from nitrogen.
- 29. Remove lock and tag from power to agitator motor.
- 30. Remove lock and tag from power to hopper feeds.
- 31. Remove all other locks in accordance with LO/TO procedure.
- 32. Remove blower duct from top.
- 33. Replace tops.
- 34. Fill generator with water.
- 35. Charge hoppers with carbide.
- 36. Start generator.
- 37. Be sure to follow the Rexarc procedures for placing the generator into service.