

Bailey Klepacki

PROFESSIONAL HISTORY:

*Risk Management Professionals, Inc.;
Irvine, California*

- *Project Engineer; June 2020 - Present*
- *Engineering Intern; September 2019 – June 2020*
- *Marketing Intern; June – September 2019*

EDUCATION:

*Bachelor of Science, Chemical
Engineering, University of
California, Irvine*

PROFESSIONAL AFFILIATIONS:

*American Institute of Chemical
Engineers (AIChE)*

Ms. Bailey Klepacki graduated from the University of California, Irvine with a Bachelor of Science degree in Chemical Engineering. Since joining Risk Management Professionals, Ms. Klepacki has been gaining experience in multiple aspects of 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. Ms. Klepacki has been involved with:



- Process Hazard Analysis (PHA) scribing support
- Risk Management Plans (RMP) / Process Safety Management (PSM) Programs
- California Accidental Release Prevention (CalARP) Program
- Toxic and Flammable Gas and Liquid Dispersion Modeling
- Regulatory Compliance Audits and Support
- Hazardous Materials Inventory Calculations

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

- Gas Processing and Transport
- Biomass Power Generation
- Selective Catalytic Reduction Systems (SCRs)
- Ammonia Production
- Metal Smelting
- Fertilizer Manufacturing
- Water Treatment and Distribution Systems
- Ammonia Refrigeration Systems

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In addition to her work with Clients, Ms. Klepacki has contributed to the marketing department by handling the advertising of “Risk Management Professional’s Back To Basics: Foundation Setting for Successful Regulatory Compliance” summer workshop as well as upkeeping several of her colleague’s clientele communications. Ms. Klepacki has also been exposed to the field of Hazard and Risk Analysis by assisting in a Risk and Resilience Assessment that involved scribing and navigating the Vulnerability Self-Assessment Tool (VSAT) 2.0 tool. When it comes to increasing Risk Management Professional’s project opportunities, Ms. Klepacki is no stranger to putting together cohesive cost proposals in accordance with various Request for Proposals (RFP’s) from clients.

PROJECT EXPERIENCE

Process Hazard Analyses

Ms. Klepacki has been the technical scribe for a Hazard Review (HR), observing the use of HAZOP and What-If/Checklist methodologies, for a Selective Catalytic Reduction System. The following bullet point describes the project scope in which she was involved in.

- *Power Plant Selective Catalytic Reduction (SCR) System, Colton, CA* – Provided HR scribing support using the HAZOP and What-if/Checklist methodology for an operating power plant utilizing ammonia injection, in the presence of a catalyst, to significantly decrease NOx emissions. The process hazard analysis included an evaluation of a Selective Catalytic Reduction System involving utility systems, such as aqueous ammonia unloading, storage, pumps, injection skid, recirculation line, and atomizing air. As part of the PHA, the Team reviewed relevant MOCs, previous incidents, external events, human factors, and facility siting. The PHA resulted in several recommendations and observations, which were made to improve the design and operability of the plant.

Compliance Audits

Ms. Klepacki has assisted with the completion of two CalARP/RMP/PSM Compliance Audits, which included a facility walkdown and familiarization with the regulated covered process, reviewing Prevention Program documentation to identify deficiencies that would result in citations from the applicable regulatory agencies, developing a line item report that lists the specific deficiencies, and meeting with facility personnel in order to identify any other needs or services they may require. The below list contains projects for whom Ms. Klepacki has performed Compliance Audits:

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- *Chlorine Injection System, Lancaster, CA* – Performed a Compliance Audit for a duration of eight (8) hours to evaluate the CalARP/RMP/PSM Program 2 for several water disinfection well sites, followed by a P&ID walkdown. A manufacturer’s manual on a newly implemented safety valve was reviewed to evaluate Process Safety Information compliance, such as, relief valve design basis calculations, design pressure and temperature data, and Piping and Instrumentation Diagrams (P&IDs). Extensive personnel interviews were performed to verify the implementation of remaining CalARP/RMP/PSM elements, such as Training, Operating Procedures, Maintenance, Hazard Assessment, Submittal, Hazard Review, Compliance Audits, Incident Investigation, and Emergency Planning and Response.
- *Water Treatment Plant, Poway, CA* – Provided remote Compliance Audit support for a CalARP Program Level 2 ammonia injection system. Previous compliance audit violations were reviewed, and an additional list of program documentation suggestions were provided.

CalARP/RMP/PSM Program Development and Updates

Ms. Klepacki has developed many California Accidental Release Prevention (CalARP) Programs, RMP, and PSM Programs for a wide spectrum of industries and processes. As part of these efforts, she has conducted Offsite Consequence Analyses (OCA), external events analyses, dispersion modeling, recommendations review, program development, California Accidental Release Prevention (CalARP), United States Environmental Protection Agency (US EPA) and Administering Agency (AA) submittals, and review. Ms. Klepacki has been working closely with regulators to help her clients stay ahead of regulatory requirement amendments.

- *Power Plant Selective Catalytic Reduction (SCR) System, Colton, CA* - Provided CalARP Program Level 2 support including development of Hazard Assessment/Offsite Consequence Analysis and CalARP Submittal.
- *Fertilizer Manufacturing Facility, Gardena, CA* – Provided CalARP/RMP Program 2 support including development of Hazard Assessment/Offsite Consequence Analysis and Process Safety Information.
- *Water Treatment Plant, Westlake Village, CA* – Provided CalARP Program 1 support including development of Hazard Assessment/Offsite Consequence Analysis and CalARP Submittal.
- *Metal Smelting, Fremont, CA* – Provided CalARP Program 1 and 2 support including development of Hazard Assessment/Offsite Consequence Analysis.

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- *Ammonia Absorption System, San Diego, CA* – Provided CalARP Program 2 and CalARP/RMP/PSM Program 2 support including corrections of CalARP Submittal and resubmission of EPA RMP Submittal.
- *Ammonia Injection Facility, El Cajon, CA* – Provided CalARP Program 1 support including development of Hazard Assessment/Offsite Consequence Analysis and CalARP Submittal.
- *Metal Manufacturing Facility, Prince George, VA* – Provided CalARP/RMP/PSM Program 3 support for flammable substances, including development of Hazard Assessment/Offsite Consequence Analysis.

CLIENT LIST

The following is a partial list of clients that Ms. Klepacki has managed and/or provided technical support.

Municipalities and Water Treatment

- City of Poway
- Las Virgenes Municipal Water District
- Los Angeles County Department of Public Works

Manufacturing/Chemical Processing

- Global Plating, Inc.
- NCI Group, Inc.
- Grow More, Inc
- Pregis

Power Plants

- DTE Energy Services – Woodland Biomass Power, LLC
- Agua Mansa Power Plant
- Southwest Generation
- Wellhead – El Cajon Energy Center