

Sanjeev Saraf, Ph.D.  
 Senior Engineer,  
 Exponent, Houston  
 saraf@exponent.com  
 979-219-4313

## Engineering Safety and Risk Project Experience

Sanjeev Saraf, Ph.D.

Client Name	Process/ Project Name
<b>XL Insurance</b>	Hurricane risks to above ground storage tanks (ASTs)
<b>PG&amp;E</b>	Audit of maintenance activities for natural gas pipeline
<b>GS Caltex</b>	Facility siting study for existing refinery in Yeosu, South Korea
<b>GS E&amp;C</b>	QRA, Facility Siting Study for HOU#2 and HOU#3
<b>SKEC (for KNPC, Kuwait)</b>	HAZOP, SIL, QRA for FGT project (Feed Gas Compression, Dehydration, De-methanizer, De-ethanizer, De-propanizer, NGL recovery, Refrigerant system)
<b>Kuwait Oil Company (KOC)</b>	Risk Assessment for increasing the Handling of Crude by 100,000 BOPD at the Export Facilities Utilizing the Existing Tanks at North and South Tank Farms
<b>Toyo-Thai Engineering (for PTTPE, Rayong, Thailand)</b>	HAZOP for Regeneration Nitrogen Heater System, Vent Recovery Refrigeration System, Pelleting System, Cycle Gas Compressor, Nitrogen Compressor
<b>Daelim for KOC</b>	Quantitative Risk Assessment (QRA) for crude oil pipeline
<b>BP Whiting Refinery</b>	GAP/Risk Analysis for Polymer Grade Polypropylene and Refinery Grade Polypropylene facilities.
<b>Honeywell</b>	Corrosion laboratory risk assessment
<b>Daelim (for Petron Bataan Refinery, Philippines)</b>	HAZOP for BTX production unit – Sulfolane, Naphtha Hydrotreating Unit, CCR, BT fractionation unit, Mixed Xylene
<b>AT&amp;T</b>	FMEA on telecommunication batteries

Sanjeev Saraf, Ph.D.  
 Senior Engineer,  
 Exponent, Houston  
 saraf@exponent.com  
 979-219-4313

Client Name	Process/ Project Name
<b>GS Engineering &amp; Construction (for SOHAR Aromatics)</b>	HAZOP for Aromatics plant – Naptha Hydrotreater, Amine treatment & regeneration, HG hydrotreatment, Aromizing Unit Reactor, Catalyst Regeneration, Utilities
<b>Hyundai Engineering &amp; Construction (for KNPC)</b>	Safety Instrumented Level (SIL) verification study
<b>Angola LNG</b>	Design assurance – QRA/SIL/HAZOP and other safety studies
<b>Eastman Chemical, Eli Lilly, CPChem, Bayer</b>	Relief / flare analysis
<b>Solutia, Tyco Health-Care</b>	Reactivity hazard assessment
<b>DuPont</b>	Developing of corporate reactivity hazard evaluation protocol
<b>Federal Energy Regulatory Commission (FERC)</b>	LNG spill modeling to establish thermal radiation and flammable vapor exclusion zones at LNG facilities.
<b>Nova Scotia Department of Energy (DOE)</b>	Code of practice for LNG terminals
<b>BP</b>	Comprehensive review of LNG safety literature