

# WHAT IS PSSAP®?



## PSSAP DEMONSTRATES A COMMITMENT TO A CULTURE OF SAFETY AND CONTINUOUS IMPROVEMENT.

PSSAP is an effective and efficient assessment program that looks beyond regulatory compliance to drive continuous improvement in process safety.

During a PSSAP assessment, a team of independent, third-party process safety experts spend about a week at a site, working with employees and leadership — across shifts — to fully evaluate the health of the existing process safety programs.



**Strengthens Process Safety Programs at Individual Facilities**



**Provides Shared Learnings Across Refining, Petrochemical and Chemical Sites**



**Repeat Assessments = Stronger Process Safety Programs**

### RECOMMENDED PRACTICE 751: SAFE OPERATION OF HYDROFLUORIC ACID ALKYLATION UNITS

- PSSAP assessments include a specific protocol to ensure hydrofluoric acid alkylation (HF) units are meeting the stringent requirements of API Recommended Practice 751, "Safe Operation of Hydrofluoric Acid Alkylation Units," 5th Edition, August 2021. RP 751 provides information to refiners on the safe operations of HF alkylation units; is used worldwide as the global standard on HF alkylation units; and, provides guidance, recommendations and proven industry practices on the safe operations of these refinery units.
- RP 751 also helps refineries perform Process Hazards Analyses per Occupational Safety and Health Administration (OSHA) regulations, is OSHA-recognized as the way to operate HF alkylation units, and has even been recommended to U.S. refiners by the Chemical Safety Board (CSB).
- Repeat assessments for API RP 751 allow sites to track their improvements to the requirements of the standard.



# ENHANCING PROCESS SAFETY IN THE REFINING, PETROCHEMICAL AND CHEMICAL INDUSTRIES

## PSSAP IS DIFFERENT FROM A TYPICAL AUDIT.

PSSAP promotes step changes in performance through the sharing of experiences and industry-wide practices, and serves as a mechanism to identify industry trends and patterns.

PSSAP looks beyond regulatory compliance and helps facilities benchmark their programs to help each site prevent a process safety event.



### CONTACT INFORMATION:

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**API's PROCESS SAFETY  
SITE ASSESSMENT  
PROGRAM (PSSAP®)**







# EXPERTS

The assessors are independent teams of process safety experts identified by API.

The assessors typically average about 40 years of industry experience, with at least 25 years being required to assess for PSSAP. Assessors have further specific expertise (operations, mechanical integrity, etc.), aligned with the PSSAP protocols.

The assessors work with each site to evaluate both the quality of written programs and the effectiveness of field implementation.




# REPORT

Following the assessment, the PSSAP team provides observations on what is working well, Opportunities for Improvement (OFI) and benchmarking data that can be used to enhance process safety and improve safety performance outcomes at a facility.

A final report, delivered about four weeks post assessment, includes an executive summary and a detailed write-up for each protocol assessed. Each protocol detail has observations, opportunities for improvement and good practices, as well as individual scores for each question in the protocol. Benchmarking information is also provided so a site can review how it compares with others that have undergone PSSAP assessments.

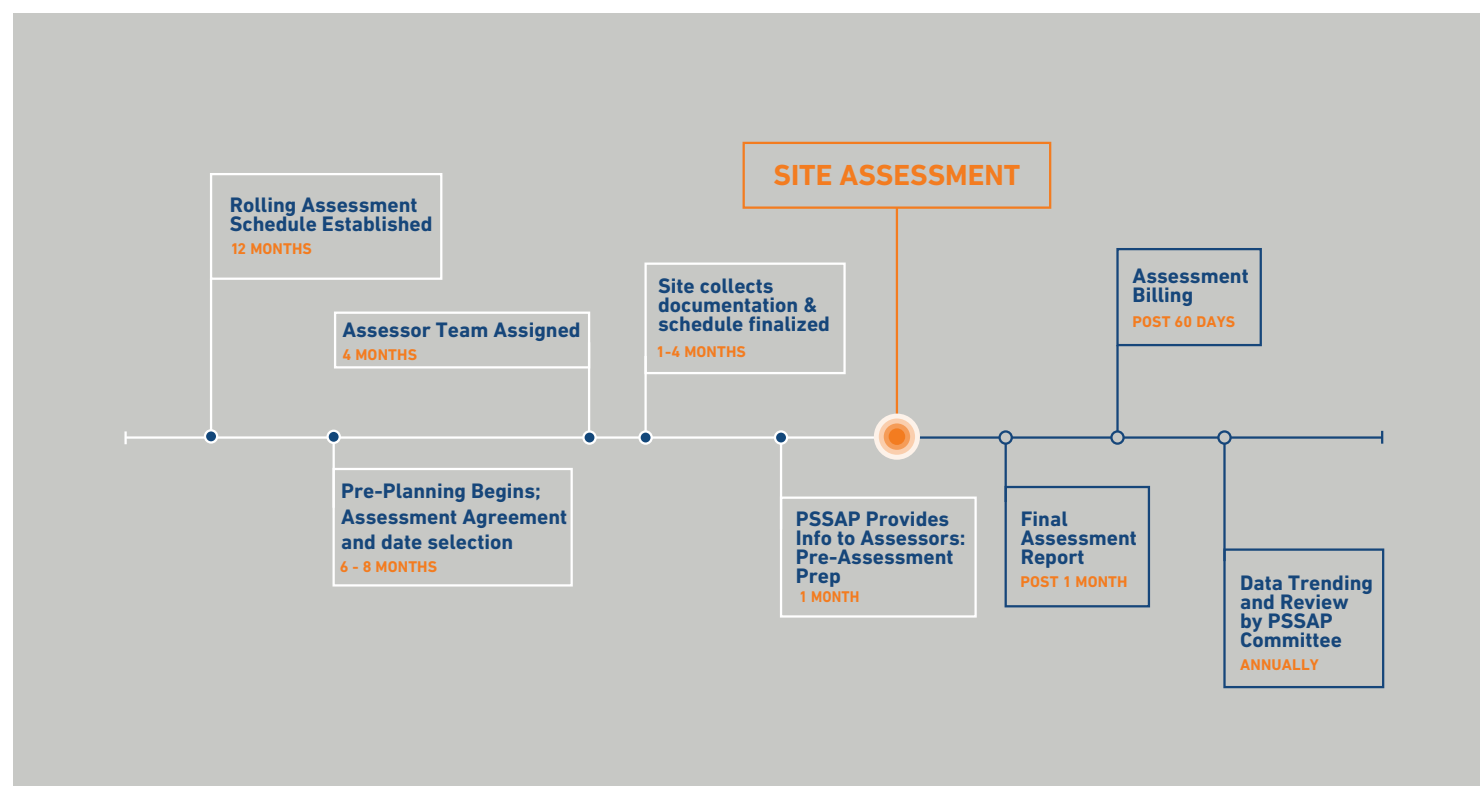
Benchmarking is one of the most valuable offerings of PSSAP. With the site's permission, protocol question scores are placed in a database without attribution to allow a site to compare its performance to the industry and identify opportunities for improvement. It also allows sites and the industry to measure its progress over time.




# PROCESS

PSSAP is an Effective and Efficient Process.

The entire process – from the establishment of a PSSAP schedule to the final assessment report – takes about 4 - 8 months, depending on how quickly the site provides information to PSSAP, prior to the commencement of the on-site assessment.



While each assessment is customizable, based on the size of the site, a typical assessment takes about five days, with many opportunities to learn through engagements with the assessors.

PSSAP assessors work with a site to schedule meetings with the sites' subject matter experts (SMEs) and PSSAP assessors spend a considerable amount of time in the field at a facility, holding employee discussions across shifts.

There are daily de-briefs and a closing conference to review key highlights and opportunities for each protocol or area assessed.

Following the on-site assessment, a PSSAP report is developed and provided, including a collection of what is working well and a set of observations about the implementation of existing policies and procedures in the field.

A site has the ability to comment on the report and work directly with the assessors prior to the Final Report being issued.




# PROTOCOLS

Industry-developed protocols designed to address key process safety activities are the basis for the site assessment. A protocol was created in each area through collaborative efforts of subject matter experts from a range of companies.

For each protocol, the assessors focus on assessing written programs, field implementation and promoting learning from the sharing of experiences and successful practices seen at industry sites to help facilities drive improvement.

Each protocol includes questions that are weighted relative to their importance to preventing a process safety event.

## PROTOCOLS:

- |   |  |
|---|--|
| 1. Process Safety Leadership                            | 8. Product Storage & Transfer                        |
| 2. Operating Practices                                  | 9. Incident Learning                                 |
| 3. Mechanical Integrity<br>(focused on fixed equipment) | 10. Safeguards (available if assessing PHA protocol) |
| 4. Safe Work Practices                                  | Plus:  |
| 5. Management of Change (MOC)                           | • Hydrofluoric Acid (HF)<br>Alkylation/API RP-751    |
| 6. Process Hazards Analysis (PHA)                       | • Extended Learnings                                 |
| 7. Facility Siting                                      |  |

PSSAP is an initiative that has proven to be effective in improving safety performance for refineries and petrochemical facilities of all sizes including:

- Full Assessment of Protocols 1-10
- Full Assessment of Protocols 1-10, plus audit per API's HF Alky/Recommended Practice 751, 'Safe Operation of Hydrofluoric Acid Alkylation Units' (HF RP 751)\*
- Assessment per API's HF Alky/Recommended Practice 751, 'Safe Operation of Hydrofluoric Acid Alkylation Units' PSSAP (fulfills three year RP 751 audit requirement)
- Sites may select any combination of protocols
- API also offers PSSAP Focused, which is a streamlined approach for smaller refineries and petrochemical facilities.
- PSSAP Extended Learning allows a site to conduct targeted good practice sharing by assessors <6 months following an assessment, perfect for sites that want to greatly improve their programs in specific areas.