

Pasadena Citizens' Advisory Council

Annual Report on Worker Safety

For Calendar Year 2023

**Occupational Safety and Health Administration (OSHA)
work-related injury and illness data
for employees and contractors
in 18 PCAC plants**

DRAFT 3-29-24

PCAC PLANTS INCLUDE...

Refineries that refine crude oil into gasoline and other fuels; chemical plants that make organic and inorganic chemicals, and plastics; a wastewater treatment plant; and terminals that store liquids until shipment.

Some cases begin as restricted duty but become lost-time. Plants thus may show one injury in both categories.

Symbols used in report:

* no contractor hours -- Air Products

Table of Contents

1	Cover
2	Table of Contents
3	Highlights
6	Plant Size by Work Hours in 2023
7	Data by Work Hours
8	Trend in Weighted Averages Chart
9	Trend in Simple Averages Chart
10	Total Recordable Rates Listed Alphabetically
11	Trend in Median Chart
12	Recordable Rates with Range and Median
13	2023 Rankings Based on Rates Chart
14	Rank by Number of Recordables
15	5-Year Rankings
16	5-Year Averages of Total Recordable Rates
17	Severity of Recordables Chart
18	Severity of Lost-Time Injuries Chart
19	Cause of Recordables
20	Type of Recordable Injury Chart
21	Type of Recordable Injury Listed Alphabetically
22	Recordables from Chemical Exposure or Contact
23	Employee-Contractor Comparison Chart 2023
24	Comparison of 2023 Employee vs. Contractor Numbers
25	Comparison of 2023 Employee vs. Contractor Recordable Rates
26	Recordable Rate Ranking of Employees
27	Recordable Rate Ranking of Contractors
28	Comparing Recordable Rates within National Industry Groups
29	OSHA Voluntary Protection Program Site
31	Safety Details for Each Plant
34	Historical Recordable Rates

Highlights

Pasadena CAC Plants in Years	2023	2022	2021	2020	2019	2018	2017	2016	2015	2014	2013	2010	2006	2005	2002	2000
Total work hours	14,884,025	12,261,974	10,246,081	11,450,548	13,453,653	14,046,937	13,519,023	15,433,320	14,349,900	13,640,052	15,204,003	14,693,700	15,785,172	13,161,458	12,345,007	
Employee work hours	5,505,101	5,530,998	5,409,639	6,291,458	6,068,196	6,242,680	6,248,911	6,463,995	7,160,389	7,019,174	7,325,477	7,899,336	7,204,147	7,036,465		
Contractor work hours	9,378,924	6,474,704	4,836,442	5,159,090	7,385,457	7,804,257	7,270,112	8,969,325	7,189,511	6,620,878	7,851,526	6,794,364	8,581,025	6,124,993		
Total workers (est. 2,080 per person)	7,156	5,895	4,926	5,505	6,468	6,753	6,500	7,420	6,899	6,558	7,310	7,064	7,589	6,328	5,935	
Employees	2,647	2,651	2,601	3,025	2,917	3,001	3,004	3,108	3,443	3,375	3,522	3,798	3,464	3,383		
Contractors	4,509	3,245	2,325	2,480	3,551	3,752	3,495	4,312	3,456	3,183	3,775	3,267	4,125	2,945		
Recordable injuries or illnesses	18	22	22	13	25	18	20	13	34	19	34	45	65	60	73	
Employees	11	7	19	11	14	15	18	8	19	8	22	25	30	34		
Contractors	7	15	3	2	11	3	2	5	15	11	12	20	35	26		
Number of recordables that were restricted duty cases	6	5	6	7	10	4	2	3	7	8	12	13	12			
Employees	4	2	6	7	6	4	2	1	5	4	9	11	7			
Contractors	2	3	0	0	4	0	0	2	2	4	3	2	5			
Number of recordables that were lost-time cases	3	8	16	6	8	9	9	6	15	5	14	16	20	19	26	
Employees	2	5	16	6	6	8	9	4	10	3	12	12	14	13	26	
Contractors	1	3	0	0	2	1	0	2	5	2	2	4	6	6	0	
Percentage of lost-times	17%	36%	73%	46%	32%	50%	45%	46%	44%	26%	41%	36%	31%	32%	36%	
Number of lost-time cases less than a week	0	0	2	2	1	2	1	1	1	1	6	3				
Employees	0	0	2	2	1	2	1	0	1	1	5	1				
Contractors	0	0	0	0	0	0	0	1	0	0	1	2				
Number of lost-time cases 1 week to 1 month	1	3	5	2	0	1	2	2	5	3	2	5				
Employees	1	2	5	2	0	1	2	1	1	2	2	4				
Contractors	0	1	0	0	0	0	0	1	4	1	0	1				

Highlights

Pasadena CAC Plants in Years	2023	2022	2021	2020	2019	2018	2017	2016	2015	2014	2013	2010	2006	2005	2002	2000
Number of lost-time cases more than a month	2	5	9	2	6	6	6	3	9	1	6	8				
Employees	1	3	9	2	5	5	6	3	8	0	5	7				
Contractors	1	2	0	0	1	1	0	0	1	1	1	1				
Fatalities	0	0	0	1	0	0	0	0	1	0	0	0	0	0	0	1
Employee or Contractor				Employee												
Number of recordables from chemical exposure or contact	2	0	0	1	2	1	5	0	6	1	2	2				
Employees	2	0	0	1	2	1	5	0	6	1	2	1				
Contractors	0	0	0	0	0	0	0	0	0	0	0	1				
Weighted average of plant recordable rates	0.24	0.36	0.43	0.23	0.37	0.26	0.30	0.17	0.47	0.28	0.45	0.61	0.82	0.91	1.18	
Employees	0.40	0.25	0.70	0.35	0.46	0.48	0.58	0.25	0.53	0.23	0.60	0.63	0.83	0.97		
Contractors	0.15	0.44	0.12	0.08	0.30	0.08	0.06	0.11	0.42	0.33	0.31	0.59	0.82	0.85		
Simple average of plant recordable rates	0.72	0.37	1.32	0.47	0.46	0.49	0.62	0.12	0.48	0.38	0.76	0.65	0.95	0.96	1.47	2.64
Median of plant recordable rates	0.20	0.00	0.25	0.00	0.24	0.18	0.00	0.00	0.06	0.00	0.30	0.56	0.82	0.59	1.06	1.03
Employees	0.00	0.00	0.48	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.51				
Contractors	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.58				

Highlights

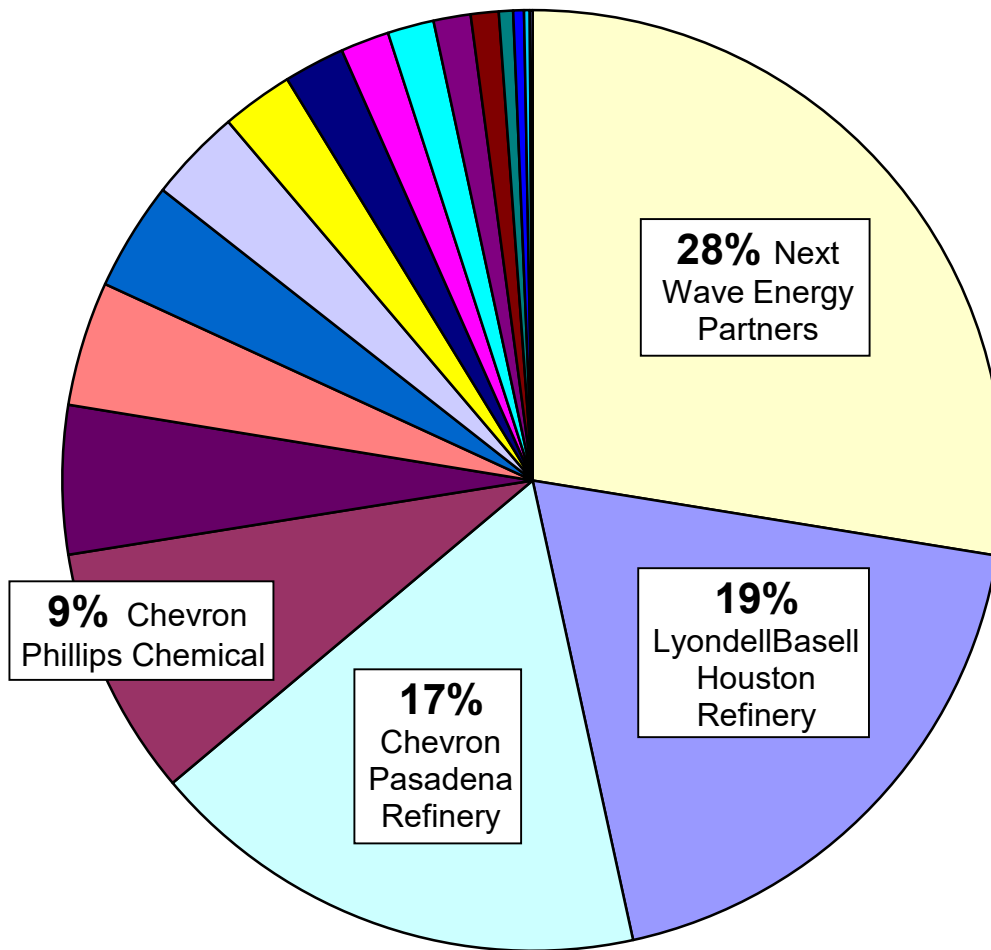
Pasadena CAC Plants in Years	2023	2022	2021	2020	2019	2018	2017	2016	2015	2014	2013	2010	2006	2005	2002	2000
Number of plants with 0.00 for both employees & contractors	7*	10*	9	10	8	8	10	11	9	9	5	6	2	5	4	
Employees	10	12	9	10	10	9	10	11	12	11	9	7				
Contractors	13	11	11	14	11	13	16	12	11	12	10	7				
* 1 plant used no contractors																
Most consecutive 0.00 rates for both	AP 7 years	AP & KMET - 6 yrs	INEOS Phenol 10 yrs	INEOS Phenol 9 yrs	INEOS Phenol 8 yrs	Enterprise Products 8 yrs	Enterprise Products 7 yrs	Enterprise Products 6 yrs	Enterprise Products 5 yrs	Enterprise Products 4 yrs	Sekisui 7 yrs	Sekisui 4 yrs				
5-year average Rate over 5-year period	0.62	0.58	1.32	0.35	0.35	0.48	0.43	0.58	0.65	0.75	0.81	0.65				
Worker-safety-related 3rd party voluntary audit programs																
Certified in OSHA Voluntary Protection Program (VPP)	2 VPP	2 VPP	2 VPP	2 VPP	2 VPP	3 VPP	2 VPP	2 VPP	2 VPP	1 VPP, 1 Challenge	1 VPP, 1 Challenge	1				
Working toward OSHA VPP or Challenge audit	1 VPP/ Challenge	1 VPP/ Challenge	1 VPP/ Challenge	2 VPP/ Challenge	1 VPP/ Challenge	1 VPP/ Challenge	1 Challenge	0	1	2	2	5				
Scheduled for RCMS audit	**		**	**	7	5	6	4	6	4	4	2				
Not scheduled yet but corporation takes part in program	**		**	**	4	2	2	2	2	3	1	1				
	**		**	**	2	1	2	2	3	4	5	4				

** Question removed beginning in 2020

Plant Size by Work Hours in 2023

14,884,025 Total Work Hours

73% of total hours worked in 4 plants with more than 1 million work hours each



- Next Wave Energy Partners 4,101,291
- LyondellBasell Houston Refinery 2,831,453
- Chevron Pasadena Refinery 2,574,912
- Chevron Phillips Chemical 1,280,277
- KM Pasadena Terminal 759,043
- Albemarle (now Ketjen) 636,325
- Enterprise Products 556,984
- OxyChem Pasadena PVC 476,660
- Intercontinental Terminals 365,848
- Afton Chemical 311,703
- BASF 249,325
- INEOS Phenol 236,951
- Sekisui 189,116
- Evonik 143,192
- Gulf Coast Authority 73,318
- KM Export Terminal 54,258
- Ethyl 28,809
- Air Products* 14,560

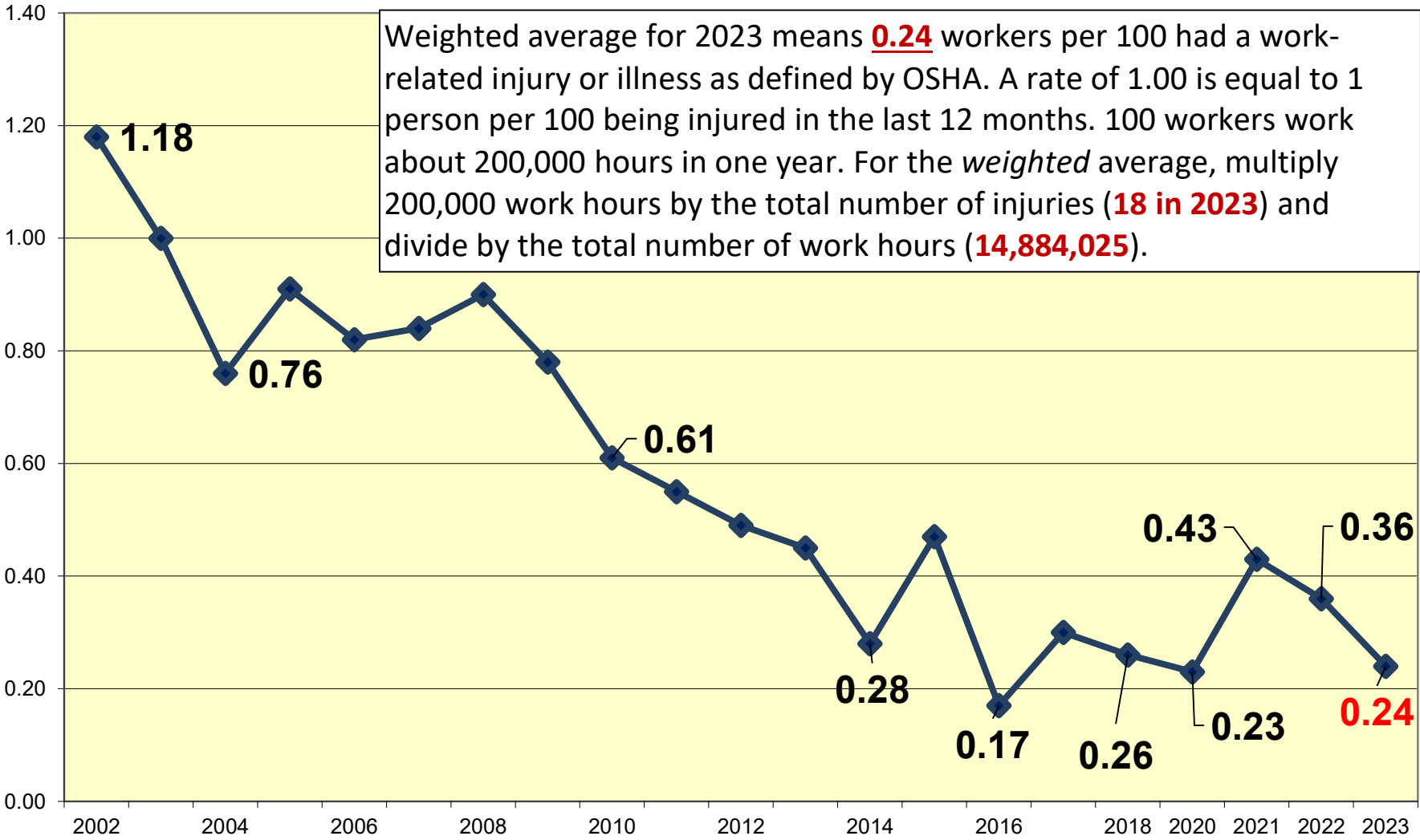
PCAC WORK-HOURS, NUMBERS OF INCIDENTS, RATES, AVERAGES in 2023

Approximate full-time equivalent employee count = work hours divided by 2,080 (hours one person works in a year)

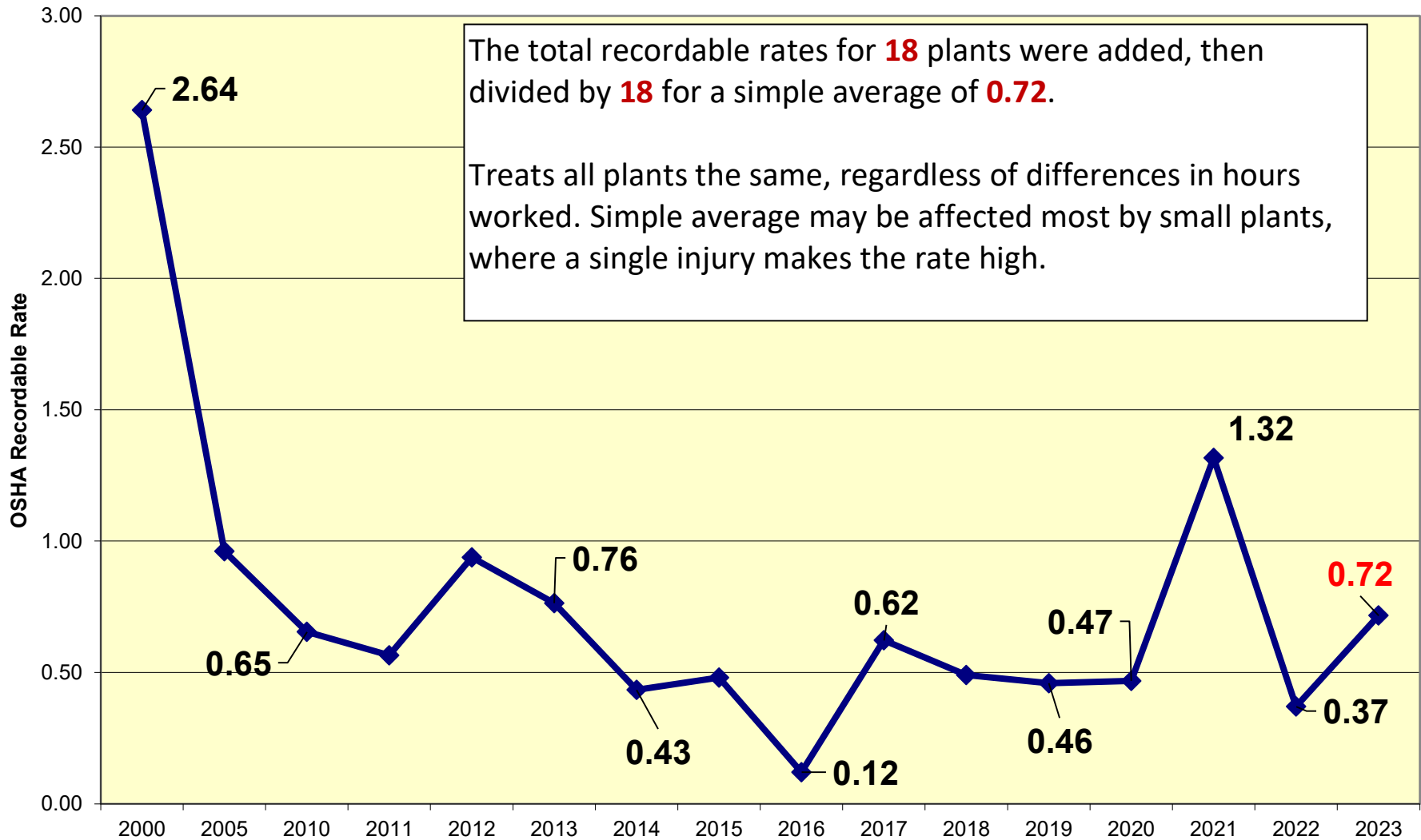
Plant size. Total recordable numbers and rates. Weighted averages.	Total work hours -- employees and contractors unless asterisk	Total no. of OSHA recordables	No. of restricted-duty cases	Total no. of lost-time cases	No. of lost- time cases less than 1 week	No. of lost- time cases 1 wk to 1 month	No. of lost- time cases more than 1 mo.	No of fatalities	No. due to chemical contact, exposure	Total restricted duty rate	Total lost- time rate	Total recordable rate	
Next Wave Energy Partners	4,101,291	1	0	0	0	0	0	0	0	0.00	0.00	0.05	
LyondellBasell Houston Refinery	2,831,453	2	2	0	0	0	0	0	1	0.14	0.00	0.14	
Chevron Pasadena Refinery	2,574,912	5	2	0	0	0	0	0	0	0.16	0.00	0.39	
Chevron Phillips Chemical	1,280,277	2	1	1	0	0	1	0	0	0.16	0.16	0.31	
KM Pasadena Terminal	759,043	1	0	0	0	0	0	0	0	0.00	0.00	0.26	
Albemarle (now Ketjen)	636,325	1	1	0	0	0	0	0	1	0.31	0.00	0.31	
Enterprise Products	556,984	0	0	0	0	0	0	0	0	0.00	0.00	0.00	
OxyChem Pasadena PVC	476,660	0	0	0	0	0	0	0	0	0.00	0.00	0.00	
Intercontinental Terminals	365,848	0	0	0	0	0	0	0	0	0.00	0.00	0.00	
Afton Chemical	311,703	1	0	0	0	0	0	0	0	0.00	0.00	0.64	
BASF	249,325	1	0	0	0	0	0	0	0	0.00	0.00	0.80	
INEOS Phenol	236,951	1	0	0	0	0	0	0	0	0.00	0.00	0.84	
Sekisui	189,116	0	0	0	0	0	0	0	0	0.00	0.00	0.00	
Evonik	143,192	0	0	0	0	0	0	0	0	0.00	0.00	0.00	
Gulf Coast Authority	73,318	2	0	2	0	1	1	0	0	0.00	5.46	5.46	
KM Export Terminal	54,258	1	0	0	0	0	0	0	0	0.00	0.00	3.69	
Ethyl	28,809	0	0	0	0	0	0	0	0	0.00	0.00	0.00	
Air Products*	14,560	0	0	0	0	0	0	0	0	0.00	0.00	0.00	
totals & simple average	14,884,025	18	6	3	0	1	2	0	2	0.04	0.31	0.72	
			0 restricted duty cases became lost-time cases.								simple average of restricted duty rate	simple average of lost- time rate	simple average of total recordable rate
weighted averages		0.24	0.08	0.04	0.00	0.01	0.03	0.00	0.03				

* no contractor hours

Trend in Weighted Averages 2023



Trend in Simple Average 2023



ANNUAL REPORT ON SAFETY FOR CALENDAR YEAR 2023

Pasadena Citizens' Advisory Council

TOTAL RECORDABLE RATES FOR 18 PCAC PLANTS

Recordable Rate = 200,000 work hours multiplied by number of injuries, then divided by work hours

Total Recordable Rate (employees and contractors combined, unless asterisked). Plants in alphabetical order.

	2000	2005	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
Afton Chemical								0.00	0.00	0.00	2.63	0.00	0.00	0.52	0.00	0.64
Air Products*	0.41	1.57	0.00	1.29	0.00	0.44	1.78	0.25	0.33	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Albemarle (now Ketjen)	0.75	0.28	1.35	0.00	0.53	0.29	0.00	0.85	0.00	0.30	0.31	0.67	0.00	0.00	0.00	0.31
BASF	0.62	0.00	0.70	0.00	0.00	0.68	0.00	0.00	0.00	0.27	1.37	0.74	0.00	0.00	0.59	0.80
Chevron Pasadena Refinery		2.09	0.62	0.77	1.18	0.26	0.56	1.00	0.25	0.00	0.42	0.48	0.18	0.45	0.54	0.39
Chevron Phillips Chemical	13.39	0.45	0.37	0.67	0.77	1.09	0.12	0.52	0.25	0.31	0.00	0.36	0.15	0.25	0.31	0.31
Enterprise Products			2.14	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.19	1.55	0.00	0.00	0.00
Ethyl	1.18	0.00	0.00	0.00	1.28	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.98	0.00	0.00
Evonik										2.36	0.00	0.00	0.00	0.00	1.85	0.00
Gulf Coast Authority			0.00	0.00	5.49	2.60	2.45	0.00	0.00	0.00	0.00	0.00	3.04	5.86	0.00	5.46
INEOS Phenol	2.10	0.00	0.00	1.45	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.09	0.84
Intercontinental Terminals						0.00	0.00	0.71	0.25	0.00	0.35	0.33	0.55	0.00	0.00	0.00
KM Export Terminal										0.00	0.00	0.00	0.00	0.00	0.00	3.69
KM Pasadena Terminal	1.03	0.00	0.75	0.00	0.56	0.30	0.00	0.00	0.00	0.00	1.24	0.62	0.41	1.37	0.57	0.26
LyondellBasell Houston Refinery	0.86	0.73	0.49	0.30	0.26	0.16	0.24	0.11	0.14	0.09	0.06	0.15	0.09	0.32	0.00	0.14
Next Wave Energy Partners															0.85	0.05
OxyChem Pasadena PVC	0.77	0.93	0.93	0.00	0.00	1.85	0.46	0.00	0.00	0.98	0.46	0.43	0.00	1.30	0.85	0.00
Sekisui	0.00	1.54	0.00	0.00	0.00	0.00	1.29	1.02	0.00	2.61	1.39	0.00	0.00	1.33	0.00	0.00

Site History: Crown refinery (sold to Pasadena Refining)

2.70

Site History: Houston Products Processing *

	0.00	0.00	0.00	3.18	2.89	0.00	0.00
	2.75	3.64	0.92	2.25	0.00	1.44	2.85

Site History Sun Edison

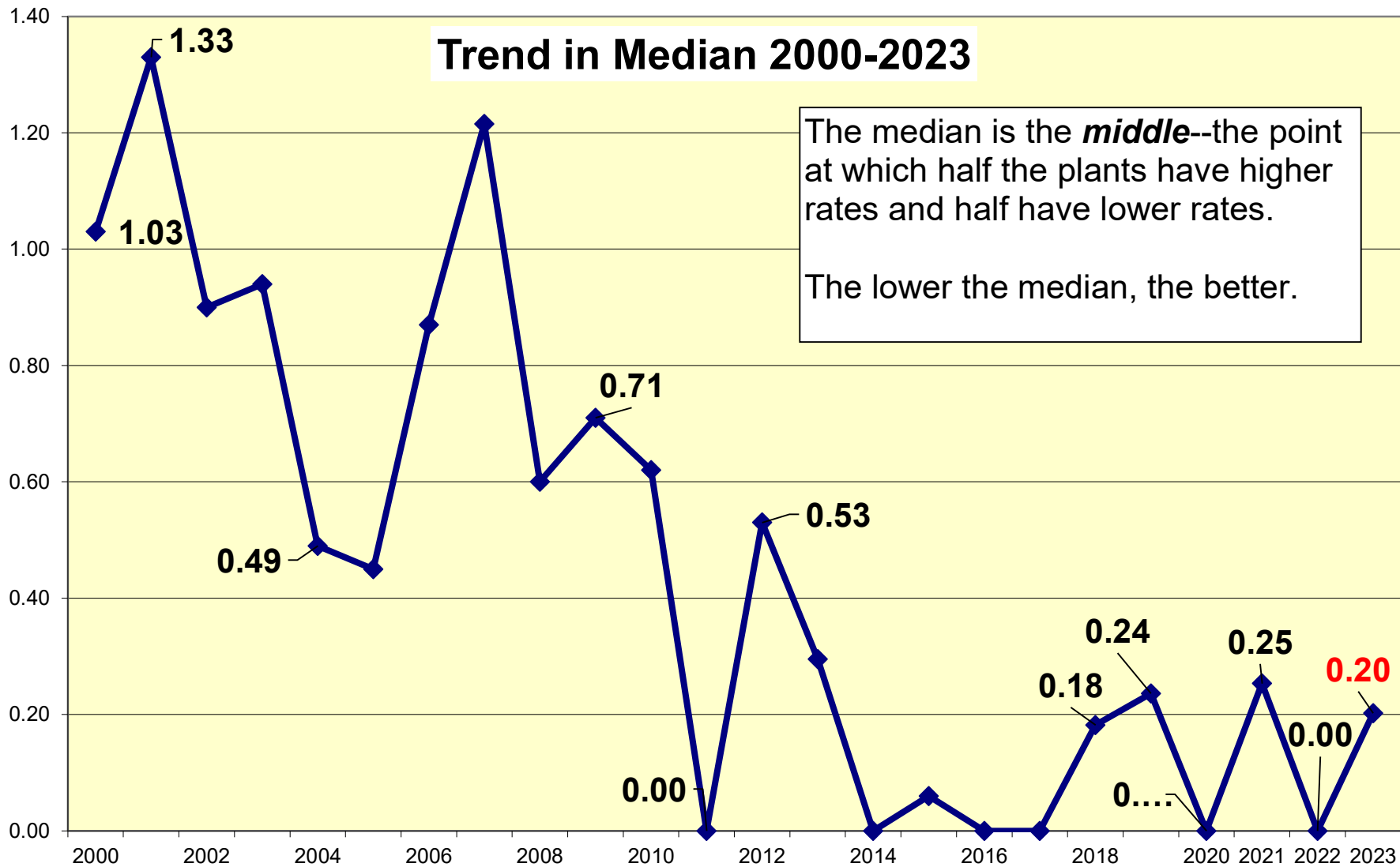
Site History: PCI Nitrogen

	7.77	2.23	2.20	2.31	1.76	0.99	0.47	1.34	0.71	4.28	0.62	2.30	2.44	-----
--	------	------	------	------	------	------	------	------	------	------	------	------	------	-------

Simple average of plant rates

	2.64	0.96	0.65	0.57	0.94	0.76	0.43	0.48	0.12	0.62	0.49	0.46	0.47	1.32	0.37	0.72
	2000	2005	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023

* no contractor hours



2023 TOTAL RECORDABLE RATES WITH RANGE & MEDIAN

median is the middle--half of the plants have higher rates and half have lower rates

PCAC Plants - Ranking Lowest to Highest 2023 Median (half plants higher, half lower)

	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	Ranking by Lowest to Highest Recordable Rate		
Air Products*	0.41	0.44	1.06	0.33	0.46	1.57	0.69	0.51	0.47	0.67	0.00	1.29	0.00	0.44	1.78	0.25	0.33	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	Air Products*	
Enterprise Products								14.17	0.00	1.24	2.14	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.19	1.55	0.00	0.00	0.00	Enterprise Products		
Ethyl	1.18	0.94	0.00	1.87	1.54	0.00	0.77	1.62	1.10	0.00	0.00	0.00	1.28	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.98	0.00	0.00	Ethyl		
Evonik																		2.36	0.00	0.00	0.00	0.00	1.85	0.00	Evonik		
Intercontinental Terminals														0.00	0.00	0.71	0.25	0.00	0.35	0.33	0.55	0.00	0.00	0.00	Intercontinental Terminals		
OxyChem Pasadena PVC	0.77	0.89	1.25	0.44	0.00	0.93	0.46	0.00	0.45	0.45	0.93	0.00	0.00	1.85	0.46	0.00	0.00	0.98	0.46	0.43	0.00	1.30	0.85	0.00	OxyChem Pasadena PVC		
Sekisui	0.00	0.00	0.00	0.00	0.00	1.54	3.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.29	1.02	0.00	2.61	1.39	0.00	0.00	1.33	0.00	0.00	Sekisui		
Next Wave Energy Partners																								0.85	0.05	Next Wave Energy Partners	
LyondellBasell Houston Refinery	0.86	0.98	0.63	0.60	0.37	0.73	0.44	0.46	0.81	0.74	0.49	0.30	0.26	0.16	0.24	0.11	0.14	0.09	0.06	0.15	0.09	0.32	0.00	0.14	LyondellBasell Houston Refinery		
KM Pasadena Terminal	1.03	1.04	2.75	3.00	2.47	0.00	0.87	1.25	2.18	0.71	0.75	0.00	0.56	0.30	0.00	0.00	0.00	1.24	0.62	0.41	1.37	0.57	0.26	0.26	KM Pasadena Terminal		
Chevron Phillips Chemical	13.39	1.42	0.90	0.94	0.49	0.45	1.04	1.18	1.28	0.41	0.37	0.67	0.77	1.09	0.12	0.52	0.25	0.31	0.00	0.36	0.15	0.25	0.31	0.31	0.31	Chevron Phillips Chemical	
Albemarle (now Ketjen)	0.75	1.34	0.68	0.47	1.01	0.28	1.14	0.56	0.00	0.27	1.35	0.00	0.53	0.29	0.00	0.85	0.00	0.30	0.31	0.67	0.00	0.00	0.00	0.31	Albemarle (now Ketjen)		
Chevron Pasadena Refinery						2.09	1.73	1.31	0.75	0.58	0.62	0.77	1.18	0.26	0.56	1.00	0.25	0.00	0.42	0.48	0.18	0.45	0.54	0.39	0.39	Chevron Pasadena Refinery	
Afton Chemical																0.00	0.00	0.00	2.63	0.00	0.00	0.52	0.00	0.64	0.64	Afton Chemical	
BASF	0.62	1.33	1.76	1.17	0.00	0.00	0.77	0.00	0.00	2.04	0.70	0.00	0.00	0.68	0.00	0.00	0.00	0.27	1.37	0.74	0.00	0.00	0.59	0.80	BASF		
INEOS Phenol	2.10	3.28	0.00	0.00	3.08	0.00	0.00	3.12	0.00	0.00	0.00	1.45	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.09	0.84	INEOS Phenol		
KM Export Terminal																							0.00	0.00	0.00	0.00	KM Export Terminal
Gulf Coast Authority										3.26	0.00	0.00	5.49	2.60	2.45	0.00	0.00	0.00	0.00	0.00	0.00	3.04	5.86	0.00	5.46	Gulf Coast Authority	

Site History: Crown (sold to Pasadena Refining)

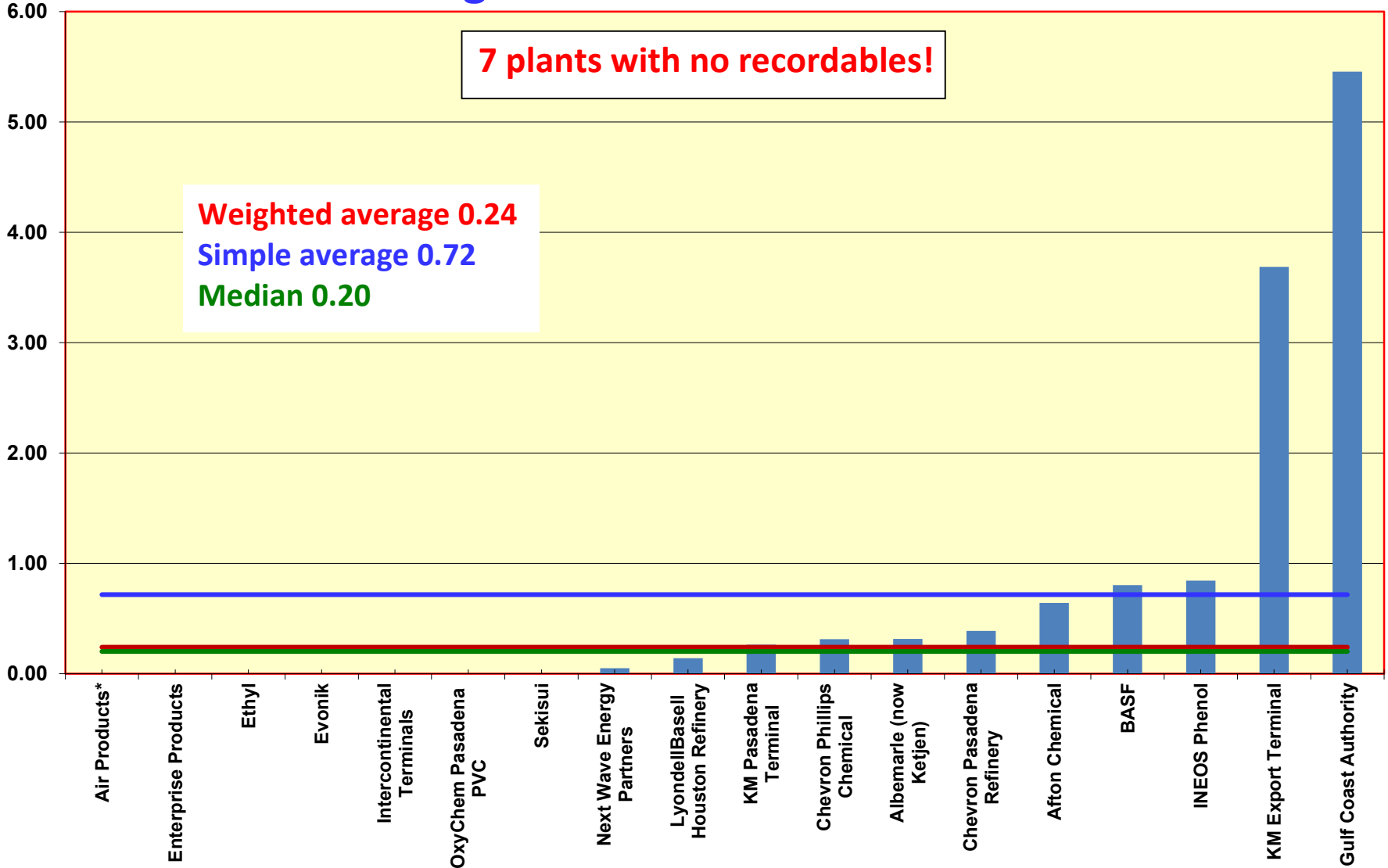
	2.70	2.78	3.39	3.64	1.82																							
Site History: HPP					0.00	0.00	0.00	0.00	0.00	3.39	0.00	0.00	3.18	2.89	0.00	0.00												Houston Products Processing *
Site History: PCI Nitrogen	7.77	11.04	3.65	1.65	0.39	2.23	1.18	1.61	0.84	0.75	2.20	2.31	1.76	0.99	0.47	1.34	0.71	4.28	0.62	2.30	2.44	-----					PCI Nitrogen	
Site History: Sun Edison	2.75	4.13	3.07	3.05	2.49	3.64	1.17	2.02	3.63	3.13	0.92	2.25	0.00	1.44	0.00	2.85											Sun Edison	

Median

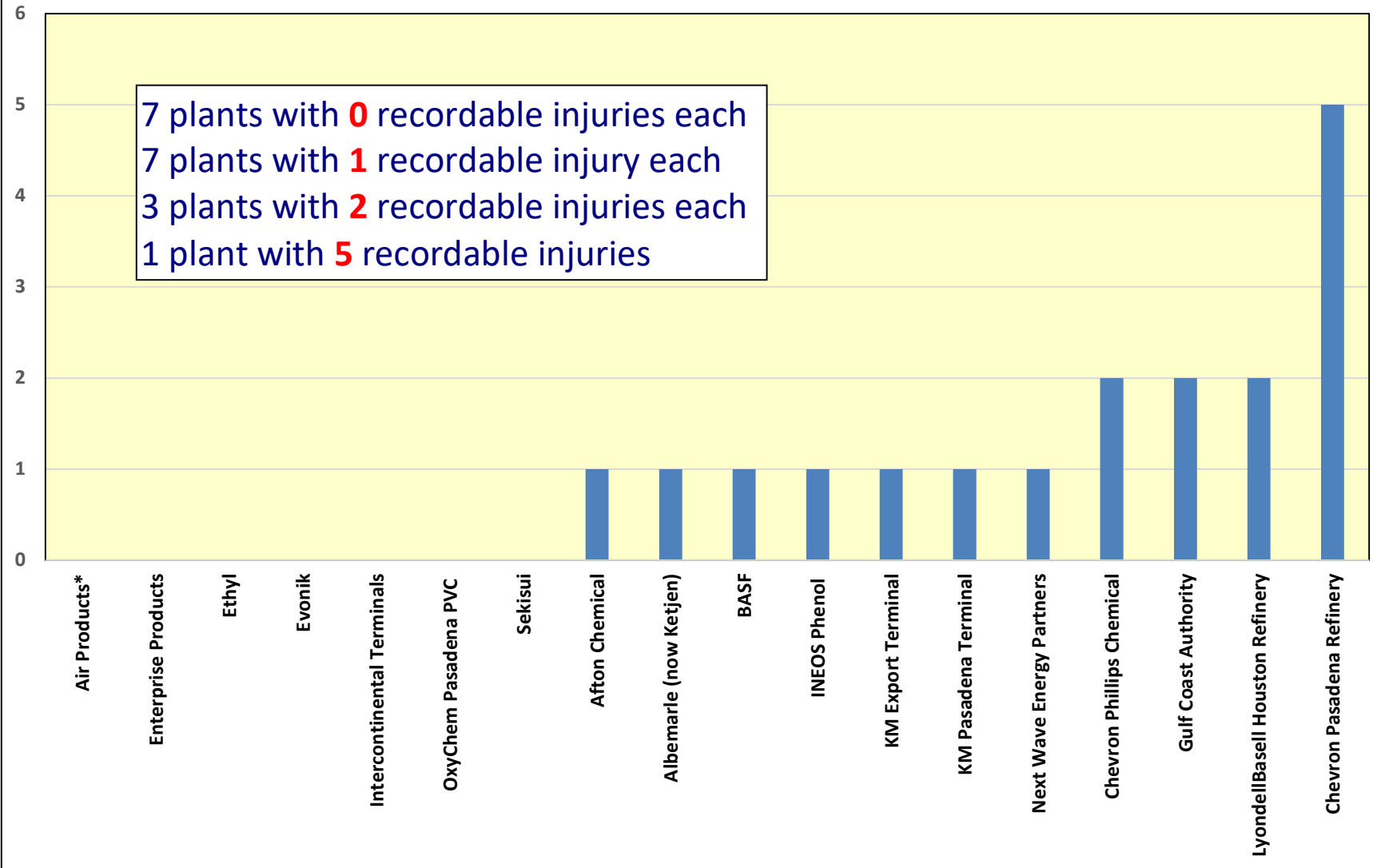
	1.03	1.33	0.90	0.94	0.49	0.45	0.87	1.22	0.60	0.71	0.62	0.00	0.53	0.30	0.00	0.06	0.00	0.00	0.18	0.24	0.00	0.25	0.00	0.20	
	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	

* no contractor hours

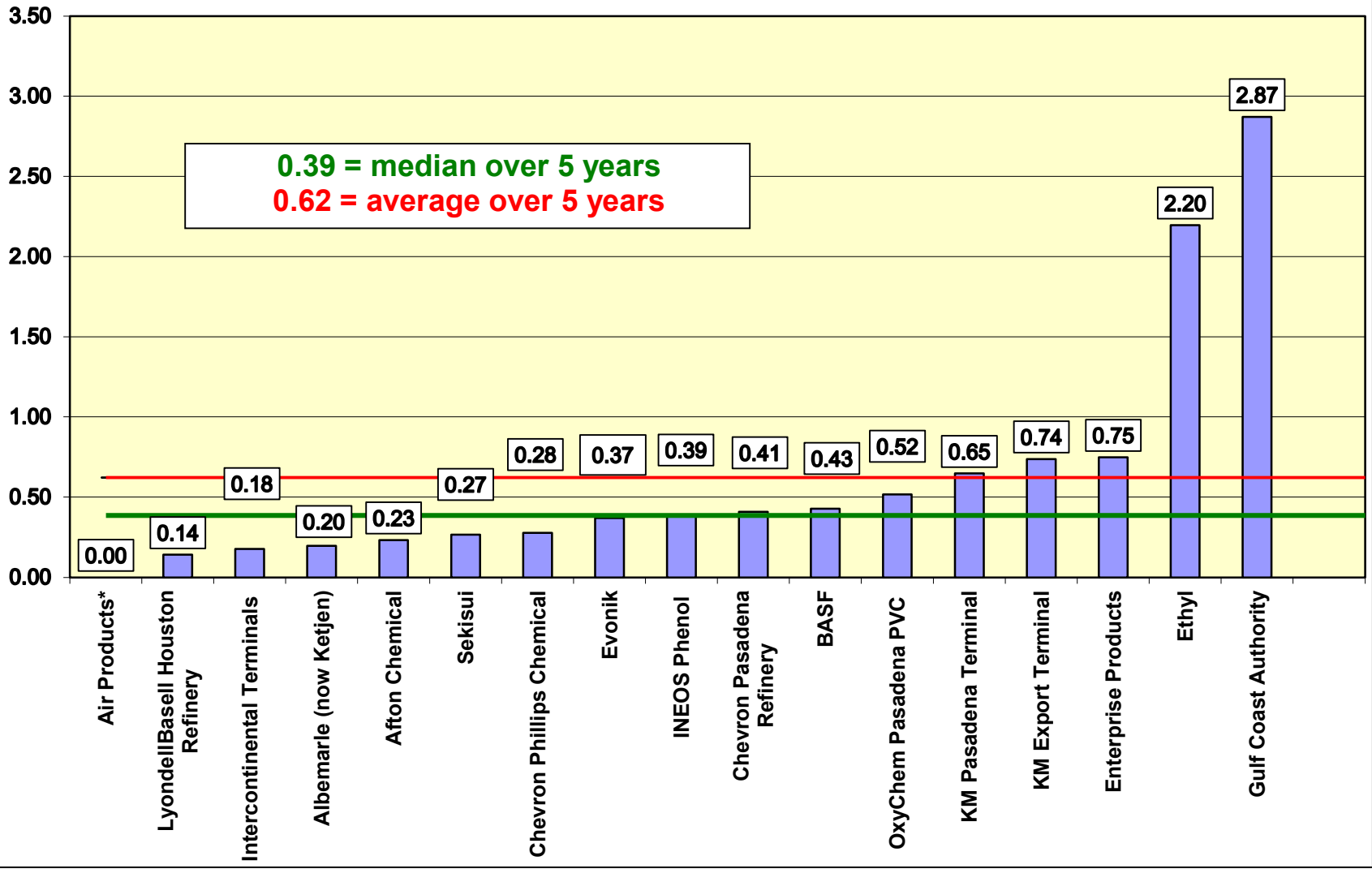
Plant Rankings 2023 Based on Recordable Rates



Plant Rankings by *Number* of Recordables - 2023



5-Year Plant Ranking by Average Recordable *Rates* 2019-2023 for plants in PCAC for 5 or more years



ANNUAL REPORT ON SAFETY FOR CALENDAR YEAR 2023

Pasadena Citizens' Advisory Council

5-YEAR AVERAGES for plants with 5 years of data

Total Recordable Rate (employees and contractors combined)

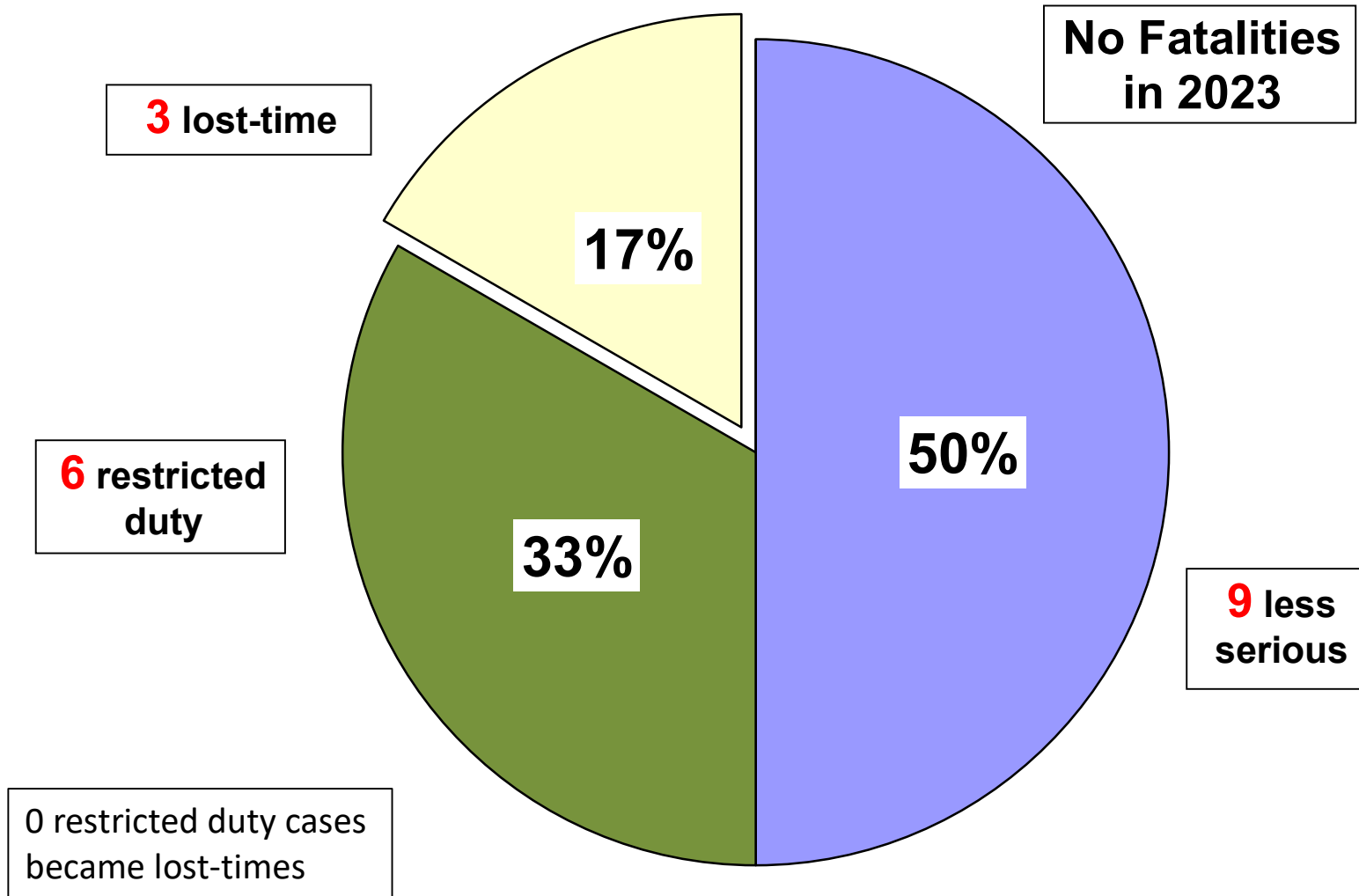
Plant Name	5-yr avg	2019	2020	2021	2022	2023
Air Products*	0.00	0.00	0.00	0.00	0.00	0.00
LyondellBasell Houston Refinery	0.14	0.15	0.09	0.32	0.00	0.14
Intercontinental Terminals	0.18	0.33	0.55	0.00	0.00	0.00
Albemarle (now Ketjen)	0.20	0.67	0.00	0.00	0.00	0.31
Afton Chemical	0.23	0.00	0.00	0.52	0.00	0.64
Sekisui	0.27	0.00	0.00	1.33	0.00	0.00
Chevron Phillips Chemical	0.28	0.36	0.15	0.25	0.31	0.31
Evonik	0.37	0.00	0.00	0.00	1.85	0.00
INEOS Phenol	0.39	0.00	0.00	0.00	1.09	0.84
Chevron Pasadena Refinery	0.41	0.48	0.18	0.45	0.54	0.39
BASF	0.43	0.74	0.00	0.00	0.59	0.80
OxyChem Pasadena PVC	0.52	0.43	0.00	1.30	0.85	0.00
KM Pasadena Terminal	0.65	0.62	0.41	1.37	0.57	0.26
KM Export Terminal	0.74	0.00	0.00	0.00	0.00	3.69
Enterprise Products	0.75	2.19	1.55	0.00	0.00	0.00
Ethyl	2.20	0.00	0.00	10.98	0.00	0.00
Gulf Coast Authority	2.87	0.00	3.04	5.86	0.00	5.46
5- yr in order from best to highest	5-yr avg	2019	2020	2021	2022	2023

Average of 5-yr plant rates	0.62	0.35	0.35	1.32	0.34	0.76
Median of 5-year plant rates	0.39					

* no contractor hours

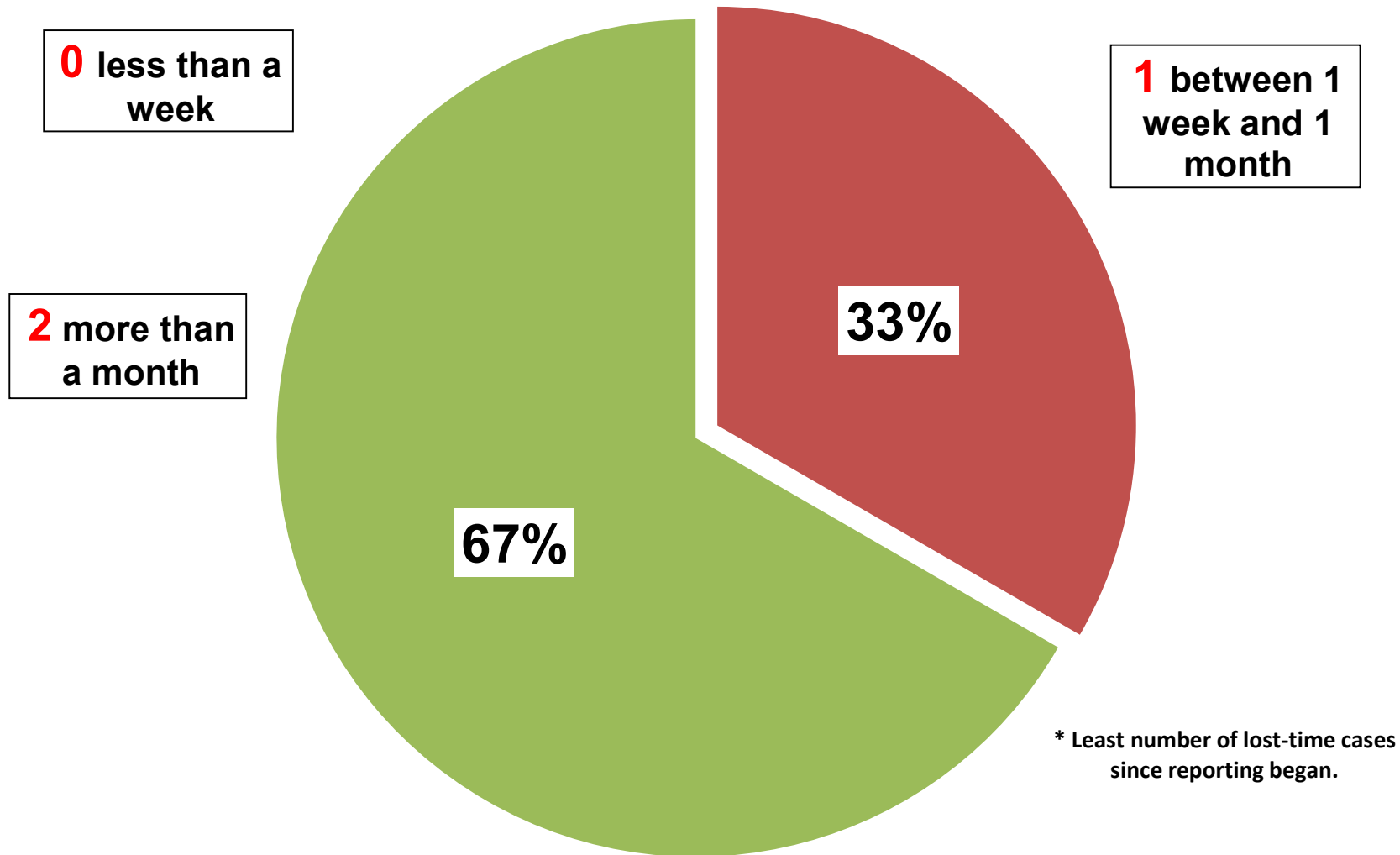
Next Wave Energy does not have 5 years of data

Severity of Injury or Illness in 2023



Severity of the 3 Lost-Time Cases in 2023*

based on number of days away from work



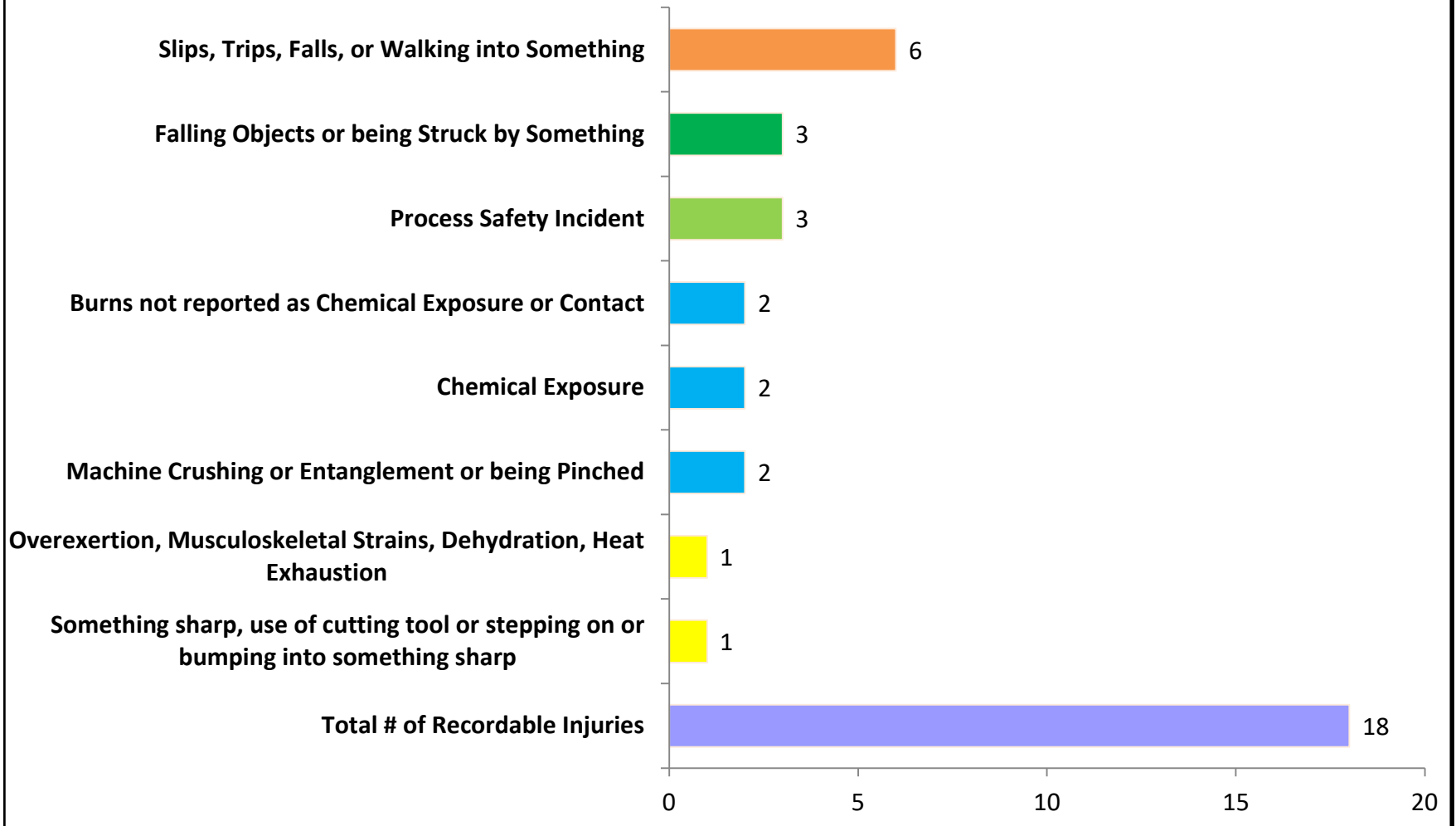
PCAC CAUSE OF THE 22 RECORDABLE INJURIES IN 2023

based on categories plants record on an OSHA 300A log

Plant Name	Total Recordable Injury Rate	Total # of Recordable Injuries	Mechanical/ Equipment Failure or Inadequate Design	Number From Process Safety Incident	Number of Process Safety Incidents in which these injuries occurred
Afton Chemical	0.64	1	0	0	0
Air Products*	0.00	0	0	0	0
Albemarle (now Ketjen)	0.31	1	0	0	0
BASF	0.80	1	0	0	0
Chevron Pasadena Refinery	0.39	5	0	0	0
Chevron Phillips Chemical	0.31	2	0	0	0
Enterprise Products	0.00	0	0	0	0
Ethyl	0.00	0	0	0	0
Evonik	0.00	0	0	0	0
Gulf Coast Authority	5.46	2	0	0	0
INEOS Phenol	0.84	1	0	1	1
Intercontinental Terminals	0.00	0	0	0	0
KM Export Terminal	3.69	1	0	0	0
KM Pasadena Terminal	0.26	1	1	0	0
LyondellBasell Houston Refinery	0.14	2	0	2	2
Next Wave Energy Partners	0.05	1	0	0	0
OxyChem Pasadena PVC	0.00	0	0	0	0
Sekisui	0.00	0	0	0	0
TOTALS:		18	1	3	3

* no contractor hours

Recordable Injuries in 2023 Resulted From:



Type of Recordable Injury in 2023

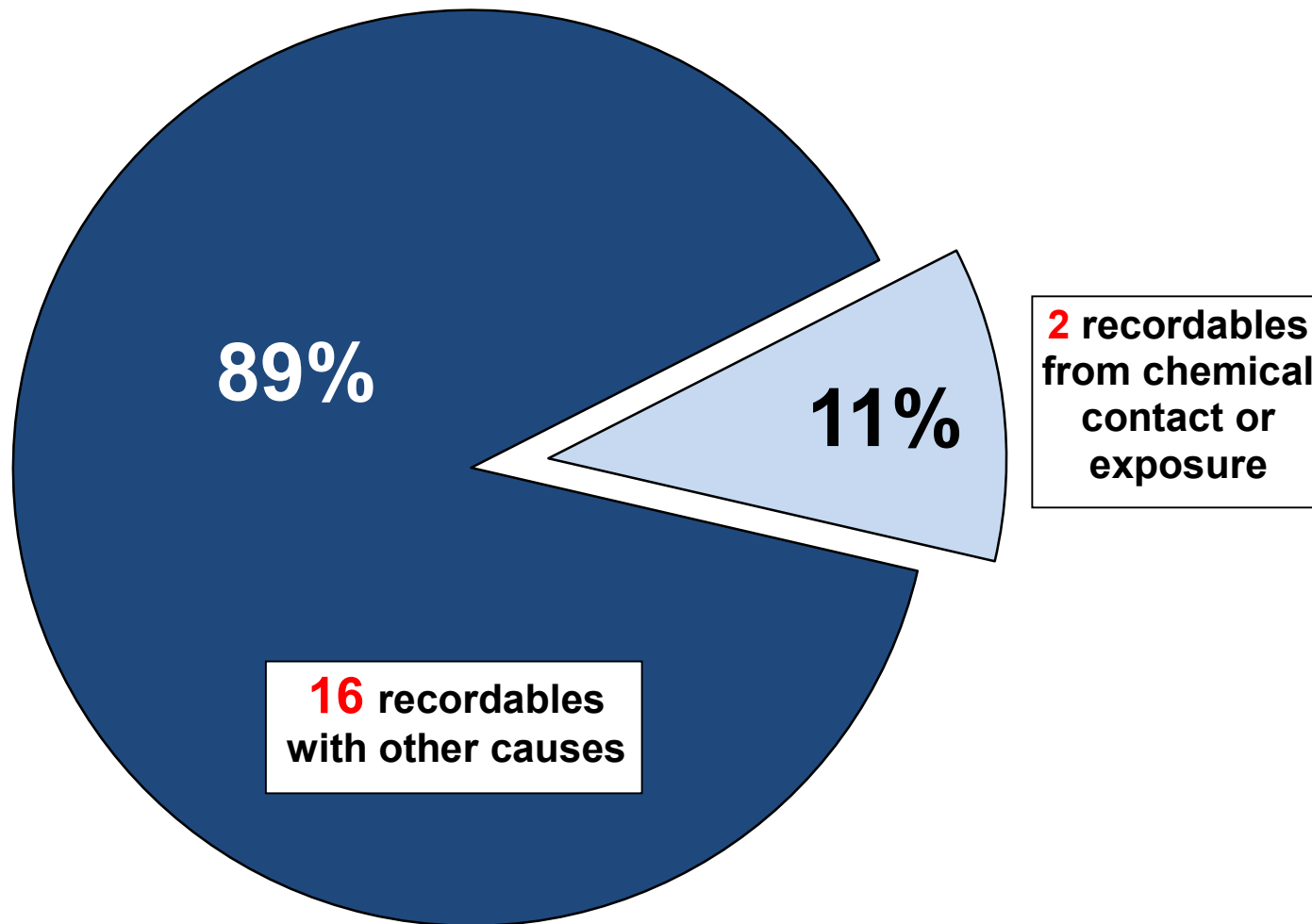
Plant Name	Total Recordable Injury Rate	Total # of Recordable Injuries	Something sharp, use of cutting tool or stepping on or bumping into something sharp	Overexertion, Musculoskeletal Strains, Dehydration, Heat Exhaustion	Machine Crushing or Entanglement or being Pinched	Chemical Exposure	Burns not reported as Chemical Exposure or Contact	Process Safety Incident	Falling Objects or being Struck by Something	Slips, Trips, Falls, or Walking into Something
Afton Chemical	0.64	1	0	0	0	0	0	0	0	1
Air Products*	0.00	0	0	0	0	0	0	0	0	0
Albemarle (now Ketjen)	0.31	1	0	0	0	1	0	0	0	0
BASF	0.80	1	0	0	0	0	0	0	1	0
Chevron Pasadena Refinery	0.39	5	0	0	2	0	1	0	0	2
Chevron Phillips Chemical	0.31	2	1	0	0	0	0	0	1	0
Enterprise Products	0.00	0	0	0	0	0	0	0	0	0
Ethyl	0.00	0	0	0	0	0	0	0	0	0
Evonik	0.00	0	0	0	0	0	0	0	0	0
Gulf Coast Authority	5.46	2	0	0	0	0	0	0	0	2
INEOS Phenol	0.84	1	0	0	0	0	0	1	0	0
Intercontinental Terminals	0.00	0	0	0	0	0	0	0	0	0
KM Export Terminal	3.69	1	0	1	0	0	0	0	0	0
KM Pasadena Terminal	0.26	1	0	0	0	0	0	0	1	0
LyondellBasell Houston Refinery	0.14	2	0	0	0	1	1	2	0	0
Next Wave Energy Partners	0.05	1	0	0	0	0	0	0	0	1
OxyChem Pasadena PVC	0.00	0	0	0	0	0	0	0	0	0
Sekisui	0.00	0	0	0	0	0	0	0	0	0
TOTALS		18	1	1	2	2	2	3	3	6

Notes: ** The two injuries at LyondellBasell Refinery were "chemical exposure" and "burns not reported as chemical exposure" from process safety incidents.

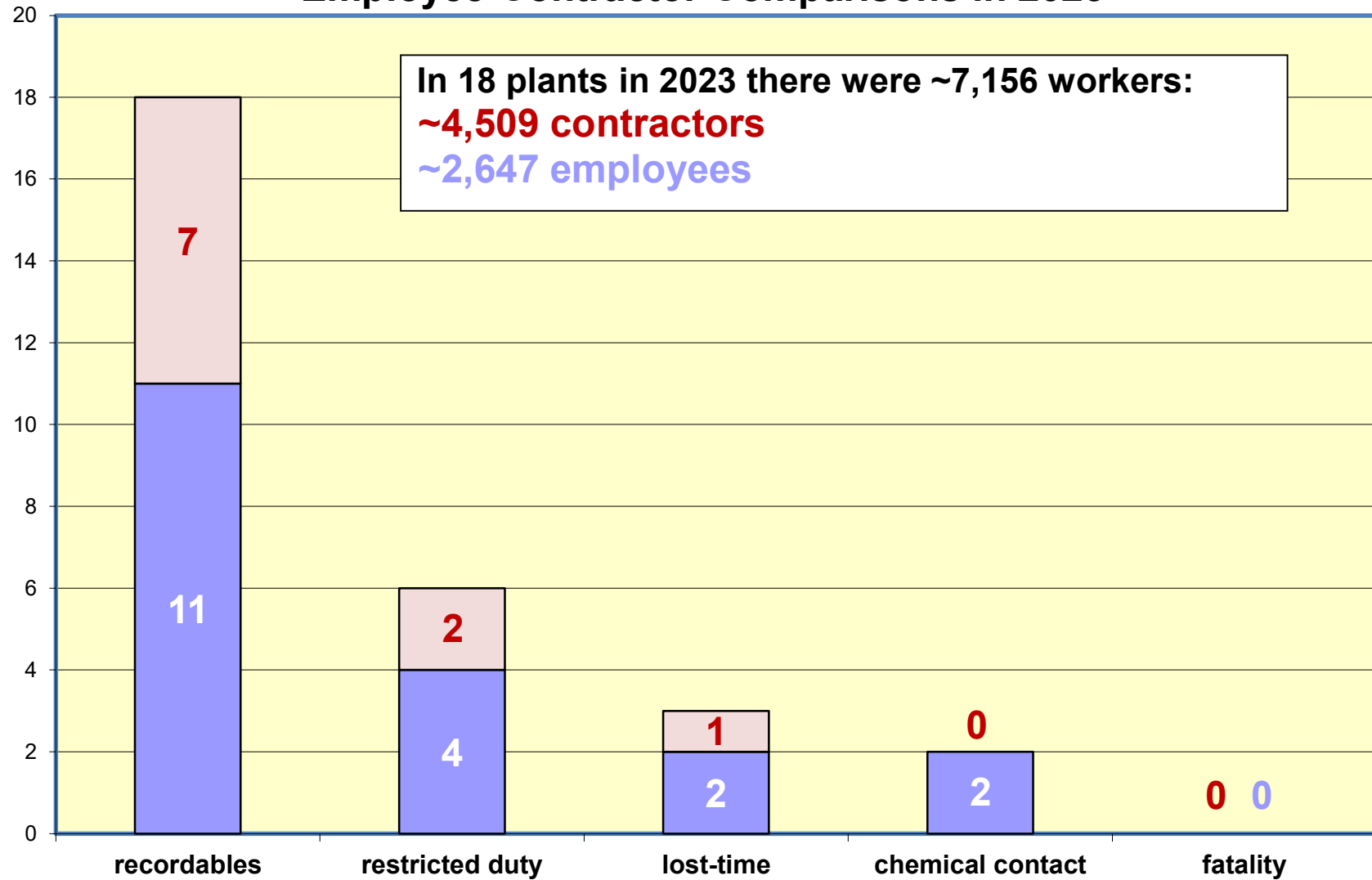
* no contractor hours

**In 2023, no recordable injuries resulted from: Repetitive Motion, Work related vehicle accidents, Hearing Shift, Inset Bites/Stings, Improper Use of Tool (Tool Slipping)

Recordables from Chemical Contact or Exposure in 2023



Employee-Contractor Comparisons in 2023



PCAC EMPLOYEE-CONTRACTOR COMPARISON -- NUMBERS OF RECORDABLES for 2023

* no contractor hours

2023 employee-contractor comparison of NUMBERS of cases	Work-Hours		Total Recordables		Restricted Duty		Total Lost-Times		Severity of Lost-Time Cases						Fatalities		Chem Exposure	
	employee (empl)	contractor (contr)	empl	contr	empl	contr	empl	contr	empl less than week	contr less than week	empl 1 wk - 1 mo	contr 1 wk - 1 mo	empl more than month	contr more than month	empl	contr	empl	contr
	Afton Chemical	251,359	60,344	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Air Products*	14,560	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Albemarle (now Ketjen)	385,395	250,930	1	0	1	0	0	0	0	0	0	0	0	0	0	0	1	0
BASF	150,980	98,345	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Chevron Pasadena Refinery	733,941	1,840,971	2	3	1	1	0	0	0	0	0	0	0	0	0	0	0	0
Chevron Phillips Chemical	669,425	610,852	1	1	0	1	0	1	0	0	0	0	0	1	0	0	0	0
Enterprise Products	495,984	61,000	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ethyl	18,013	10,796	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Evonik	102,689	40,503	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Gulf Coast Authority	59,122	14,196	2	0	0	0	2	0	0	0	1	0	1	0	0	0	0	0
INEOS Phenol	106,569	130,382	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Intercontinental Terminals	218,452	147,396	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
KM Export Terminal	41,495	12,763	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
KM Pasadena Terminal	374,925	384,118	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
LyondellBasell Houston Refinery	1,327,952	1,503,501	2	0	2	0	0	0	0	0	0	0	0	0	0	0	1	0
Next Wave Energy Partners	78,860	4,022,431	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
OxyChem Pasadena PVC	327,420	149,240	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Sekisui	147,960	41,156	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL numbers	5,505,101	9,378,924	11	7	4	2	2	1	0	0	1	0	1	1	0	0	2	0
weighted avg. rec. rate	employee	contractor	0.40	0.15	0.15	0.04	0.07	0.02	0.00	0.00	0.04	0.00	0.04	0.02	0.00	0.00	0.07	0.00

PCAC EMPLOYEE - CONTRACTOR RECORDABLE RATES FOR 2023

* no contractor hours

2023 employee-contractor comparisons	Work-hours		Total Rate		Restricted Duty Rate		Lost-Time Rate		Fatality Rate	
	employee	contractor	empl	contr	empl	contr	empl	contr	empl	contr
Afton Chemical	251,359	60,344	0.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Air Products*	14,560	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Albemarle (now Ketjen)	385,395	250,930	0.52	0.00	0.52	0.00	0.00	0.00	0.00	0.00
BASF	150,980	98,345	0.00	2.03	0.00	0.00	0.00	0.00	0.00	0.00
Chevron Pasadena Refinery	733,941	1,840,971	0.55	0.33	0.27	0.11	0.00	0.00	0.00	0.00
Chevron Phillips Chemical	669,425	610,852	0.30	0.33	0.00	0.33	0.00	0.33	0.00	0.00
Enterprise Products	495,984	61,000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Ethyl	18,013	10,796	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Evonik	102,689	40,503	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Gulf Coast Authority	59,122	14,196	6.77	0.00	0.00	0.00	6.77	0.00	0.00	0.00
INEOS Phenol	106,569	130,382	0.00	1.53	0.00	0.00	0.00	0.00	0.00	0.00
Intercontinental Terminals	218,452	147,396	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
KM Export Terminal	41,495	12,763	4.82	0.00	0.00	0.00	0.00	0.00	0.00	0.00
KM Pasadena Terminal	374,925	384,118	0.53	0.00	0.00	0.00	0.00	0.00	0.00	0.00
LyondellBasell Houston Refinery	1,327,952	1,503,501	0.30	0.00	0.30	0.00	0.00	0.00	0.00	0.00
Next Wave Energy Partners	78,860	4,022,431	0.00	0.05	0.00	0.00	0.00	0.00	0.00	0.00
OxyChem Pasadena PVC	327,420	149,240	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Sekisui	147,960	41,156	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
TOTALS & WEIGHTED AVERAGES	5,505,101	9,378,924	0.40	0.15	0.15	0.04	0.07	0.02	0.00	0.00
Number of recordables			11	7	4	2	2	1	0	0

PCAC CONTRACTOR RECORDABLE RATES FOR 2023

13 plants with no contractor recordables in 2023

2023 contractor rates in ALPHABETICAL ORDER	contractor work hours	contractor recordable rate
Afton Chemical	60,344	0.00
Air Products*	0	0.00
Albemarle (now Ketjen)	250,930	0.00
BASF	98,345	2.03
Chevron Pasadena Refinery	1,840,971	0.33
Chevron Phillips Chemical	610,852	0.33
Enterprise Products	61,000	0.00
Ethyl	10,796	0.00
Evonik	40,503	0.00
Gulf Coast Authority	14,196	0.00
INEOS Phenol	130,382	1.53
Intercontinental Terminals	147,396	0.00
KM Export Terminal	12,763	0.00
KM Pasadena Terminal	384,118	0.00
LyondellBasell Houston Refinery	1,503,501	0.00
Next Wave Energy Partners	4,022,431	0.05
OxyChem Pasadena PVC	149,240	0.00
Sekisui	41,156	0.00
TOTALS & WEIGHTED AVERAGES	9,378,924	0.15

2023 contractor rates in order FROM BEST TO HIGHEST	contractor work hours	contractor recordable rate
Afton Chemical	60,344	0.00
Air Products*	0	0.00
Albemarle (now Ketjen)	250,930	0.00
Enterprise Products	61,000	0.00
Ethyl	10,796	0.00
Evonik	40,503	0.00
Gulf Coast Authority	14,196	0.00
Intercontinental Terminals	147,396	0.00
KM Export Terminal	12,763	0.00
KM Pasadena Terminal	384,118	0.00
LyondellBasell Houston Refinery	1,503,501	0.00
OxyChem Pasadena PVC	149,240	0.00
Sekisui	41,156	0.00
Next Wave Energy Partners	4,022,431	0.05
Chevron Pasadena Refinery	1,840,971	0.33
Chevron Phillips Chemical	610,852	0.33
INEOS Phenol	130,382	1.53
BASF	98,345	2.03
TOTALS & WEIGHTED AVERAGES	9,378,924	0.15

Number of recordables 7

Median for contractors **0.00**
Range for contractors **0.00 to 2.03**
13 plants with 0.00 for contractors

* no contractor hours

Comparing Recordable Rates within OSHA's Nationwide Industry Groups

2022 NATIONAL DATA	NAICS CODE	INDUSTRY GROUP	2023 Total Plant Recordable Rate	2022 Total Plant Recordable Rate	2022 NAICS group rate
Gulf Coast Authority	2213	Water, Sewage, and Other Systems	5.46	0.00	5.40
Chevron Pasadena Refinery	324110	Petroleum Refineries	0.39	0.54	0.06
LyondellBasell Houston Refinery	324110	Petroleum Refineries	0.14	0.00	
Next Wave Energy Partners	325110	Basic Chemical Manufacturing	0.05	0.85	0.20
INEOS Phenol	325110	Basic Chemical Manufacturing	0.84	1.09	
Air Products*	325120	Industrial Gas Manufacturing	0.00	0.00	1.70
Afton Chemical	325199	All Other Basic Organic Chemical Manufacturing	0.64	0.00	2.10
Albemarle (now Ketjen)	325199	All Other Basic Organic Chemical Manufacturing	0.31	0.00	
BASF	325199	All Other Basic Organic Chemical Manufacturing	0.80	0.59	
Ethyl	325199	All Other Basic Organic Chemical Manufacturing	0.00	0.00	
Evonik	325199	All Other Basic Organic Chemical Manufacturing	0.00	1.85	
Chevron Phillips Chemical	325211	Plastics Material and Resin Manufacturing	0.31	0.31	
OxyChem Pasadena PVC	325211	Plastics Material and Resin Manufacturing	0.00	0.85	1.90
Sekisui	325211	Plastics Material and Resin Manufacturing	0.00	0.00	1.90
Enterprise Products	4247	Petroleum Products Merchant Wholesalers	0.00	0.00	
Intercontinental Terminals	49319	Other Warehousing and Storage	0.00	0.00	3.60
KM Export Terminal	493190	Other Warehousing and Storage	3.69	0.00	
KM Pasadena Terminal	493190	Other Warehousing and Storage	0.26	0.57	

After the passage of North American Free Trade Agreement (NAFTA), the North American Industry Classification System (NAICS) replaced the former Standard Industrial Code (SIC) system as a way to classify 20 major industrial sectors and the businesses within each.

Based on 2022 OSHA data, all but 3 PCAC plants performed better than those in the same industry code group in 2022 and all but 5 in 2023.

Source of OSHA data is US Bureau of Labor Statistics nonfatal workplace injuries and illnesses found at www.bls.gov

* no contractor hours

OSHA VPP Participation by PCAC Plants

PLANT NAME	2023 Total Recordable Rate	OSHA Voluntary Protection Program (VPP) since —	Working toward OSHA VPP or OSHA Challenge
Afton Chemical	0.64		
Air Products*	0.00		
Albemarle (now Ketjen)	0.31		
BASF	0.80		
Chevron Pasadena Refinery	0.39		
Chevron Phillips Chemical	0.31	2015	
Enterprise Products	0.00		
Ethyl	0.00		
Evonik	0.00		
Gulf Coast Authority	5.46		
INEOS Phenol	0.84		
Intercontinental Terminals	0.00		VPP and Challenge Since 2017
KM Export Terminal	3.69		
KM Pasadena Terminal	0.26		
LyondellBasell Houston Refinery	0.14		
Next Wave Energy Partners	0.05		
OxyChem Pasadena PVC	0.00	1991	
Sekisui	0.00		
Totals		2 VPP	1 VPP/ Challenge

3 plants in or working on OSHA VPP or Challenge Programs

0.19 weighted avg.

15 remaining plants

0.25 weighted avg

IN LISTED PROGRAMS

	work hours	no. of recordables
Chevron Phillips Chemical	1,280,277	2
Intercontinental Terminals	365,848	0
OxyChem Pasadena PVC	476,660	0
	2,122,785	2

WEIGHTED AVERAGE

0.19

NOT IN LISTED PROGRAMS

work hours no. of recordables

Afton Chemical	311,703	1
Air Products*	14,560	0
Albemarle (now Ketjen)	636,325	1
BASF	249,325	1
Chevron Pasadena Refinery	2,574,912	5
Enterprise Products	556,984	0
Ethyl	28,809	0
Evonik	143,192	0
Gulf Coast Authority	73,318	2
INEOS Phenol	236,951	1
KM Export Terminal	54,258	1
KM Pasadena Terminal	759,043	1
LyondellBasell Houston Refinery	2,831,453	2
Next Wave Energy Partners	4,101,291	1
Sekisui	189,116	0
	12,761,240	16

WEIGHTED AVERAGE

0.25

* no contractor hours

PCAC ANNUAL SAFETY REPORT FOR CALENDAR YEAR 2023 -- DETAILS PLANT BY PLANT

summary charts are based on these data -- * = no contractor hours

Additional details in other worksheets

Plant details for 2023	Work hours	No. of OSHA-recordable injuries and illnesses	No. of recordables that were restricted duty cases	No. of recordables that were lost-time cases	No. of lost-times less than a week	No. of lost-times 1 week to 1 month	No. of lost-times more than a month	No. of fatalities	No. of recordables from chemical contact, exposure	Fatality Rate	Restricted Duty Rate	Lost-Time Rate	Total Recordable Rate for 2023
Afton Chemical employees	251,359	1	0	0	0	0	0	0	0	0.00	0.00	0.00	0.80
Afton Chemical contractors	60,344	0	0	0	0	0	0	0	0	0.00	0.00	0.00	0.00
Afton Chemical plant total	311,703	1	0	0	0	0	0	0	0	0.00	0.00	0.00	0.64
Air Products employees	14,560	0	0	0	0	0	0	0	0	0.00	0.00	0.00	0.00
Air Products contractors*	0	0	0	0	0	0	0	0	0	0.00	0.00	0.00	0.00
Air Products plant total*	14,560	0	0	0	0	0	0	0	0	0.00	0.00	0.00	0.00
Albemarle employees	385,395	1	1	0	0	0	0	0	1	0.00	0.52	0.00	0.52
Albemarle contractors	250,930	0	0	0	0	0	0	0	0	0.00	0.00	0.00	0.00
Albemarle plant total	636,325	1	1	0	0	0	0	0	1	0.00	0.31	0.00	0.31
<i>Name change to Ketjen (Jan. 2024)</i>													
BASF Pasadena employees	150,980	0	0	0	0	0	0	0	0	0.00	0.00	0.00	0.00
BASF Pasadena contractors	98,345	1	0	0	0	0	0	0	0	0.00	0.00	0.00	2.03
BASF Pasadena plant total	249,325	1	0	0	0	0	0	0	0	0.00	0.00	0.00	0.80
Chevron Pasadena Refinery employees	733,941	2	1	0	0	0	0	0	0	0.00	0.27	0.00	0.55
Chevron Pasadena Refinery contractors	1,840,971	3	1	0	0	0	0	0	0	0.00	0.11	0.00	0.33
Chevron Pasadena Refinery plant total	2,574,912	5	2	0	0	0	0	0	0	0.00	0.16	0.00	0.39
<i>Was Crown Central Petroleum, then Pasadena Refining (until 2019)</i>													
Chevron Phillips Chemical employees	669,425	1	0	0	0	0	0	0	0	0.00	0.00	0.00	0.30
Chevron Phillips Chemical contractors	610,852	1	1	1	0	0	1	0	0	0.00	0.33	0.33	0.33
Chevron Phillips Chemical plant total	1,280,277	2	1	1	0	0	1	0	0	0.00	0.16	0.16	0.31
Enterprise Products employees	495,984	0	0	0	0	0	0	0	0	0.00	0.00	0.00	0.00
Enterprise Products contractors	61,000	0	0	0	0	0	0	0	0	0.00	0.00	0.00	0.00
Enterprise Products plant total	556,984	0	0	0	0	0	0	0	0	0.00	0.00	0.00	0.00
Ethyl employees	18,013	0	0	0	0	0	0	0	0	0.00	0.00	0.00	0.00
Ethyl contractors	10,796	0	0	0	0	0	0	0	0	0.00	0.00	0.00	0.00
Ethyl plant total	28,809	0	0	0	0	0	0	0	0	0.00	0.00	0.00	0.00

Plant details for 2023	Work hours	No. of OSHA-recordable injuries and illnesses	No. of recordables that were restricted duty cases	No. of recordables that were lost-time cases	No. of lost-times less than a week	No. of lost-times 1 week to 1 month	No. of lost-times more than a month	No. of fatalities	No. of recordables from chemical contact, exposure	Fatality Rate	Restricted Duty Rate	Lost-Time Rate	Total Recordable Rate for 2023
Evonik employees	102,689	0	0	0	0	0	0	0	0	0.00	0.00	0.00	0.00
Evonik contractors	40,503	0	0	0	0	0	0	0	0	0.00	0.00	0.00	0.00
Evonik plant total	143,192	0	0	0	0	0	0	0	0	0.00	0.00	0.00	0.00
<i>Joined 2017</i>													
Gulf Coast Authority employees	59,122	2	0	2	0	1	1	0	0	0.00	0.00	6.77	6.77
Gulf Coast Authority contractors	14,196	0	0	0	0	0	0	0	0	0.00	0.00	0.00	0.00
Gulf Coast Authority plant total	73,318	2	0	2	0	1	1	0	0	0.00	0.00	5.46	5.46
<i>Joined 2009</i>													
INEOS Phenol employees	106,569	0	0	0	0	0	0	0	0	0.00	0.00	0.00	0.00
INEOS Phenol contractors	130,382	1	0	0	0	0	0	0	0	0.00	0.00	0.00	1.53
INEOS Phenol plant total	236,951	1	0	0	0	0	0	0	0	0.00	0.00	0.00	0.84
<i>Was Georgia Gulf until 2014. Became Axiall, then became INEOS Phenol in 2015.</i>													
Intercontinental Terminals empl	218,452	0	0	0	0	0	0	0	0	0.00	0.00	0.00	0.00
Intercontinental Terminals contr	147,396	0	0	0	0	0	0	0	0	0.00	0.00	0.00	0.00
Intercontinental Terminals total	365,848	0	0	0	0	0	0	0	0	0.00	0.00	0.00	0.00
<i>Joined 2014 when under construction</i>													
KM Export Terminal employees	41,495	1	0	0	0	0	0	0	0	0.00	0.00	0.00	4.82
KM Export Terminal contractors	12,763	0	0	0	0	0	0	0	0	0.00	0.00	0.00	0.00
KM Export Terminal plant total	54,258	1	0	0	0	0	0	0	0	0.00	0.00	0.00	3.69
<i>Joined 2017</i>													
KM Pasadena Terminal employees	374,925	1	0	0	0	0	0	0	0	0.00	0.00	0.00	0.53
KM Pasadena Terminal contractors	384,118	0	0	0	0	0	0	0	0	0.00	0.00	0.00	0.00
KM Pasadena Terminal plant total	759,043	1	0	0	0	0	0	0	0	0.00	0.00	0.00	0.26
LyondellBasell Houston Refinery empl	1,327,952	2	2	0	0	0	0	0	1	0.00	0.30	0.00	0.30
LyondellBasell Houston Refinery contr	1,503,501	0	0	0	0	0	0	0	0	0.00	0.00	0.00	0.00
LyondellBasell Houston Refinery total	2,831,453	2	2	0	0	0	0	0	1	0.00	0.14	0.00	0.14
Next Wave Energy Partners employees	78,860	0	0	0	0	0	0	0	0	0.00	0.00	0.00	0.00
Next Wave Energy Partners contractors	4,022,431	1	0	0	0	0	0	0	0	0.00	0.00	0.00	0.05
Next Wave Energy Partners plant total	4,101,291	1	0	0	0	0	0	0	0	0.00	0.00	0.00	0.05
<i>Joined 2022 when under construction</i>													
OxyChem Pasadena PVC employees	327,420	0	0	0	0	0	0	0	0	0.00	0.00	0.00	0.00
OxyChem Pasadena PVC contractors	149,240	0	0	0	0	0	0	0	0	0.00	0.00	0.00	0.00
OxyChem Pasadena PVC plant total	476,660	0	0	0	0	0	0	0	0	0.00	0.00	0.00	0.00
<i>Name change from OxyVinyls</i>													

Plant details for 2023	Work hours	No. of OSHA-recordable injuries and illnesses	No. of recordables that were restricted duty cases	No. of recordables that were lost-time cases	No. of lost-times less than a week	No. of lost-times 1 week to 1 month	No. of lost-times more than a month	No. of fatalities	No. of recordables from chemical contact, exposure	Fatality Rate	Restricted Duty Rate	Lost-Time Rate	Total Recordable Rate for 2023
Sekisui employees	147,960	0	0	0	0	0	0	0	0	0.00	0.00	0.00	0.00
Sekisui contractors	41,156	0	0	0	0	0	0	0	0	0.00	0.00	0.00	0.00
Sekisui plant total	189,116	0	0	0	0	0	0	0	0	0.00	0.00	0.00	0.00
<i>was Celanese Chemicals until 2009</i>													

HISTORY OF PCAC TOTAL RECORDABLE RATES (TRR) 2000 - 2023

blanks mean plant was not yet built or in PCAC

Historic Plant Details	2023 TRR	2022 TRR	2021 TRR	2020 TRR	2019 TRR	2018 TRR	2017 TRR	2016 TRR	2015 TRR	2014 TRR	2013 TRR	2012 TRR	2011 TRR	2010 TRR	2009 TRR	2008 TRR	2007 TRR	2006 TRR	2005 TRR	2004 TRR	2003 TRR	2002 TRR	2001 TRR	2000 TRR
Afton Chemical employees	0.80	0.00	0.76	0.00	0.00	3.08	0.00	0.00	0.00															
Afton Chemical contractors	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00															
Afton Chemical plant total	0.64	0.00	0.52	0.00	0.00	2.63	0.00	0.00	0.00															
<i>Was part of Ethyl. Became Afton in fall 2015.</i>																								
Air Products employees	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.66	0.00	1.85	0.00	0.00	1.98	0.00	0.96	0.97	1.04	0.00	1.62	0.78	0.00	1.60	0.80	0.00
Air Products contractors	0.00	*	*	0.00	0.00	0.00	0.00	0.18	0.36	1.74	0.67	0.00	0.63	0.00	0.52	0.00	0.00	1.64	1.52	0.00	0.58	0.00	0.00	1.18
Air Products plant total	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.33	0.25	1.78	0.44	0.00	1.29	0.00	0.67	0.47	0.51	0.69	1.57	0.46	0.33	1.06	0.44	0.41
Albemarle employees	0.52	0.00	0.00	0.00	0.53	0.49	0.49	0.00	0.44	0.00	0.40	0.39	0.00	1.87	0.33	0.00	0.62	0.97	0.32	0.85	0.51	0.74	1.45	0.60
Albemarle contractors	0.00	0.00	0.00	0.00	0.93	0.00	0.00	0.00	1.57	0.00	0.00	0.83	0.00	0.00	0.00	0.00	0.00	2.27	0.00	2.40	0.00	0.00	0.00	2.60
Albemarle total	0.31	0.00	0.00	0.00	0.67	0.31	0.30	0.00	0.85	0.00	0.29	0.53	0.00	1.35	0.27	0.00	0.56	1.14	0.28	1.01	0.47	0.68	1.34	0.75
<i>Name change to Ketjen in Jan. 2024</i>																								
BASF Pasadena employees	0.00	1.34	0.00	0.00	1.19	1.07	1.01	0.00	0.00	0.00	0.00	0.00	0.00	0.99	2.05	0.00	0.00	0.71	0.00	0.00	1.99	1.68	0.87	0.00
BASF Pasadena contractors	2.03	0.00	0.00	0.00	1.92	0.00	0.00	0.00	0.00	0.00	2.46	0.00	0.00	0.00	2.04	0.00	0.00	0.80	0.00	0.00	0.00	1.94	2.84	2.68
BASF Pasadena plant total	0.80	0.59	0.00	0.00	0.74	1.37	0.27	0.00	0.00	0.00	0.68	0.00	0.00	0.70	2.04	0.00	0.00	0.77	0.00	0.00	1.17	1.76	1.33	0.62
Chevron Pasadena Refinery employees	0.55	0.53	0.79	0.24	1.02	0.78	0.00	0.51	1.21	0.84	0.00	1.90	1.90	0.51	0.47	0.74	1.84	1.33	1.53					
Chevron Pasadena Refinery contractors	0.33	0.56	0.00	0.15	0.00	0.00	0.00	0.00	0.87	0.28	0.50	0.32	0.23	0.72	0.65	0.75	1.02	1.89	2.55					
Chevron Pasadena Refinery plant total	0.39	0.54	0.45	0.18	0.48	0.42	0.00	0.25	1.00	0.56	0.26	1.18	0.77	0.62	0.58	0.75	1.31	1.73	2.09					
<i>Was Crown Central Petroleum, then Pasadena Refining</i>																								
Chevron Phillips Chemical employees	0.30	0.24	0.48	0.25	0.25	0.00	0.47	0.21	0.65	0.22	1.64	0.84	0.70	0.14	0.41	1.14	1.17	0.90	0.37	0.49	1.07	1.15	1.89	12.00
Chevron Phillips Chemical contractors	0.33	0.37	0.00	0.00	0.46	0.00	0.00	0.31	0.33	0.00	0.47	0.64	0.60	0.84	0.41	1.65	1.20	1.46	0.66	0.48	0.43	0.52	0.77	16.62
Chevron Phillips Chemical plant total	0.31	0.31	0.25	0.15	0.36	0.00	0.31	0.25	0.52	0.12	1.09	0.77	0.67	0.37	0.41	1.28	1.18	1.04	0.45	0.49	0.94	0.90	1.42	13.39
Enterprise Products employees	0.00	0.00	0.00	1.61	4.83	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.97	0.00	14.17							
Enterprise Products contractors	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	12.14	0.57	0.00	**							
Enterprise Products plant total	0.00	0.00	0.00	1.55	2.19	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.14	1.24	0.00	14.17							
<i>New in 2007. Did not track contractor hours at that time.</i>																								
Ethyl employees	0.00	0.00	10.98	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.65	0.00	0.00	0.00	0.85	0.93	0.98	0.00	1.07	1.08	0.00	0.94	1.18
Ethyl contractors	0.00	0.00	*	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.58	2.61	0.00	0.00	2.69	6.96	0.00		
Ethyl plant total	0.00	0.00	10.98	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.28	0.00	0.00	0.00	1.10	1.62	0.77	0.00	1.54	1.87	0.00	0.94	1.18
Evonik employees	0.00	2.89	0.00	0.00	0.00	0.00	3.00																	
Evonik contractors	0.00	0.00	0.00	0.00	0.00	0.00	0.00																	
Evonik plant total	0.00	1.85	0.00	0.00	0.00	0.00	2.36																	
<i>Joined in 2017</i>																								
Gulf Coast Authority employees	6.77	0.00	3.39	3.43	0.00	0.00	0.00	0.00	0.00	3.02	3.11	6.84	0.00	0.00	3.89									
Gulf Coast Authority contractors	0.00	0.00	21.42	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00									
Gulf Coast Authority plant total	5.46	0.00	5.86	3.04	0.00	0.00	0.00	0.00	0.00	2.45	2.60	5.49	0.00	0.00	3.26									
INEOS Phenol employees	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.17	0.00	0.00	0.00	2.23	0.00	0.00	4.05	0.00	0.00	2.41	0.00
INEOS Phenol contractors	1.53	2.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	5.19	0.00	0.00	0.00	0.00	0.00	2.60	1.96
INEOS Phenol plant total	0.84	1.09	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.45	0.00	0.00	0.00	3.12	0.00	0.00	3.08	0.00	0.00	3.28	2.10
<i>Was Georgia Gulf until 2014. Became Axial, then became INEOS Phenol in 2015.</i>																								

Historic Plant Details	2023 TRR	2022 TRR	2021 TRR	2020 TRR	2019 TRR	2018 TRR	2017 TRR	2016 TRR	2015 TRR	2014 TRR	2013 TRR	2012 TRR	2011 TRR	2010 TRR	2009 TRR	2008 TRR	2007 TRR	2006 TRR	2005 TRR	2004 TRR	2003 TRR	2002 TRR	2001 TRR	2000 TRR
Intercontinental Terminals empl	0.00	0.00	0.00	1.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00												
Intercontinental Terminals contr	0.00	0.00	0.00	0.00	0.43	0.43	0.00	0.28	0.78	0.00	0.00													
Intercontinental Terminals total	0.00	0.00	0.00	0.55	0.33	0.35	0.00	0.25	0.71	0.00	0.00													
Joined 2014 when under construction																								
KM Export Terminal employees	4.82	0.00	0.00	0.00	0.00	0.00	0.00																	
KM Export Terminal contractors	0.00	0.00	*	*	*	*	0.00																	
KM Export Terminal plant total	3.69	0.00	0.00	0.00	0.00	0.00	0.00																	
Joined in 2017																								
KM Pasadena Terminal employees	0.53	0.58	1.73	0.41	0.00	1.24	0.00	0.00	0.00	0.00	0.00	0.56	0.00	0.60	0.80	2.64	1.51	0.87	0.00	3.77	3.00	2.75	1.04	1.03
KM Pasadena Terminal contractors	0.00	0.56	0.00	0.97	0.97	0.00	0.00	0.00	0.00	0.00	0.95	*	0.00	1.02	0.00	1.28	1.12			0.91				
KM Pasadena Terminal plant total	0.26	0.57	1.37	0.41	0.62	1.24	0.00	0.00	0.00	0.00	0.30	0.56	0.00	0.75	0.71	2.18	1.25	0.87	0.00	2.47	3.00	2.75	1.04	1.03
KMPT had 2 contractor injuries in 2020 but was unable to provide contractor hours; KMPT had 2 contractor injuries in 2018 but was unable to provide contractor hours																								
LyondellBasell Houston Refinery empl	0.30	0.00	0.54	0.11	0.11	0.09	0.19	0.25	0.08	0.00	0.23	0.38	0.07	0.60	0.94	0.84	0.43	0.54	0.88	0.48	0.63	0.68	1.17	1.07
LyondellBasell Houston Refinery contr	0.00	0.00	0.18	0.09	0.17	0.04	0.05	0.09	0.13	0.42	0.13	0.19	0.43	0.43	0.55	0.80	0.47	0.40	0.64	0.23	0.57	0.58	0.79	0.64
LyondellBasell Houston Refinery total	0.14	0.00	0.32	0.09	0.15	0.06	0.09	0.14	0.11	0.24	0.16	0.26	0.30	0.49	0.74	0.81	0.46	0.44	0.73	0.37	0.60	0.63	0.98	0.86
Next Wave Energy Partners employees	0.00	0.00																						
Next Wave Energy Partners contractors	0.05	0.88																						
Next Wave Energy Partners plant total	0.05	0.85																						
Joined 2022 when under construction																								
OxyChem Pasadena PVC employees	0.00	0.61	1.89	0.00	0.63	0.66	1.46	0.00	0.00	0.00	1.32	0.00	0.00	0.66	0.66	0.65	0.00	0.67	1.41	0.00	0.68	1.31	0.66	1.29
OxyChem Pasadena PVC contractors	0.00	1.44	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.53	3.06	0.00	0.00	1.57	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.15	1.34	0.00
OxyChem Pasadena PVC plant total	0.00	0.85	1.30	0.00	0.43	0.46	0.98	0.00	0.00	0.46	1.85	0.00	0.00	0.93	0.45	0.45	0.00	0.46	0.93	0.00	0.44	1.25	0.89	0.77
Allowed Restricted Duty Starting in 2018																								
Sekisui employees	0.00	0.00	1.72	0.00	0.00	1.83	1.84	0.00	0.00	1.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.25	2.44	0.00	0.00	0.00	0.00	0.00
Sekisui contractors	0.00	0.00	0.00	0.00	0.00	0.00	4.49	0.00	2.28	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	4.47	0.00	0.00	0.00	0.00	0.00	0.00
Sekisui plant total	0.00	0.00	1.33	0.00	0.00	1.39	2.61	0.00	1.02	1.29	0.00	0.00	0.00	0.00	0.00	0.00	0.00	3.00	1.54	0.00	0.00	0.00	0.00	0.00
was Celanese Chemicals until 2009																								
HISTORY OF SITES NO LONGER IN PCAC BUT IN TOTALS FOR EARLIER YEARS																								
Crown Central Petroleum employees																					1.93	3.84	2.71	
Crown Central Petroleum contractors																					0.00	0.00	6.77	
Crown Central Petroleum plant total																					1.82	3.64	3.39	2.78
Now Pasadena Refining System. 2000-01 have plant total rates but breakdown between employees and contractors not available.																								
Houston Products Processing empl									0.00	0.00	2.89	3.18	0.00	0.00	3.39	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Houston Products Processing contr *									*	*	*	*	*	*	*	0.00	*	*	0.00	0.00				
Houston Products Processing total *									0.00	0.00	2.89	3.18	0.00	0.00	3.39	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Moved operations to Baytown in 2016.																								
PCI Nitrogen employees §			-----	2.61	2.03	0.69	5.02	0.93	1.51	0.74	1.63	2.69	2.23	2.32	1.10	1.07	2.15	1.68	2.71	0.54	1.69	4.49	11.04	7.77
PCI Nitrogen contractors §			-----	0.00	3.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.45	1.99	0.00	0.00	0.00	0	1.19	0.00	1.55	1.47		
PCI Nitrogen plant total §			-----	2.44	2.30	0.62	4.28	0.71	1.34	0.47	0.99	1.76	2.31	2.20	0.75	0.84	1.61	1.18	2.23	0.39	1.65	3.65	11.04	7.77
§ Resigned in 2022. Did not submit data for 2021. 2001 – used contractors but no data. 2000 – no contractors; employees performed maintenance work. Was Agrifos, then Renlech Nitrogen. 2019: No restricted duty																								
Sun Edison employees									3.02	0.00	1.65	0.00	2.59	0.91	4.72	4.15	2.35	1.35	3.99	2.98	3.48	3.21	4.13	2.75
Sun Edison contractors									0.00	0.00	0.00	0.00	0.00	0.95	0.00	1.80	0.00	0.00	2.38	0.00	0.00	2.50		
Sun Edison plant total									2.85	0.00	1.44	0.00	2.25	0.92	3.13	3.63	2.02	1.17	3.64	2.49	3.05	3.07	4.13	2.75
Was MEMC. Demolished plant in 2016.																								