



Summary of Qualifications

A professional engineer with 28 years of petrochemical experience, Kim brings a strong mechanical background to the HFAC team. Her areas of focus, with particular emphasis in the HF Alkylation unit, included maintenance, repair, construction, inspection, turnaround planning/execution and compliance assessments. In addition, Kim has extensive experience in bolted joint/flange make-up and analysis, temporary repairs, Alky material specifications, management of change (MOC)/pre-start-up safety reviews (PSSR), unit and project Process Hazard Analysis (PHA), and incident investigations.

While working for Phillips 66, Kim participated in API RP 751 assessments, quantitative risk assessments (QRA), PHA's for process units, refinery turnarounds, unit turnarounds, as well as managing hundreds of MOCs & PSSRs. She assisted in the development and maintenance of procedures for HF Alkylation unit mechanical integrity management, refinery bolted & flanged joint management, flange inspection & management, critical valve inspection & management, and temporary repairs.

Career Experience

September 2022 to present – HF Alkylation Consultants, Senior Consultant

Supporting refineries worldwide with a focus on mechanical integrity, maintenance, & inspection disciplines.

May 2004 to August 2022 – Area Mechanical Engineer – Phillips 66 Billings, MT

Provided day-to-day mechanical engineering support for the Operation and Maintenance of 9 process units including: HF Alkylation, Butamer/Feed Prep, PB Merox, Amine treatment, HDS Reactor & Fractionation, Sat Gas, and Catalytic Reformer (semi-regen)

- In this capacity, provided engineering expertise for the following activities.
 - Planned and safely executed 6 major Refinery total TAs as well as 10 or more smaller unit TAs. Provided peer assistance to the Phillips 66 Humber Refinery Alkylation unit TA.
 - Planned and safely executed major fired heater repairs during Refinery total TAs (retube, re-skin, replace major components & supports)
 - Planned and safely executed several multi-year maintenance projects to ensure Refinery cooling tower on-going structural integrity and efficiency.
 - Planned and safely executed Refinery Boiler inspection and repairs (2013 through 2018).
 - Participated in project development, scoping, PHAs, engineering, procurement, and safe execution for numerous small and large capital projects within my unit areas.
 - Led 4 of the 6 API 751 audits at the Billings Refinery. Provided peer assistance on a 751 audit at the P66 Sweeny Refinery.
 - Participated in 4 Alky unit QRA's, providing technical information for the assessment.
 - Participated in unit PHA's as the mechanical engineering Subject Matter Expert (SME) for 3 rounds of PHAs.
 - Additional site assignments/responsibilities:
 - P66 HF Alkylation Required Standard owner.
 - Bolted joint/flange make-up SME.
 - P66 Refinery Engineering Practices owner/SME for pipe/valves/fittings section
 - Development and monitoring of Integrity Operating Windows (Reliability Operating Limits - ROLs) for assigned process units with particular emphasis on the HF Alky ROLs.
 - Mechanical Engineering group representative (13+ years) on the site Process Safety Management team. Considered an expert in MOC/PSSR application and execution.
 - Conducted and participated in incident investigations as assigned by Refinery Leadership. Trained in the Cause Map/5-Why methodology.

August 2001 to April 2004 – Design Engineer – Phillips 66 Borger, TX

- Provided day-to-day support for Operations and Maintenance on maintenance and capital projects, TA planning and execution, PHAs, MOCs.
 - 2003 to 2004 – FCC and HF Alkylation plant
 - 2001 to 2003 – Natural Gas Liquid plant

December 1994 to August 2001 – Plant Production Services – Celanese Chemicals Pampa, TX

- Provided day-to-day engineering support for Operations and Maintenance on maintenance and capital projects, TA planning and Execution, PHAs, MOCs.
 - 2000 to 2001 Utilities Engineer – Coal Fired Boilers
 - 1994 to 2000 – Project Engineer – General Plant/Area Support

Education

June 2002 – Professional Engineer certification, Texas

December 1994 – Graduated Magna Cum Laude, Bachelor of Science in Mechanical Engineering, Texas Tech University, Lubbock TX