

API PROCESS SAFETY EVENT (PSE) PUBLIC REPORTING:

America’s oil and natural gas industry considers safety a core value and is committed to developing the technologies, standards, best practices, and programs needed to help ensure that workplace safety is at the forefront of its activities. A process safety performance indicators program provides useful information for driving improvement and when acted upon, contributes to reducing risks of major hazards by identifying the underlying causes and taking action to prevent recurrence.

API collects process safety event (“PSE”) data based on ANSI/API Recommended Practice 754 Second Edition, *Process Safety Performance Indicators for the Refining and Petrochemical Industries*.

Year-to-year trending of performance data is a common method for assessing change. However, there are several factors that pose challenges for any year-to-year trend analysis of PSE data. The trends are for a small, finite population (refineries) and the events observed (PSEs) are statistically rare. Moreover, a PSE is a discrete event (a refinery cannot have 0.2 events in a year), further complicating any effort to statistically show a trend.

Because of these factors, yearly PSE data will tend to fluctuate and, in general, a year-to-year change is not a statistically significant indicator of real change. To address these factors, API “smooths” these fluctuations by showing a five-year rolling average, which is recognized by the industry as an indicator of sustainable performance.

The tables below show the data that API has collected for years 2015-2019.

U.S. Refining PSE Summary Data

	2015	2016	2017	2018	2019	5-Year Average
Number of Companies	32	32	29	31	28	30
Number of Refineries	95	96	92	100	99	96
Refinery Capacity Response Rate	90%	89%	85%	95%	93%	90%
Tier 1 PSEs Reported	147	84	101	91	102	105
Tier 1 PSE Rate per 200,000 Workforce Hours	0.0952	0.0548	0.0716	0.0560	0.0608	0.0674
Tier 2 PSEs Reported	290	260	253	281	264	270
Tier 2 PSE Rate per 200,000 Workforce Hours	0.1878	0.1695	0.1794	0.1728	0.1574	0.1730



Figure 1. U.S. Refining Tier 1 PSE Rates (2015-2019)

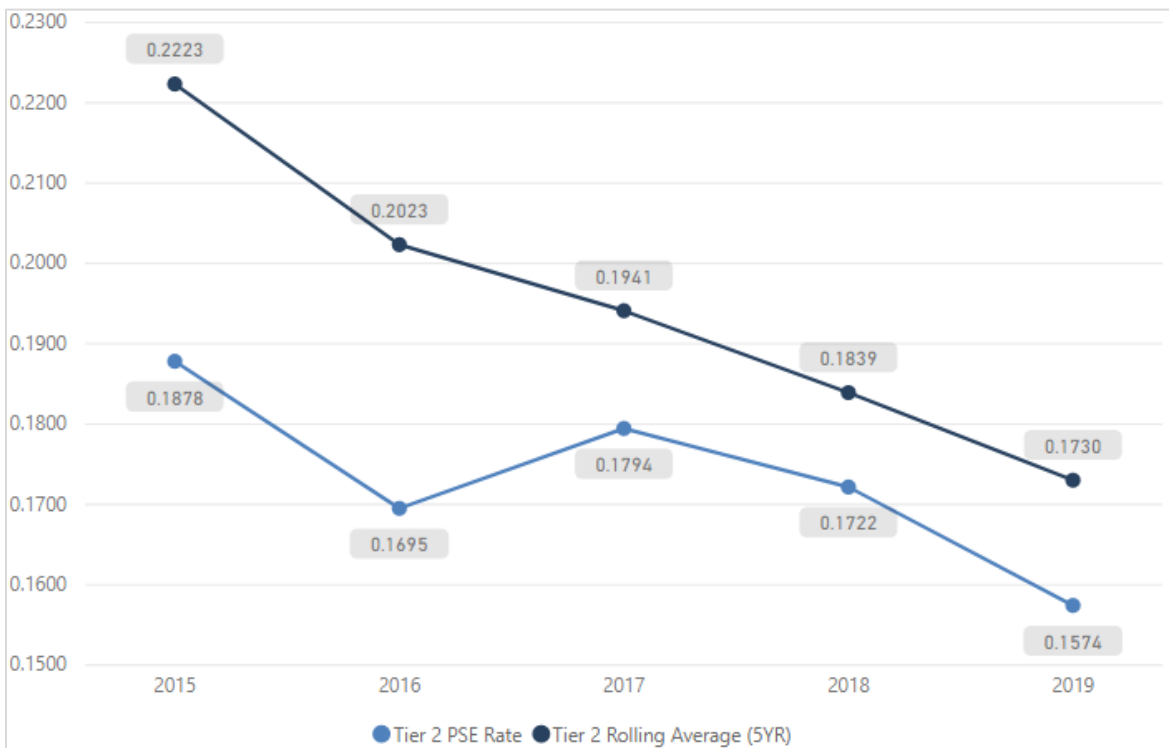


Figure 2. U.S. Refining Tier 2 PSE Rates (2015-2019)