



Implementation of Ensō- LIMS at **NABL certified** Indian Power Lab

CASE STUDY

Websites:

Enable IT Company Website: www.enitsol.com
Ensō-LIMS Product Website: www.ensolims.com

Email:

info@enitsol.com
sales@enitsol.com

Address:

Enable IT Solutions Pvt. Ltd.
Kamalkunj, 63, Navnirman Society,
Ring Road, Pratap Nagar
Nagpur – 440022

Phone:

+ 91-712-2242991

© Copyright 2020 by Enable IT Solutions Pvt. Ltd.
All Rights Reserved.

1. Project Details

Nabha Power Limited (NPL), was established as special purpose vehicle (SPV) by erstwhile Punjab State Electricity Board (PSEB) to develop the Rajpura Thermal Power Project at a site near village Nalash, Distt. Patiala, Punjab.

Further, NPL was also transferred to L&T Power Development Limited as its wholly owned subsidiary on 18th January, 2010. NPL has signed MOU with Govt. of Punjab for enhancing the capacity of the present plant by establishing an expansion unit of 1x700 MW adjacent to the current plant location.

Nabha Power Limited is a NABL accredited Laboratory following ISO/IEC 17025 regulatory compliance. NPL was looking for Laboratory Information System and enquired for the same in the year 2017. After some evaluation process and studying the requirement of NPL to established a Laboratory information management system for Coal testing operation. Our team suggested a fully configurable and scalable system meeting NPL objectives i.e. real time Sample Management, Management reporting for Rake & Feeder operations and automating Testing processes by Instrument Integration.

2. Scope of Work

NPL wants to increase the operational efficiency of the laboratory by implementing an automating Laboratory information management system for its Coal operation in Thermal power plant managing reporting of its Rake and Feeder operations to streamlining the workflow. ENSOLIMS covers the journey of a sample from its induction into a laboratory till the end of its life cycle, including the stages of Sample Storage, Testing, Reporting and Archiving. As a sample is introduced into a lab, the LIMS operation starts by accessioning the sample on to the system and assigning it with a particular identification number. As and when the samples move through the laboratory, the related information can then be updated in ENSOLIMS system to maintain the audit trail.

- To develop fully automate Testing process by Instrument Integration Module.
- To Improve quality control laboratory workflows
- To develop different type of customized MIS reports for the management processes.
- To improve the Sample management process from Raw Material Testing.
- To integrate NPL Rake & Feeding operational modules with the LIMS software
- To develop complete Chain of Custody of sample through Bar-coding.

3. Challenges

NPL wanted a [Laboratory Information Management System](#) (LIMS) that can meet the following requirements:

- To integrate and monitor Rake and Feeding process on real time basis.
- To carryout monitoring of DM Plant operation.
- To integrate Analog and Digital instrument with LIMS software
- Supporting services for various departments with regard to sampling, analysis and reporting.
- To carry out Research and Development project studies.
- Huge amount of technical data from multiple project location to be acquired and processed.
- Maintaining a complete Chain of Custody (CoC) of samples, right from the samples registration to their final disposal, ensuring complete sample traceability at all times.
- Work assignment and tracking was extremely difficult resulting in effort and cost over-runs
- Manual data acquisition and calculations led to human errors in reports.

4. Solution

Assessment of business process led to the idea of web-based integrated system that will cover:

- Sample Management
- Barcode generation
- Instrument Integration
- Task management
- Test data processing

5. Outcome Benefits

After implementation, ENSOLIMS not only helps Nabha Power Limited in efficaciously tracking a large number of samples from its operational processes in real-time across multi-sites but is also a cost-effective and scalable solution.

ENSOLIMS product helps them in managing various studies, tracking and managing samples when they are in are shipment, in the laboratory, or in storage, generating 2D-barcodes and sample labels, automating testing process through instrument integration, configuring electronic signatures for the desired laboratory activities and management, maintaining an automated audit trail to meet the auditing requirements, and generating desired customized reports of Rake and Feeder operations for the management. Hence, as desired Nabha Power Limited has received a fully configurable and scalable system meeting regulatory compliance of **ISO/IEC 17025**.



Enable IT Solution Pvt Ltd - LIMS application is best suited to our requirements and has enhanced productivity, consistency and security in our Quality department. The support at ENSOLIMS is excellent and I am very satisfied with their services”

Laboratory Manager, NBL