

Jose M. Chavez

PROFESSIONAL HISTORY:

Risk Management Professionals, Inc.;
Irvine, California; Project Engineer
January 2021-Present

EDUCATION:

Bachelor of Science, Chemical
Engineering, University of
California Riverside.

PROFESSIONAL AFFILIATIONS:

Society of Hispanic Professional
Engineers (SHPE)
American Chemical Society (ACS)

Mr. Jose Chavez graduated from the University of California Riverside with a Bachelor of Science degree in Chemical



Engineering. He currently provides technical support as a Project Engineer for Risk Management Professionals.

Through his experience and education, Mr. Chavez has developed technical writing, problem solving, and analytical skills. Since joining Risk Management Professionals, Mr. Chavez has been immersed in multiple aspects of the United States Environmental Protection Agency (US EPA) Risk Management Plan

(RMP), Occupational Safety and Health Administration (OSHA) Process Safety Management (PSM) Program, and California Accidental Release Prevention (CalARP) Program development, including the following.

- Process Hazard Analyses (PHAs) including Hazard & Operability (HAZOP), Layer of Protection Analysis (LOPA), What-if/Checklist, and Management of Change (MOC) PHAs
- Risk Management Plan (RMP) / Process Safety Management (PSM) Program Development
- California Accidental Release Prevention (CalARP) programs
- RMP/PSM/CalARP Compliance Audits
- Toxic and Flammable Gas and Liquid Dispersion Modeling

While Mr. Chavez has experience in diverse product lines, all completed projects have used high end qualitative and/or quantitative risk analysis techniques for decision-making. He has been involved in a variety of engineering projects across several industries, including the following fields.

- Petroleum (Production, Refining, Storage)
- LPG Transportation and Storage
- Renewable Fuels Production and Material Recycle Systems
- Power Generation Systems
- Water Treatment and Distribution Systems
- Metal Plating and Finishing

PROJECT EXPERIENCE

Process Hazard Analysis (PHA)

- *Sulfur Recovery Units, Garyville, Louisiana* – Provided technical scribe support for a remote PHA and an on-site PHA for two (2) units over the course of three (3) weeks each. The PHA used HAZOP and LOPA methodologies and utilized Microsoft Teams and GoToMeeting for remote collaboration. Preparation included separation and delineation of piping and instrumentation diagrams (P&IDs) / process flow diagrams (PFDs) into nodes and pre-causing various deviations to be reviewed during session. The study focused on deviations from normal operation for the removal of H₂S from upstream process gas through amine absorbers, sulfur condensers, and the Claus Process. One (1) unit is capable of producing up to 984,000 pounds of sulfur per day.
- *Propane Storage and Transfer System, Fairfield, California* – Facilitated the PHA using HAZOP and What-if/Checklist methodologies. The study focused on deviations from normal operation for the unloading and loading of propane between rail cars, storage tanks, and trucks.
- *Aerosol Recycling Unit, Romulus, Michigan* – Provided technical scribe support for the HAZOP study. The PHA utilized Microsoft Teams for remote collaboration and focused on deviations from normal operation during recovery/recycling/storage of aerosols and their containers.
- *Alkyl Unit, Saint Paul Park, Minnesota* – Provided technical scribe support for the MOC PHA, which utilized Microsoft Teams for remote collaboration. The study focused on deviations from normal operation that arose from the installation of multiple EIVs.
- *Water Treatment Unit, Martinez, California* – Provided technical scribe support for the PHA over the course of a week, which focused on deviations from normal operation during the treatment of water supplied to the refinery.
- *Flare Unit, Martinez, California* – Provided technical scribe support for the five-year PHA over the course of a week and focused on flare design and potential flaring events.
- *Hydrodeoxygenation Unit, Martinez, California* – Provided technical scribe support for the five-year PHA and focused on deviations from normal operation of during the deoxygenation stage of biodiesel production at a rate of 17,000 barrels per day.
- *Partial Recycle Isomerization Unit, Kenai, Alaska* – Provided technical scribe support for the five-year PHA, which focused on deviations from normal operation of isomerate production.

CalARP/RMP/PSM Program Development and Revalidation

- *Propane Storage and Transfer System, Anderson, California* – Full program development including all required elements from EPA (RMP), PSM (Cal/OSHA), and the Unified Program Agency (CalARP).

Compliance Audits

- *Gas Processing Unit, Lomita, California* – Completed a Compliance Audit for the facility unit that receives natural gas and process field gas with a Maximum Intended Inventory of 190,000 pounds. The Compliance Audit satisfied all requirements of EPA, PSM, and CalARP.

Offsite Consequence Analysis/Hazard Assessment

- *Metal Finishing Facility, Fountain Valley, California*
- *Propane Storage and Transfer System, Anderson, California*
- *Propane Storage and Transfer System, Fairfield, California*
- *Waste to Energy Facility, Spokane, Washington*

CLIENT LIST

The following is a partial list of clients that Mr. Chavez has managed and/or provided engineering support:

Oil and Gas

- Marathon Petroleum Company
- United Pacific Energy
- World Energy
- Signal Hill Petroleum
- HollyFrontier Corporation
- Newport Butane

Energy

- San Diego Gas & Electric

Metal Plating

- Spokane Waste-to-Energy
- Omni Metal Finishing

Municipalities and Water Treatment

- City of El Segundo