

# Lead Electrical Technician Knowledge Assessment - Hydro (LETKA-H)

**Preparation Guide** 



# Lead Electrical Technical Knowledge Assessment – Hydro (LETKA-H)

#### **OVERVIEW**

Pacific Gas and Electric Company believes it is critical that employees have the lead skills and abilities necessary to succeed in lead jobs across the company. The Lead Electrical Technical Knowledge Assessment – Hydro (LETKA-H) allows PG&E to make an initial assessment of your skills and abilities as related to lead occupations. Because the LETKA-H is standardized, it ensures that everyone who wants to be considered for a lead position receives a fair and objective opportunity. This test has been professionally validated to ensure job-relatedness. The LETKA-H is a multiple choice test that contains questions assessing your knowledge in a wide range of subject matter related to processes, procedures and standards.

The LETKA-H is an online, proctored test that has 60 multiple choice questions measuring knowledge of processes, procedures and standards as related to the Lead Electrical Technician job in Hydro. Below are these references that can be used to help test takers prepare for the test:

#### A. Maintenance and Construction Process, Procedures and Standards

- Protective Equipment Standard Test Procedures (TD-3323M)
- Protection System Maintenance and Testing Program (PSMP)
- Protective Equipment Maintenance Requirements (TD-3323S)
- Equipment Test Forms, Reports, and Error Prevention Tools
- Hydro Bulletin (PG-1617S-01)
- Installation and Commissioning Requirements for Protection, Automation, Communication, and Control Test Reports and Acceptance Test Records (TD-3340P-10 and TD-3323S)
- Automatic Testing and Documentation process using RTS
- Wiring Practices and Work Methods for Substation Relay and Control Panels
- Testing Requirements following a generator trip (PG-1613S)



### **B. Operational Process, Procedures and Standards**

- Electric Operating Instructions (TD-1400P-02)
- Hydro Generation Hazardous Energy Control LOTO (PG-1404P-01 and PG-1404P-02)

#### C. Work Management Process, Procedures and Standards

- Hydro SAP Work Management System (WMS) Process
- Hydro and Protection New Equipment Form and Asset Registry Records Process
- Protection system types and trigger intervals (TD-3323S Attachment
  2)
- Maintenance Documentation Requirements for Protection, Automation, Communication, and Control Test Reports
- Installation and Commissioning Requirements for Protection, Automation, Communication, and Control Test Reports and Acceptance Test Records (TD-3323S)
- Outline of Installation Test Procedures for Substations (PESTP Sec. 0.2)
- Installation and Removal of Temporary Relays (PESTP Sec. 0.2.1)
- Relay and Protection Scheme Release Procedures (TD-3340P-10)
- Defective Protection Equipment Report (74-751)
- Hydro Generation Design Changes and As-built Drawings (PG-1902S)

## **D. Compliance Requirements**

- Protective Equipment Maintenance Requirements (TD-3323S)
- NERC Reliability Standards Compliance Program (TD-1010S)
- PG&E CIP-005: Electronic Security of Critical Cyber Assets (TD-1205S)
- PG&E CIP-006: Physical Security of Critical Cyber Assets (TD-1206S)
- Security Measures for Power Generation Facilities (PG-S104)
- WECC Record Keeping (PG-1617S-01)
- Setting and Testing requirements...uploading data (PG-1617S-01)



#### **E. Hydro Equipment**

- Excitation
- Generator components
- Protective relays
- Instrumentation and related devices
- Controls
- PLCs
- Rotating equipment
- Vibration
- Governor systems
- High voltage DC testing of generators (PG-2621P-01)
- Partial Discharge Analyzer Test (PG-2675P-01)
- Governor and Relief Valve Timing Adjustments Hydro (PG-2334P-01)
- Turbine Generator Startup Following Major Overhaul (PG-2323P-01)
- Testing Generator Main Transformer Banks after Relay (PG-2688S)

#### DO YOUR BEST

We hope you find this information helpful. Make sure that when you are scheduled to take the test you are physically and mentally alert and ready to do your best, or you should reschedule your test session.