

NES / WES Energy Systems

TRAINING PROTOCOL

Purpose: To provide an outline of the material and training topics to be covered during operational and maintenance training of operator personnel.

DAY 1

1. Review of submittal book information
- 1.1 Review all data sheets, catalog cuts, drawings and specifications in the submittal book (1 hour)
- 1.2 Review and instruction on using GEJ and associated equipment electrical wiring diagrams (2 hours)
- 1.3 Review of the GEJ P&ID drawing and trace out system (1 hour)
- 1.4 Review of radiator components
 - 1.41 Review of Radiator Maintenance Manual, (0.5 hours)
 - 1.42 Review of control system, drawings (0.5 hours)
 - 1.43 Review of changing set points and parameters on Watlow temperature controller (0.5 hours)
- 1.5 Review of Technical Parameters and Controls
 - 1.5.1 Review of *DiANE XT* Parameters (1.5 hours)
 - 1.5.2 Review of Radiator and Fan Control Panel Parameters (0.5 hours)

DAY 2

2. Review of GEJ Maintenance Manual
- 2.1 Review of Work Orders and Work Order Schedule (1 hour)
- 2.2 Starting and stopping of the equipment (Normal Operating Conditions) (1 hour)
- 2.3 Troubleshooting no start and hard start conditions (1 hour)
- 2.4 Manual vs Automatic Start Processes (0.5 hour)
- 2.5 Practical Application Review of Work Orders
 - 2.5.1 Valve lash, recession measurement, and recording of data in the log book. (3.5 hours)
 - 2.5.2 Ignition coil testing, spark plug gapping, cleaning, and recording of data in the log book. (2 hours)
 - 2.5.3 Lube oil sampling, oil changing, changing of oil filters, (2 hours)
 - 2.5.4 Gas and air filter changing (1 hours)
 - 2.5.5 Battery and battery charger maintenance (0.5 hour)
 - 2.5.6 Cooling system inspections, maintenance, sampling (0.5 hour)

DAY 3

3. Review of GE parts manual
- 3.1 How to order parts (0.5 hour)
- 3.2 Parts in Electrical Wiring Drawings (0.5 hour)
- 3.3 Walk through of equipment to identify parts on the engine and scope of supply (1 hour)
4. Review of Description Book
- 4.1 Review of Technical Specification of Control (1 hour)
- 4.2 Review *Diane XT* Literature (1 hour)
- 4.3 Review of Alarms and Messages, Troubleshooting Guide (1 hour)
- 4.4 Troubleshooting (2 hours)
- 4.5 Review of Engine Diagrams (1 hour)
- 4.6 Review of GE Technical Instructions (1 hour)

DAY 4

6. Practical Review of Wiring Schematics (2 hours)
7. Practical Training on *Diane XT* (2 hours)
8. Summation, question period (4 hours)