

PROCESS SAFETY

PHA & Risk Assessment Services



Founded in 1974, Trinity Consultants helps organizations overcome complex, mission-critical challenges in EHS, engineering, and science through expertise in consulting, technology, training, and staffing. We support clients in geographies worldwide and across a broad range of sectors including industrial, energy, manufacturing, mining, life sciences, and commercial/institutional.

Our experts facilitate Process Hazard Analyses (PHAs) for many oil and gas processing technologies, as well as specialized chemical processes unique to our clients. The quality and comprehensiveness of each risk study drives many other aspects of an overall Process Safety Management (PSM) program – our facilitators perform every study with this in mind.

Since Provenance's inception, our team of dedicated facilitators has completed hundreds of PHAs, Layers of Protection Analysis (LOPA), and other hazard evaluation studies. Trinity and Provenance have worked with some of the largest companies in the petrochemical industry.

Additionally, we are well-versed in how to apply PHAs to the life-cycle stage of a plant – including design, startup, projects, initial unit PHAs, unit revalidations, and decommissioning studies.

PHA & Risk Assessment Services

- ▶ Preparatory Services
- ▶ Remote and Co-Located Facilitation and Scribing
- ▶ Reporting
- ▶ Training
- ▶ Revalidation Services
- ▶ Action Item Resolution
- ▶ QA/QC Services

PHA Techniques

- ▶ Hazard and Operability Studies (HAZOP)
- ▶ Layers of Protection Analysis (LOPA)
- ▶ Failure Mode and Effects Analysis (FMEA)
- ▶ What-If Studies
- ▶ Project PHAs
- ▶ QA/QC Services

Software Expertise

PHA Central™ by Provenance Consulting

PHA Central™ is a revolutionary software solution that allows companies to leverage the knowledge and value of their PHA data for better investment in risk mitigation and more consistent risk analysis.

The Provenance team has extensive experience in multiple commercial software applications including:

- ▶ PHA-Pro®
- ▶ PHAWorks®
- ▶ PHA Leader™
- ▶ Client-specific Spreadsheet and Custom Database Applications

Trinity/Provenance does not have a vested interest in any particular PHA software program, allowing us to help clients select the most appropriate and cost effective tool for their study.

Trinity Can Help

For more information about how Trinity and Provenance can help your organization, please contact Provenance Consulting at 806.273.5100 or 281.206.7079.

ISO 9001:2015 certified at our corporate office in Dallas, Texas