HF Alkylation CONSULTANTS

JAMES B. YOUNG

Senior Consultant

Summary of Qualifications

James, better known in the HF industry as “Jim”, has throughout his 30+ years gained a wealth of deep technical and process safety expertise in both HF and H2SO4 Alkylation. From his days at Whiting Refinery to his longstanding Principal Process Engineer roll within BP Refining, Jim brings this array of knowledge and skills to our team that can only be had through a distinguished career inside this dugout industry.

Career Experience

Nov 2019 to Present
HF Alkylation Consultants – Senior Consultant
Supporting HF Alky units with the following key services:

- API RP-751 Audits
- Safety and unit operability reviews
- Project scoping
- Unit site-specific training

Jan 2007 to Oct 2019
BP Refining & Logistics Technology –
Principal Process Engineer
Supported process safety in HF and H2SO4 alkylation through the following activities:

- Team Leader/Member of over 18 worldwide HF Safety Assessments at BP-operated or JV refineries
- Led H2SO4 alkylation process safety visits at BP-operated refineries
- Assisted in updating the BP internal process safety requirements documents for HF and H2SO4 alkylation
- Participated in/led section revisions for API RP 751
- Provided technical support and recommendations to BP's HF and H2SO4 alkylation communities, both in a short-term sense (e.g., problem solving) and in a long-term sense (e.g., capital projects).
- Created tools to that help increase the profitability of alkylation units (e.g., optimizers).
- Kept up to date with alternative alkylation technologies (e.g., ionic liquids alkylation, solid catalyst alkylation).
- Carried out process simulation studies on H2SO4 alkylation units and to a lesser extent on HF alkylation units

Jan 2006 to Dec 2006
Whiting Refinery – Senior Process Engineer
Key highlights include:

- Lead process engineer for the expansion of the Whiting alkylation unit from a summer capacity of 23-24 MBD to 30 MBD
- Multiple projects geared toward maxing out unit capacity during summer operations while lowering process safety risk.
- Lead process engineer in implementing final Consent Decree SO2 and NOx limits at FCU 500, and final Consent Decree SO2 limits at FCU 600

Jan 2004 to Dec 2005
Whiting Refinery –
Environmental Reporting Engineer for FCU’s
Key highlights include:

- How to operate the cat crackers in a more environmentally friendly manner regarding SO2, NOx, CO, and particulate matter (PM) emissions while being as cost effective as possible.
- Key deliverable: Work leading to the decision to use a combination of feed hydrotreating and SO2 reduction additives, NOT building a wet gas scrubber on FCU 500.
- Lead process engineer for the expansion of the alkylation unit at Whiting as well as the process safety compliance-based projects

University of Illinois at Urbana-Champaign
Ph.D/Chemical Engineering (Dec 1988)
The Ohio State University
M.S./Chemical Engineering (Dec 1983)
The Ohio State University
B.S./Chemical Engineering (June 1982)