Array Maintenance Syllabus

Time: 8 hours

Maximum Class Size: 12

Prerequisites: None

Course Description: The Array Maintenance class is part of the Facility Systems & Maintenance Worker Program. In this course, the participant will learn to identify the common maintenance tasks for arrays and module inspection, shading control, debris removal, and array mount inspection. A portion of the day will be spent with hands-on inspection and cleaning of modules and arrays. The participant will also become familiar with the proper completion of a Maintenance Task Report and Monthly Inspection Report. These skills will allow the participant to acquire the skills necessary to become a valued member of a facility maintenance team.

Goals/Objectives/Student Learning Outcomes:

- Identify all required PPE for scope of work
- Identify and describe maintenance tasks for arrays
- Describe the function of maintenance plans and maintenance logs
- Describe the steps involved in troubleshooting PV systems
- Visually inspect a photovoltaics (P.V.) system for problems
- Recognize potential problems in a P.V. system
- Fill out a Monthly Inspection Report
- Perform routine scheduled maintenance on a P.V. system
- Fill out a Maintenance Task Report
- Test a P.V. module and array output

Standards

OSHA 29 CFR:

- Subpart C: 1926.20, 21, 23, 25 General Safety & Health Provisions
- Subpart D: 1926.50-51 Occupational Health & Environmental Control
- Subpart E: 1926.95 & 1926.100 Personal Protective Equipment
- Subpart H: 1926.254 Materials Handling
- Subpart K: 1926.416, 1926.417, 1926.404 (b)(4) Electrical
Array Maintenance Syllabus

Classroom Rules and Procedures

• All classes begin at 6:30 am and end at 3:00 pm
• Upon entering classroom, all participants must sign in and be seated by 6:30 am
• Class will consist of a combination of lecture, video, demonstration, coached group exercises, individual exercises and assessment.
• Students are required to report to class ready to work and maintain the provided PPE

Textbooks/Readings/Materials

• Photovoltaics Systems text book (Chapter 14)
• Unirac IIOM Handout
• Monthly Inspection Report
• Maintenance Task Report
• Maintenance Plan sheet
• Green Jobs Handout

Tools/Equipment/Other Materials

• Module Cleaning Kit
• Torque Gauge/wrenches
• Voltmeters
• IGM 3 x 3 x 20 PDF
• Tool Box (Array Maintenance)

Personal Protective Equipment

• 12 pairs of gloves
• 12 pairs of Safety Glasses
• 20 pairs of Ear plugs
• 12 hard hats

Course Requirements

In order to receive credit for the course, participants must:

• Be present for full eight hours
• Participate in all classroom exercises
Array Maintenance Syllabus

• Pass a written exam
• Pass a hands-on exam

Course Policies

• Participants must be on-time and ready to work.
• Participants must return from breaks on-time.
• Participants must participate in each exercise and assignment
• Participants who are on “light duty” are not allowed to take this course due to the physically demanding requirements.

Assessment and Grading

Participants will be assessed on the following:

• All written exams must be passed with a score of 80% or above.
• All hands-on exercises are graded on performance and participation. They are pass/fail and must be passed with a score of 80% or above.

Safety

Failure to maintain and use PPE may result in dismissal from the course.