

Certificate No : 2026-TRP-OJT-PSA-0010
Date : August 24th , 2026



CERTIFICATE OF ACCOMPLISHMENT

This certificate is granted to

FARHAN PRATAMA PUTRA, S.T

ID NUMBER : TRP-OJT-PSA-0010

For successfully completing 30 days online On The Job Training (OJT)

PIPE STRESS ANALYSIS

And has completed the Final Project with the title

Piping Stress Analysis for Suction Pump 04-P-5202-A/B

Mentor:

IR. BENNY SETIAWAN

Principal Piping Engineer



Validity Check

Heru Prasadja, ST
CEO

PIPE STRESS ANALYSIS

BASIC THEORY

- Scope of Work of Pipe Stress Analysis Engineer
- Project Technical Specifications
- Pipe Stress Isomeric Drawing
- Critical Line List Criteria
- Pipe Stress Overview
- Introduction to Pipe Stress Design
- Code/Standard
- Pipe Stress Analysis Load Cases
- Wind Load
- Earthquake Load

PIPE COMPONENT

Node, Element, Bend, Tee, Reducer, Flange, Valve, Restrain. Wind Load, Earthquake, Spring Support, Expansion Joint, Etc

PIPE DESIGN LOAD CASE

- Hydrotest
- Operating
- Sustained
- Occasional
- Expansion (Thermal)
- Operating + Imposed Seismic Load Case
- Operating + Imposed Wind Load Case
- Operating + Reaction Load Case
- Seismic Load Combination
- Wind Load Combination
- Reaction Force

POST PROCESSING ANALYSIS

- Local Stress at Nozzle of Vessel According to WRC 107/297
- Nozzle Load of Heat Exchanger According to API 661
- Nozzle Load of Pump According to API 610
- Flange Leakage Check
- Pipe Support Type and Load
- Expansion Loop
- Piping maximum displacement Sustain Case
- Piping maximum stresses requirements for ASME B31.3

STUDY CASES

- Pipe Stress Analysis between Equipment Pipe (Pressure Vessel)
- Pipe Stress Analysis for Suction Pump P01-A/B
- Pipe Stress Analysis Report Preparation

FINAL PROJECT : Piping Stress Analysis for Suction Pump 04-P-5202-A/B