

Pasadena Citizens' Advisory Council

Annual Report on Worker Safety For Calendar Year 2021

Occupational Safety and Health Administration (OSHA) work-related injury and illness data for employees and contractors in 17 of 18 PCAC plants

FINAL 2.25.2022

PCAC PLANTS INCLUDE...

Refineries that refine crude oil into gasoline and other fuels; chemical plants that make organic and inorganic chemicals, plastics, and fertilizer; 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 contractors -- Air Products, Ethyl Corporation, Kinder Morgan Export Terminal

no restricted duty

§ PCI Nitrogen did not submit worker safety data for the 2021 reporting year

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Highlights

Pasadena CAC Plants in Years	2021	2020	2019	2018	2017	2016	2015	2014	2013	2010	2007	2006	2005	2002	2000
Total work hours	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	15,479,274	15,785,172	13,161,458	12,345,007	
Employee work hours	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	7,347,565	7,204,147	7,036,465		
Contractor work hours	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	8,131,709	8,581,025	6,124,993		
Total workers (est. 2080 per person)	4,926	5,505	6,468	6,753	6,500	7,420	6,899	6,558	7,310	7,064	7,442	7,589	6,328	5,935	
Employees	2,601	3,025	2,917	3,001	3,004	3,108	3,443	3,375	3,522	3,798	3,532	3,464	3,383		
Contractors	2,325	2,480	3,551	3,752	3,495	4,312	3,456	3,183	3,775	3,267	3,909	4,125	2,945		
Recordable injuries or illnesses	22	13	25	18	20	13	34	19	34	45	65	65	60	73	
Employees	19	11	14	15	18	8	19	8	22	25	37	30	34		
Contractors	3	2	11	3	2	5	15	11	12	20	28	35	26		
Number of recordables that were restricted duty cases	6	7	10	4	2	3	7	8	12	13	13	12			
Employees	6	7	6	4	2	1	5	4	9	11	7	7			
Contractors	0	0	4	0	0	2	2	4	3	2	6	5			
Number of recordables that were lost-time cases	16	6	8	9	9	6	15	5	14	16	23	20	19	26	
Employees	16	6	6	8	9	4	10	3	12	12	19	14	13	26	
Contractors	0	0	2	1	0	2	5	2	2	4	4	6	6	0	
Percentage of lost-times	73%	46%	32%	50%	45%	46%	44%	26%	41%	36%	35%	31%	32%	36%	
Number of lost-time cases less than a week	2	2	1	2	1	1	1	1	6	3	4				
Employees	2	2	1	2	1	0	1	1	5	1	4				
Contractors	0	0	0	0	0	1	0	0	1	2	0				
Number of lost-time cases 1 week to 1 month	5	2	0	1	2	2	5	3	2	5	5				
Employees	5	2	0	1	2	1	1	2	2	4	4				
Contractors	0	0	0	0	0	1	4	1	0	1	1				
Number of lost-time cases more than a month	9	2	6	6	6	3	9	1	6	8	14				
Employees	9	2	5	5	6	3	8	0	5	7	11				
Contractors	0	0	1	1	0	0	1	1	1	1	3				
Fatalities	0	1	0	0	0	0	1	0	0	0	1	0	0	0	1
Employee or Contractor		Employee													

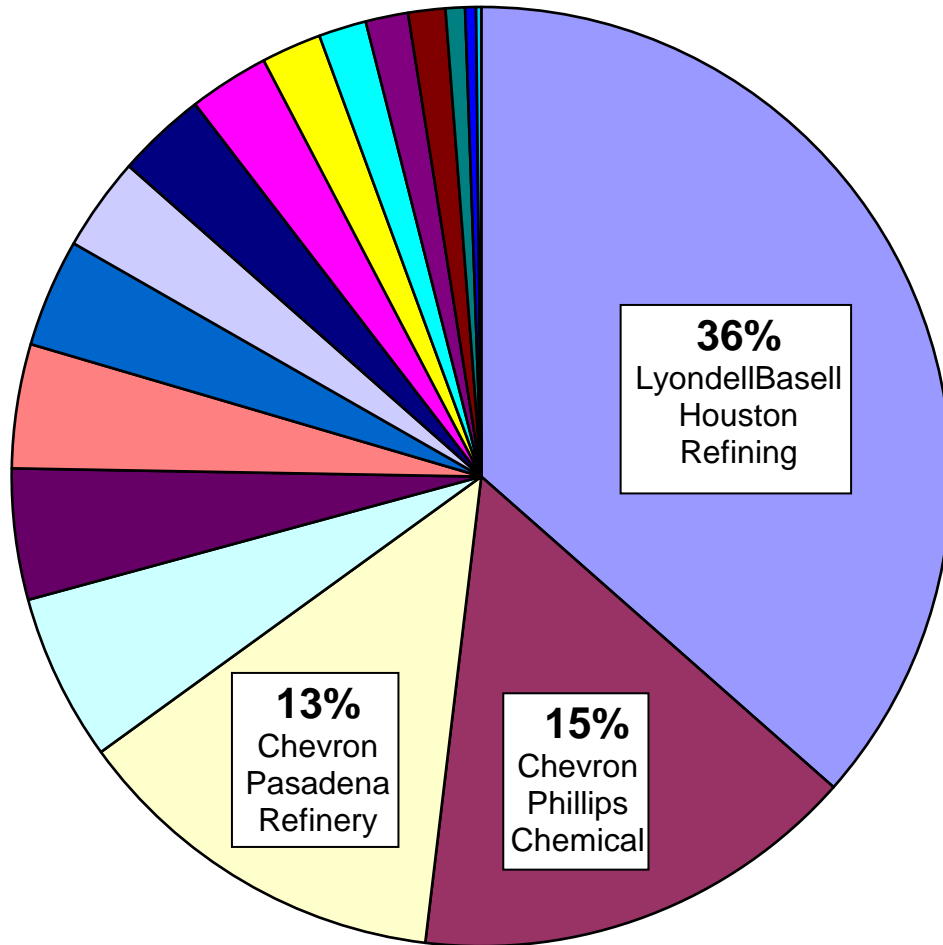
Highlights

Pasadena CAC Plants in Years	2021	2020	2019	2018	2017	2016	2015	2014	2013	2010	2007	2006	2005	2002	2000
Number of recordables from chemical exposure or contact	0	1	2	1	5	0	6	1	2	2	6				
Employees	0	1	2	1	5	0	6	1	2	1	4				
Contractors	0	0	0	0	0	0	0	0	0	1	2				
Number of recordables from COVID-19 from workplace exposure	3														
Employees	3														
Contractors	0														
* 2020 is first year to report															
Weighted average of plant recordable rates	0.43	0.23	0.37	0.26	0.30	0.17	0.47	0.28	0.45	0.61	0.84	0.82	0.91	1.18	
Employees	0.70	0.35	0.46	0.48	0.58	0.25	0.53	0.23	0.60	0.63	1.01	0.83	0.97		
Contractors	0.12	0.08	0.30	0.08	0.06	0.11	0.42	0.33	0.31	0.59	0.69	0.82	0.85		
Simple average of plant recordable rates	1.32	0.47	0.46	0.49	0.62	0.12	0.48	0.38	0.76	0.65	1.85	0.95	0.96	1.47	2.64
Median of plant recordable rates	0.25	0.00	0.24	0.18	0.00	0.00	0.06	0.00	0.30	0.56	1.18	0.82	0.59	1.06	1.03
Employees	0.48	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.51	0.99				
Contractors	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.58	0.24				
Number of plants with 0.00 for both employees & contractors	9	10	8	8	10	11	9	9	5	6	4	2	5	4	
Employees	9	10	10	9	10	11	12	11	9	7	4				
Contractors	11	14	11	13	16	12	11	12	10	7	7				
Most consecutive 0.00 rates for both	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	HPP 4 yrs				
5-year average	0.48	0.47	0.42	0.40	0.43	0.58	0.65	0.75	0.81	0.65					
voluntary audit programs															
Certified in OSHA Voluntary Protection Program (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	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					
** Question removed beginning in 2020			2	1	2	2	3	4	5	4					

Plant Size by Work Hours in 2021

10,246,081 Total Work Hours

65% of total hours worked in 3 plants with more than 1 million work hours each



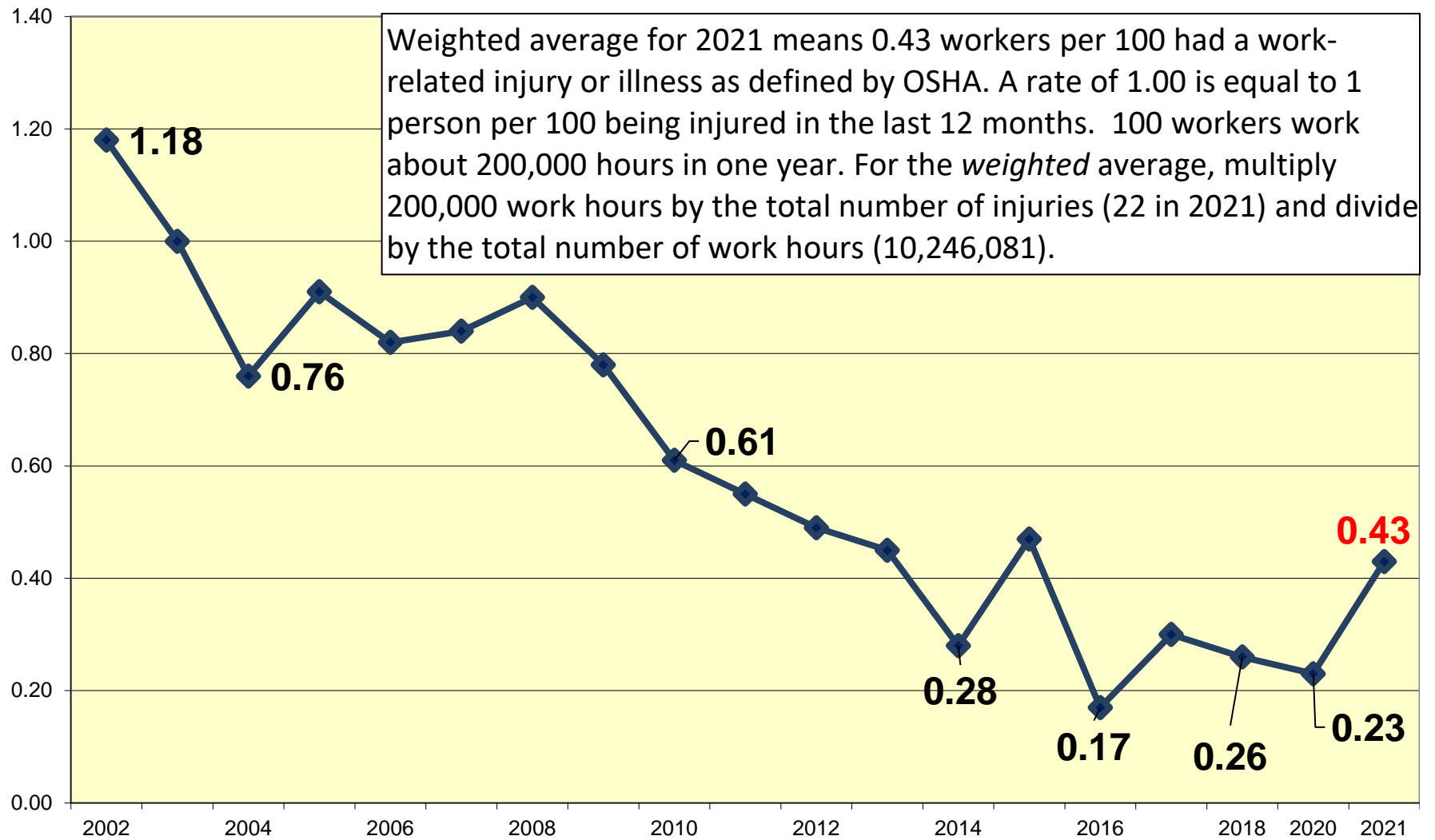
LyondellBasell Houston Refining	3,739,759
Chevron Phillips Chemical	1,578,439
Chevron Pasadena Refinery	1,344,327
Albemarle	588,957
OxyVinyls Pasadena PVC	461,760
KM Liquids Terminals	437,650
Afton Chemical	381,128
INEOS Phenol	330,227
Intercontinental Terminals	315,569
BASF	282,708
Enterprise Products	211,763
Evonik	167,953
Sekisui	150,058
Air Products*	131,040
Gulf Coast Authority	68,311
KM Export Terminals*	38,220
Ethyl*	18,212

PCAC WORK-HOURS, NUMBERS OF INCIDENTS, RATES, AVERAGES in 2021

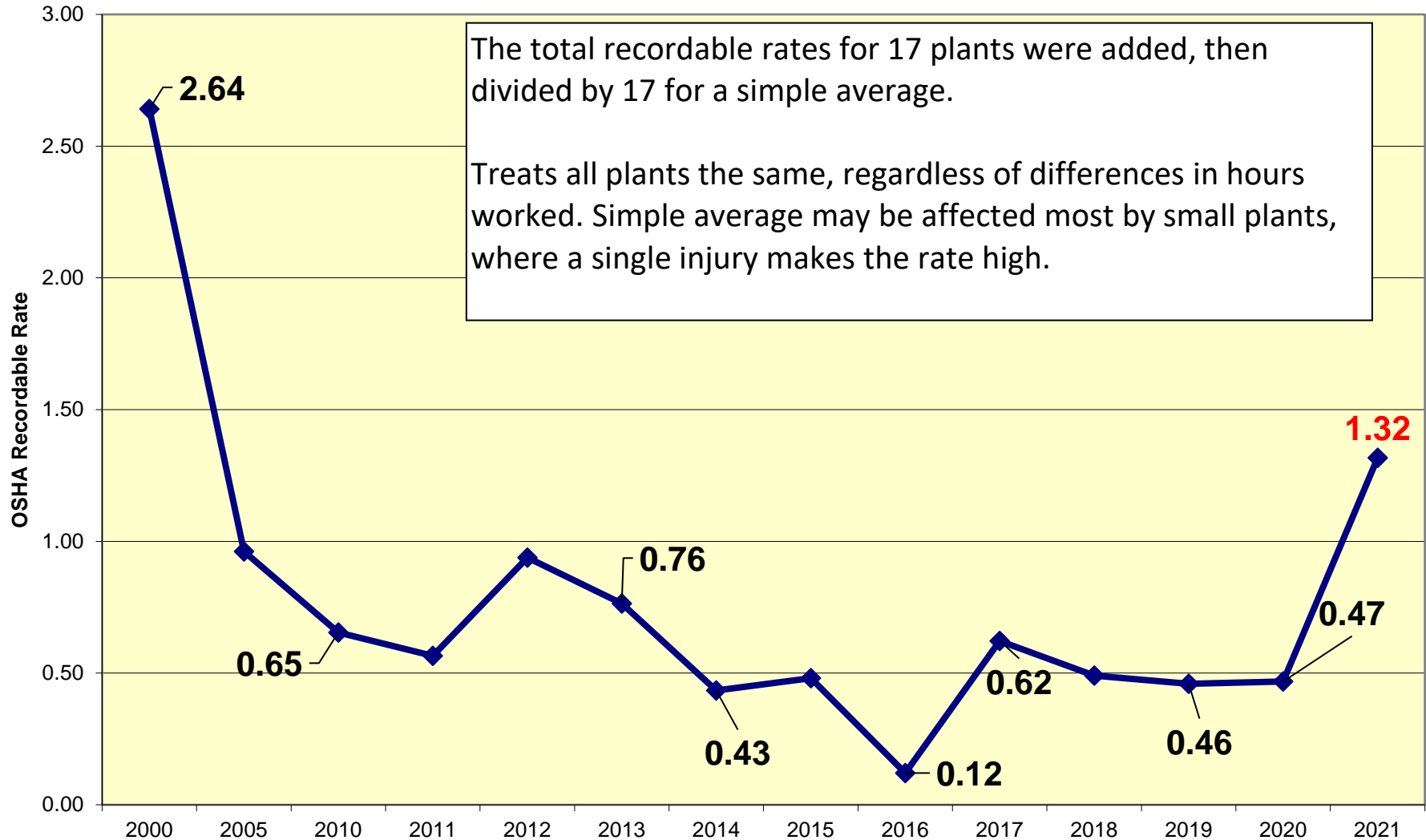
Approximate full-time equivalent employee count = work hours divided by 2080 (hours one person works in a year)

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	No. due to COVID-19 workplace exposure	Fatality rate	Total restricted duty rate	Total lost-time rate	Total recordable rate	
LyondellBasell Houston Refining	3,739,759	6	0	4	1	0	3	0	0	0	0.00	0.00	0.21	0.32	
Chevron Phillips Chemical	1,578,439	2	2	2	0	2	0	0	0	0	0.00	0.25	0.25	0.25	
Chevron Pasadena Refinery	1,344,327	3	0	2	1	0	1	0	0	1	0.00	0.00	0.30	0.45	
Albemarle	588,957	0	0	0	0	0	0	0	0	0	0.00	0.00	0.00	0.00	
OxyVinyls Pasadena PVC	461,760	3	0	3	0	1	2	0	0	0	0.00	0.00	1.30	1.30	
KM Liquids Terminals	437,650	3	3	3	0	1	2	0	0	0	0.00	1.37	1.37	1.37	
Afton Chemical	381,128	1	1	0	0	0	0	0	0	0	0.00	0.52	0.00	0.52	
INEOS Phenol	330,227	0	0	0	0	0	0	0	0	0	0.00	0.00	0.00	0.00	
Intercontinental Terminals	315,569	0	0	0	0	0	0	0	0	0	0.00	0.00	0.00	0.00	
BASF	282,708	0	0	0	0	0	0	0	0	0	0.00	0.00	0.00	0.00	
Enterprise Products	211,763	0	0	0	0	0	0	0	0	0	0.00	0.00	0.00	0.00	
Evonik	167,953	0	0	0	0	0	0	0	0	0	0.00	0.00	0.00	0.00	
Sekisui	150,058	1	0	1	0	1	0	0	0	1	0.00	0.00	1.33	1.33	
Air Products*	131,040	0	0	0	0	0	0	0	0	0	0.00	0.00	0.00	0.00	
Gulf Coast Authority	68,311	2	0	0	0	0	0	0	0	0	0.00	0.00	0.00	5.86	
KM Export Terminals*	38,220	0	0	0	0	0	0	0	0	0	0.00	0.00	0.00	0.00	
Ethyl*	18,212	1	0	1	0	0	1	0	0	1	0.00	0.00	10.98	10.98	
PCI Nitrogen §	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	
totals & simple average	10,246,081	22	6	16	2	5	9	0	0	3	0.00	0.13	0.93	1.32	
			5 restricted duty cases became lost-times and are thus counted in both categories.									Fatality rate	restricted duty rate	lost-time rate	recordable rate
weighted averages		0.43	0.12	0.31	0.04	0.10	0.18	0.00	0.00	0.06					
* no contractors															
§ PCI Nitrogen did not submit worker safety data for the 2021 reporting year															

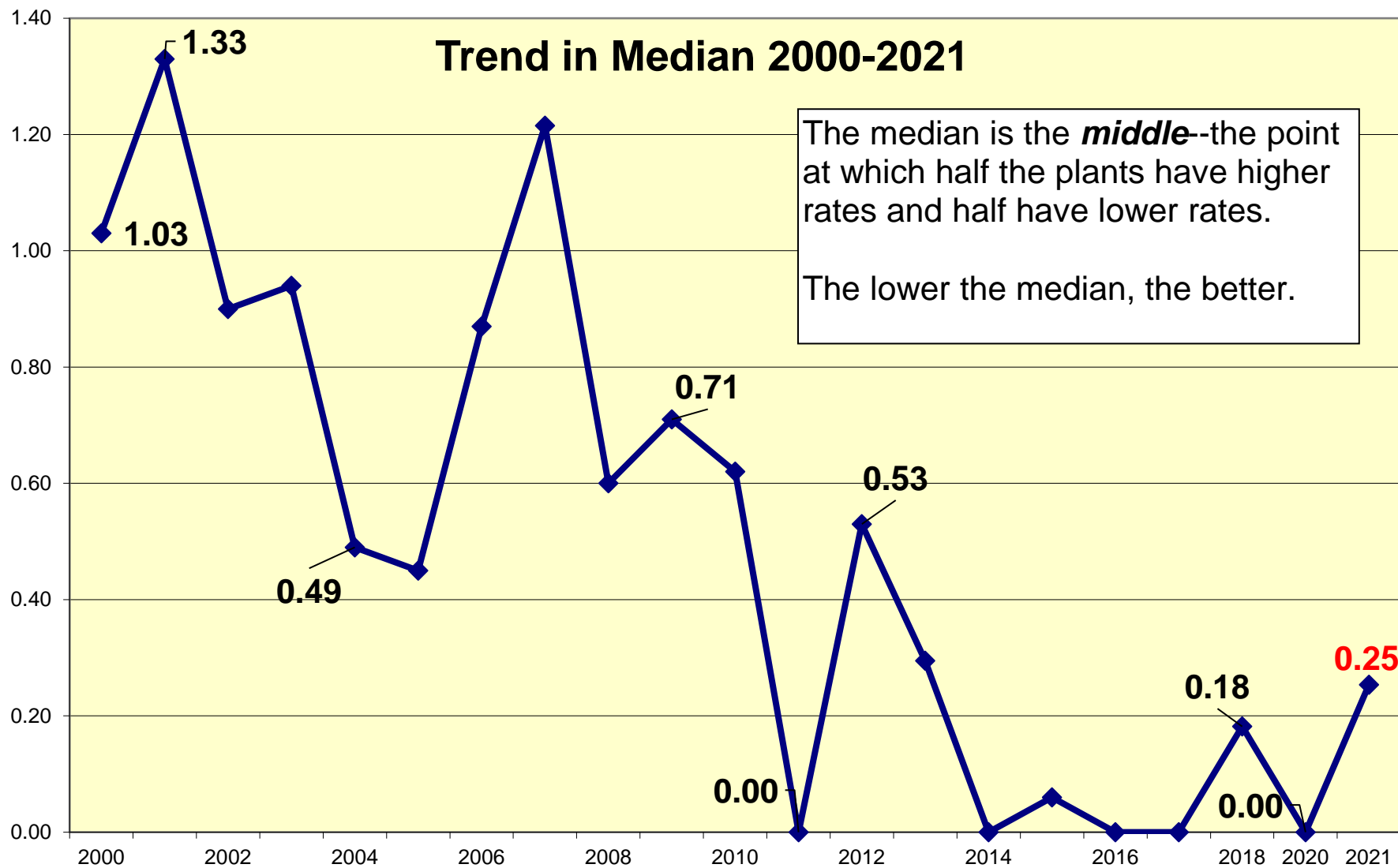
Trend in Weighted Averages 2021



Trend in Simple Average 2021



ANNUAL REPORT ON SAFETY FOR CALENDAR YEAR 2021														
Pasadena Citizens' Advisory Council														
TOTAL RECORDABLE RATES FOR 17 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
Afton Chemical								0.00	0.00	0.00	2.63	0.00	0.00	0.52
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
Albemarle	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
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
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
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
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
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
Evonik										2.36	0.00	0.00	0.00	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
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
Intercontinental Terminals						0.00	0.00	0.71	0.25	0.00	0.35	0.33	0.55	0.00
KM Export Terminals*										0.00	0.00	0.00	0.00	0.00
KM Liquids Terminals	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
LyondellBasell Houston Refining	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
OxyVinyls 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
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	-----
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
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						
Site History Sun Edison	2.75	3.64	0.92	2.25	0.00	1.44	0.00	2.85						
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
	2000	2005	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
* no contractors														
§ PCI Nitrogen did not submit worker safety data for the 2021 reporting year														



2021 TOTAL RECORDABLE RATES WITH RANGE & MEDIAN

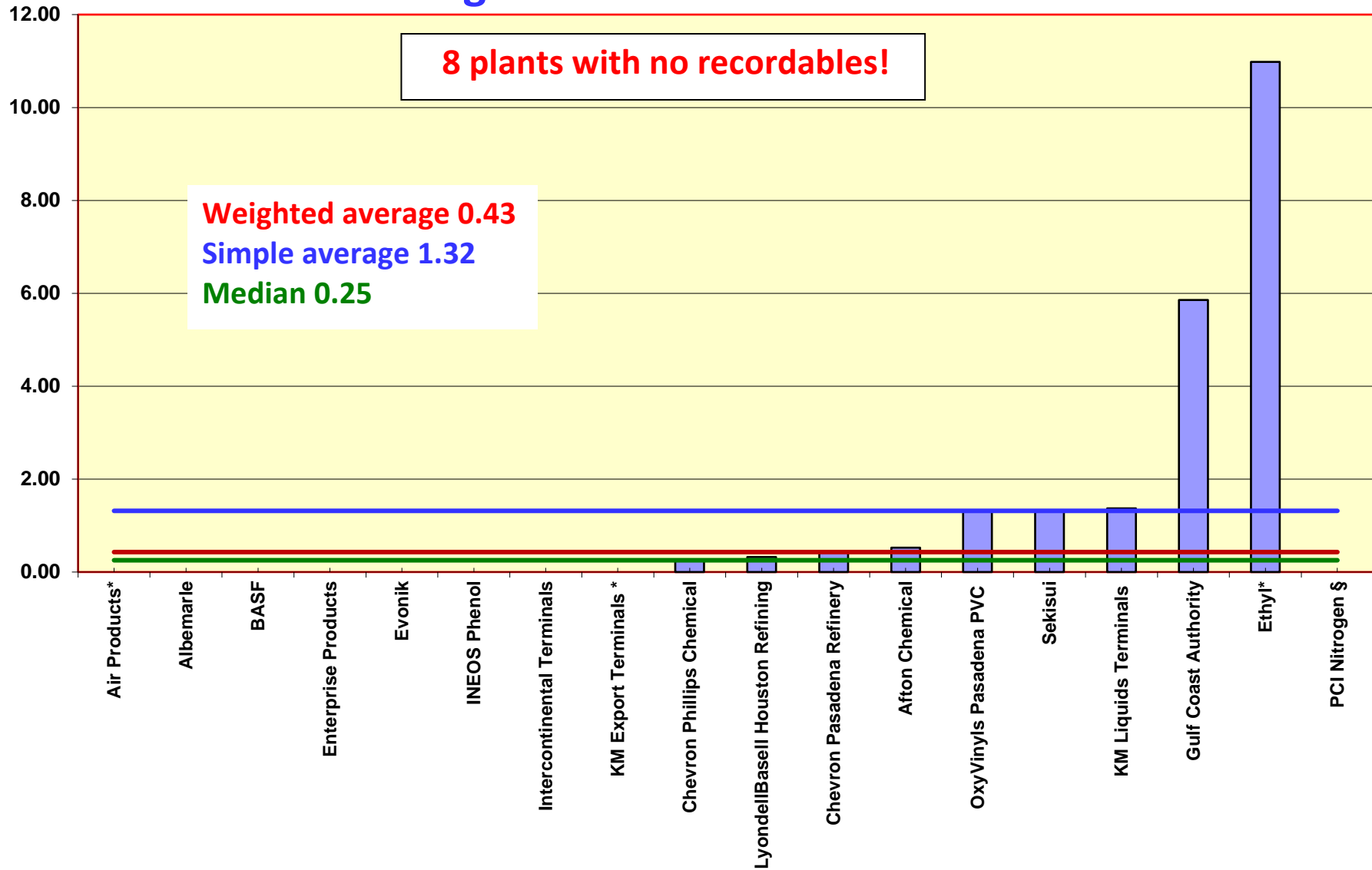
median is the middle--half of the plants have higher rates and half have lower rates

PCAC Plants - Ranking Lowest to Highest 2021 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	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	Air Products*
Albemarle	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	Albemarle
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	0.00	BASF
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	Enterprise Products
Evonik																		2.36	0.00	0.00	0.00	0.00	0.00	Evonik
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	0.00	INEOS Phenol
Intercontinental Terminals														0.00	0.00	0.71	0.25	0.00	0.35	0.33	0.55	0.00	0.00	Intercontinental Terminals
KM Export Terminals*																		0.00	0.00	0.00	0.00	0.00	0.00	KM Export Terminals *
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	0.25	Chevron Phillips Chemical
LyondellBasell Houston Refining	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	0.32	LyondellBasell Houston Refining
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	0.45	Chevron Pasadena Refinery
Afton Chemical																0.00	0.00	0.00	2.63	0.00	0.00	0.52	0.52	Afton Chemical
OxyVinyls 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	1.30	OxyVinyls 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	1.33	Sekisui
KM Liquids Terminals	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	0.00	1.24	0.62	0.41	1.37	1.37	KM Liquids Terminals
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	3.04	5.86	5.86	Gulf Coast Authority
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	10.98	Ethyl*
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: 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: 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	0.25	
	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021		

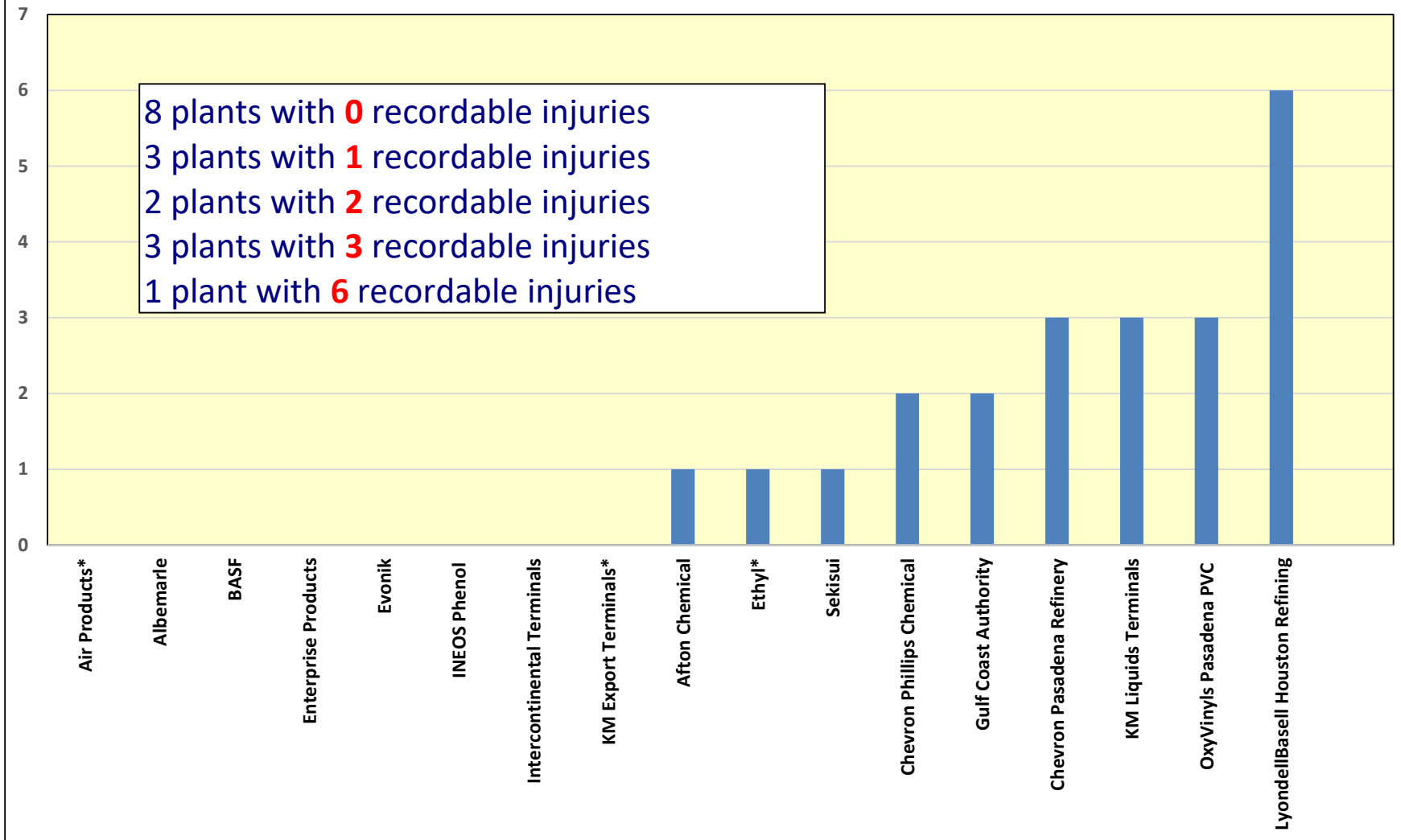
* no contractors

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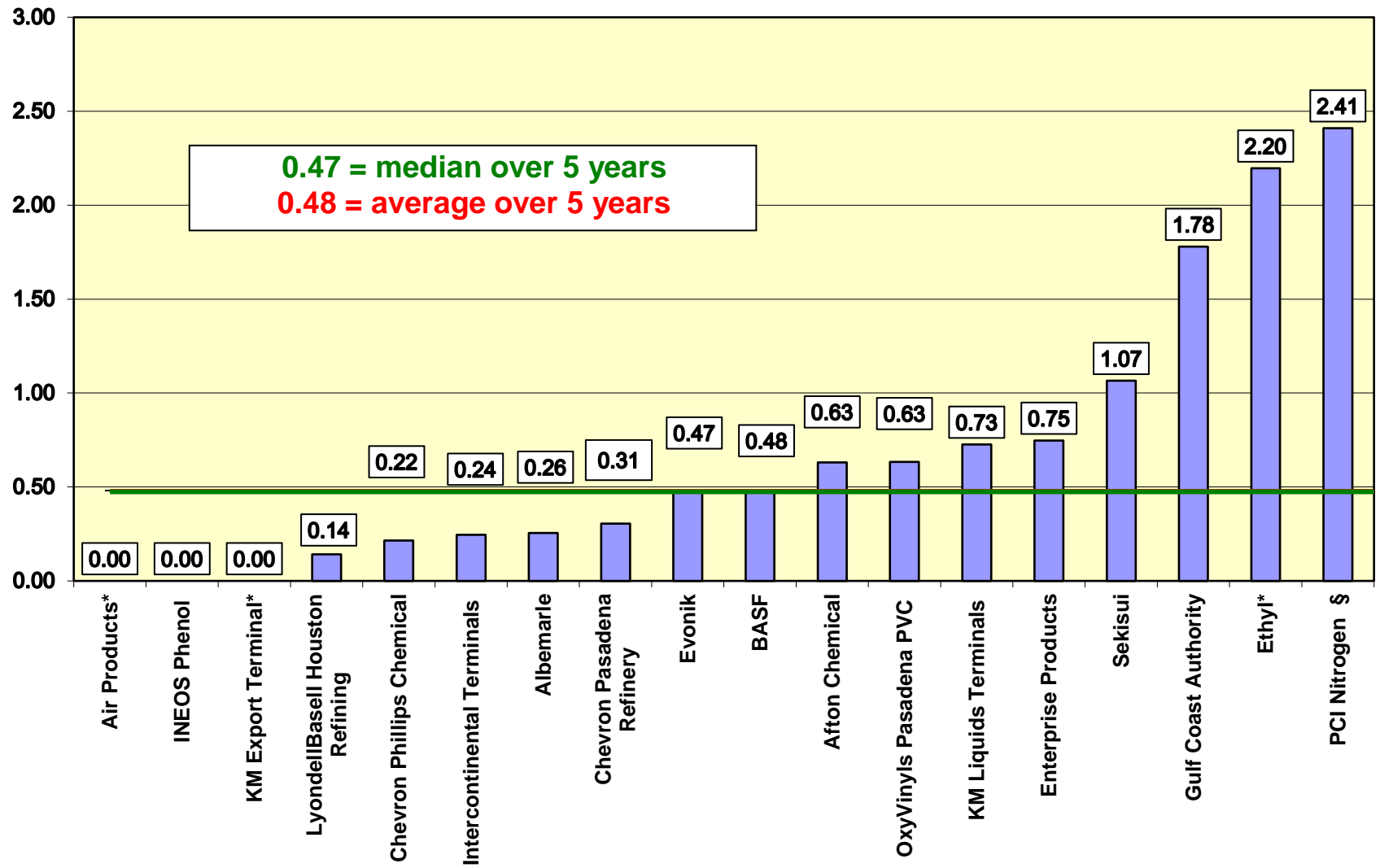
Plant Rankings 2021 Based on Recordable Rates



Plant Rankings by **Number** of Recordables- 2021



5-Year Plant Ranking by Average Recordable *Rates* 2017-2021 for plants in PCAC for 5 or more years



ANNUAL REPORT ON SAFETY FOR CALENDAR YEAR 2021

Pasadena Citizens' Advisory Council

5-YEAR AVERAGES for plants with 5 years of data

Total Recordable Rate (employees and contractors combined)

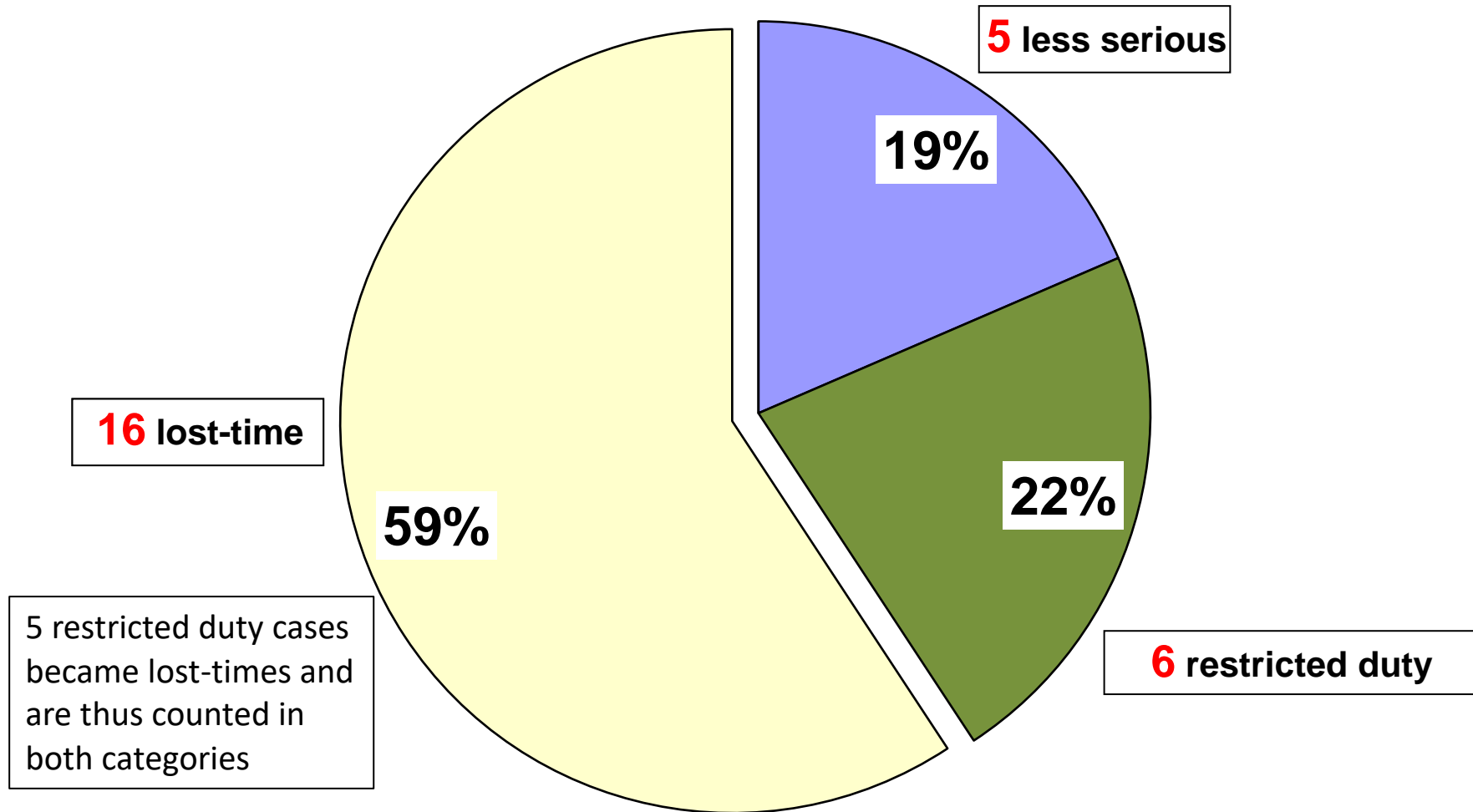
	5-yr avg	2017	2018	2019	2020	2021
Air Products*	0.00	0.00	0.00	0.00	0.00	0.00
INEOS Phenol	0.00	0.00	0.00	0.00	0.00	0.00
KM Export Terminal*	0.00	0.00	0.00	0.00	0.00	0.00
LyondellBasell Houston Refining	0.14	0.09	0.06	0.15	0.09	0.32
Chevron Phillips Chemical	0.22	0.31	0.00	0.36	0.15	0.25
Intercontinental Terminals	0.24	0.00	0.35	0.33	0.55	0.00
Albemarle	0.26	0.30	0.31	0.67	0.00	0.00
Chevron Pasadena Refinery	0.31	0.00	0.42	0.48	0.18	0.45
Evonik	0.47	2.36	0.00	0.00	0.00	0.00
BASF	0.48	0.27	1.37	0.74	0.00	0.00
Afton Chemical	0.63	0.00	2.63	0.00	0.00	0.52
OxyVinyls Pasadena PVC	0.63	0.98	0.46	0.43	0.00	1.30
KM Liquids Terminals	0.73	0.00	1.24	0.62	0.41	1.37
Enterprise Products	0.75	0.00	0.00	2.19	1.55	0.00
Sekisui	1.07	2.61	1.39	0.00	0.00	1.33
Gulf Coast Authority	1.78	0.00	0.00	0.00	3.04	5.86
Ethyl*	2.20	0.00	0.00	0.00	0.00	10.98
PCI Nitrogen §	2.41	4.28	0.62	2.30	2.44	-----
5- yr in order from best to highest	5-yr avg	2017	2018	2019	2020	2021

Average of 5-yr plant rates	0.48	0.43	0.51	0.52	0.53	1.32
Median	0.47					

* no contractors

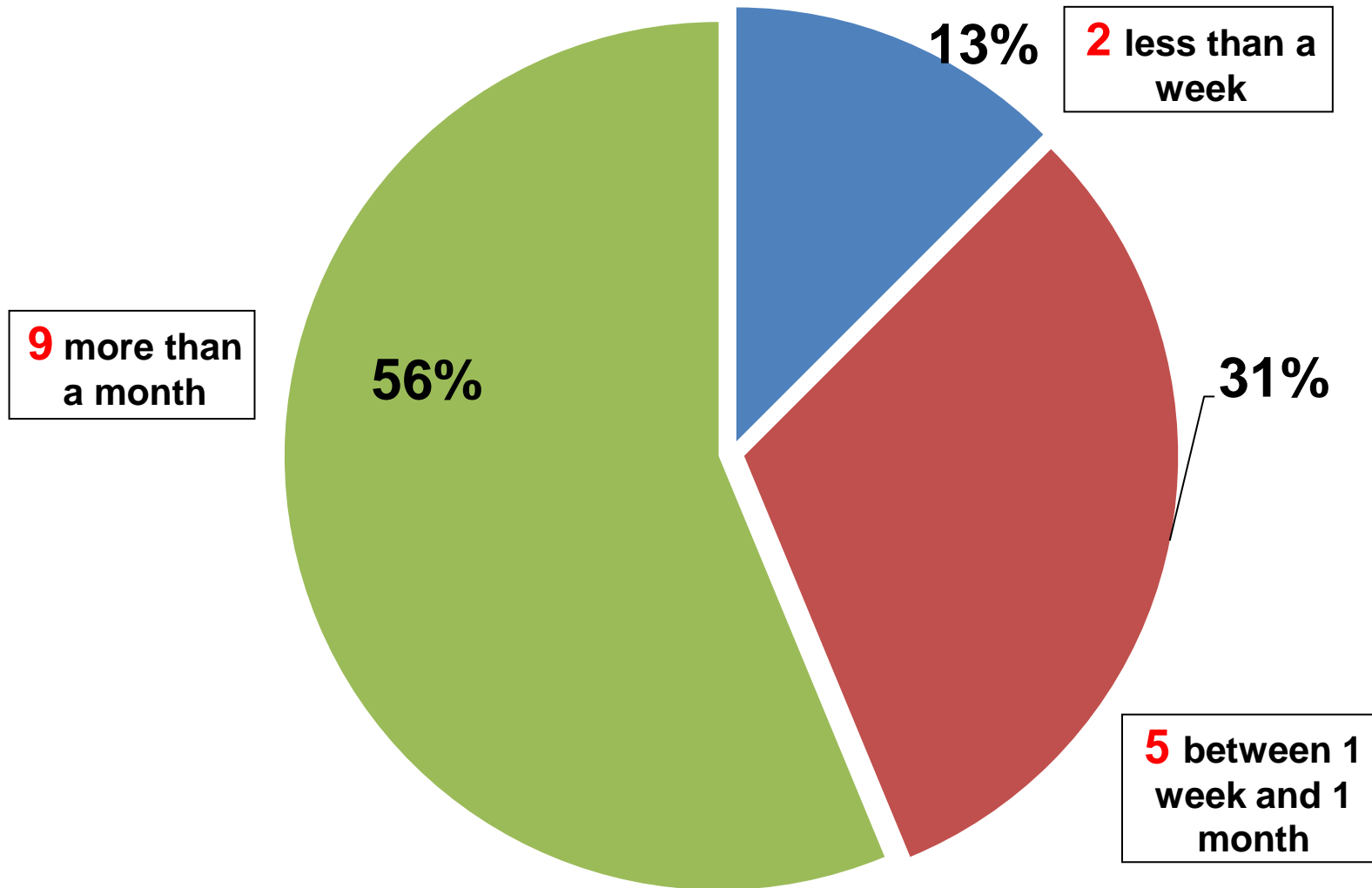
§ PCI Nitrogen did not submit worker safety data for the 2021 reporting year

Severity of Injury or Illness in 2021

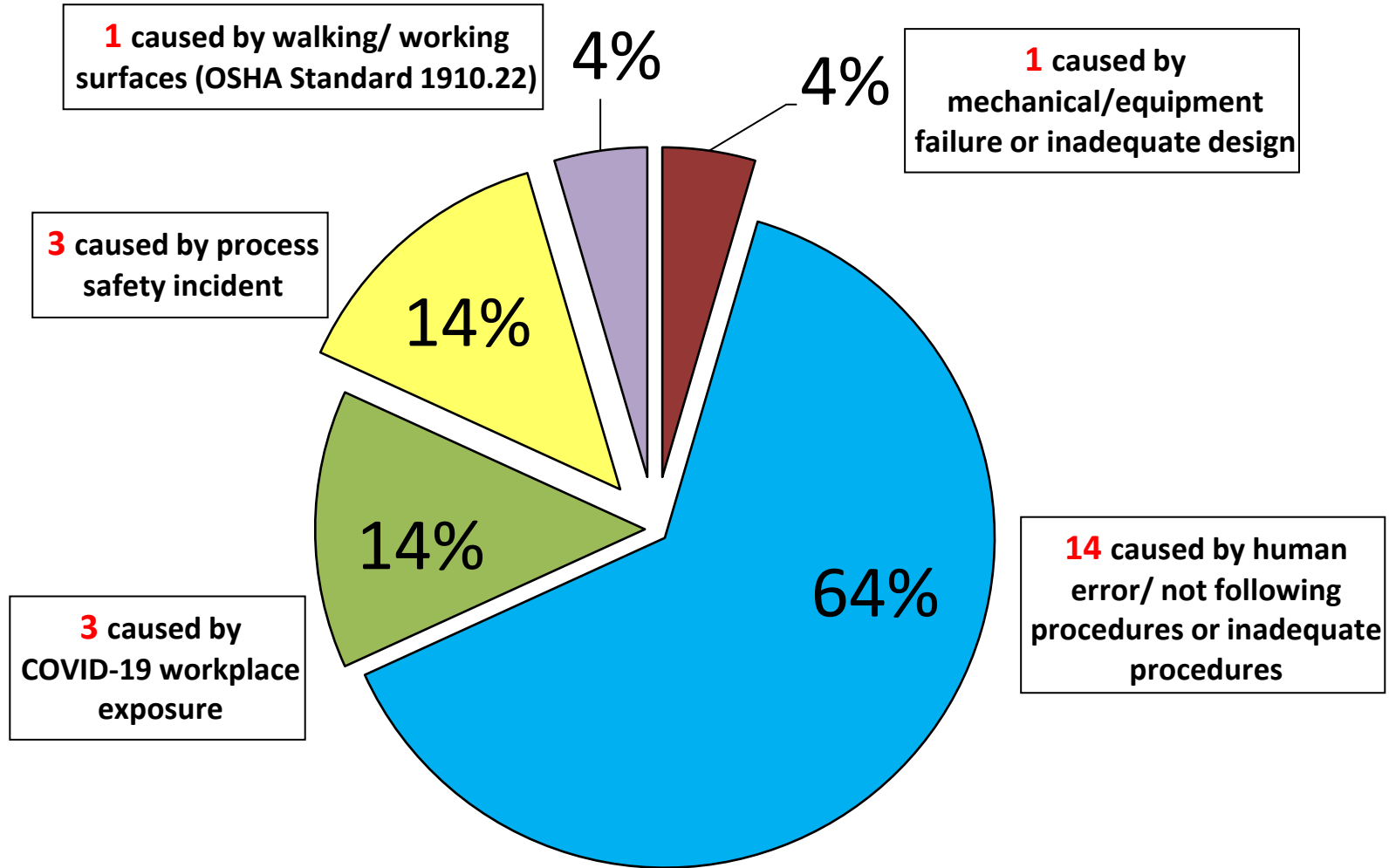


Severity of the 16 Lost-Time Cases in 2021

based on number of days away from work



Cause of the 22 Recordable Injuries - 2021



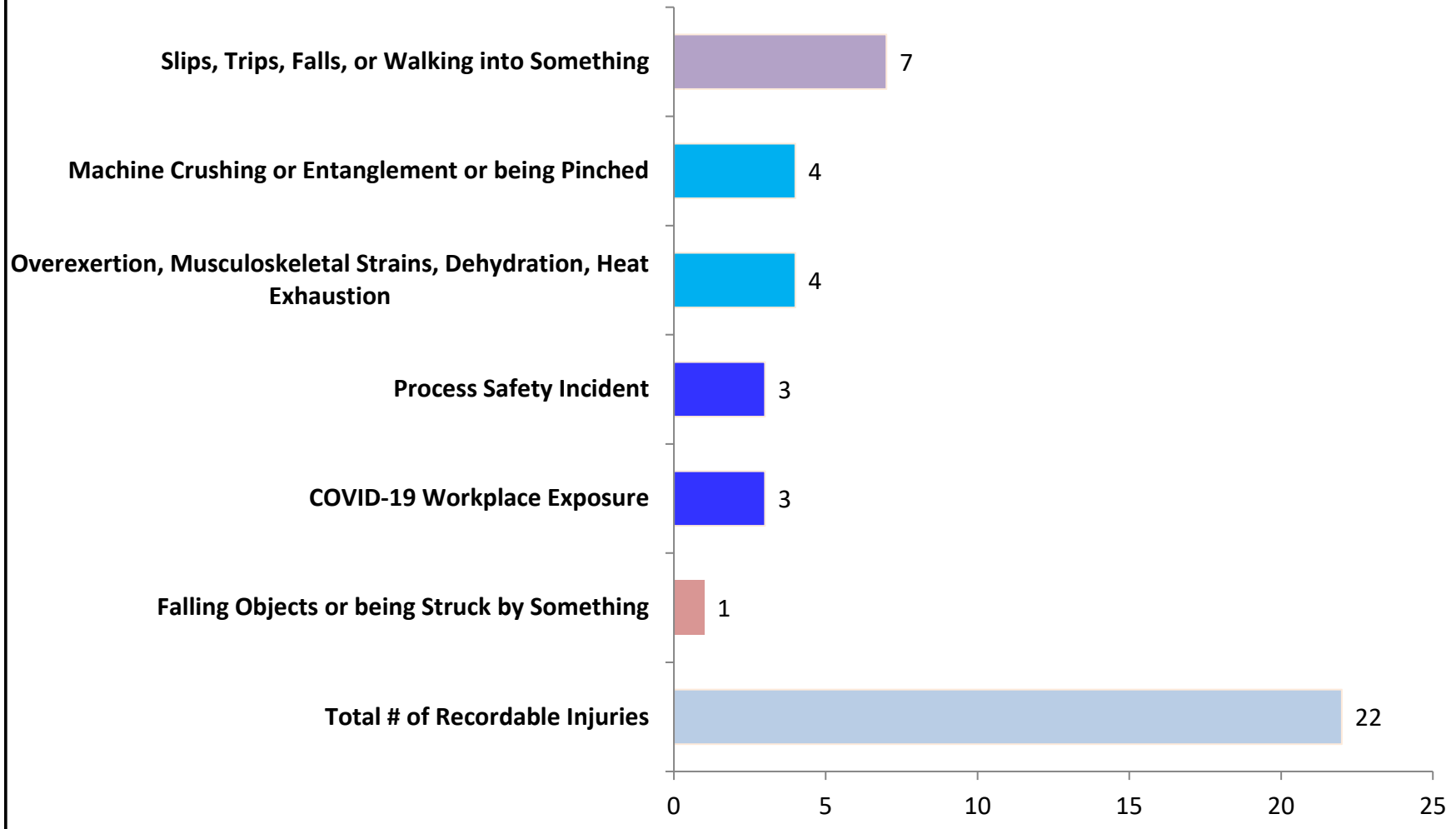
PCAC GENERAL CATEGORIES OF RECORDABLES IN 2021

based on categories plants record on an OSHA 300A log

	Mechanical/ Equipment Failure or Inadequate Design	Human Factor	Process Safety Incident	COVID-19 Workplace Exposure	Walking- Working Surfaces (OHSA Standard 1910.22)	TOTAL
Afton Chemical		1				1
Air Products*						0
Albemarle						0
BASF						0
Chevron Pasadena Refinery			2	1		3
Chevron Phillips Chemical		2				2
Enterprise Products						0
Ethyl*				1		1
Evonik						0
Gulf Coast Authority		2				2
INEOS Phenol						0
Intercontinental Terminals						0
KM Export Terminals*						0
KM Liquids Terminals		3				3
LyondellBasell Houston Refining		5	1			6
OxyVinyls Pasadena PVC	1	1			1	3
PCI Nitrogen §	-----	-----	-----	-----	-----	-----
Sekisui				1		1
TOTAL:	1	14	3	3	1	22
* no contractors						

§ PCI Nitrogen did not submit worker safety data for the 2021 reporting year

Recordable Injuries in 2021 Resulted From



Type of Recordable Injury in 2021

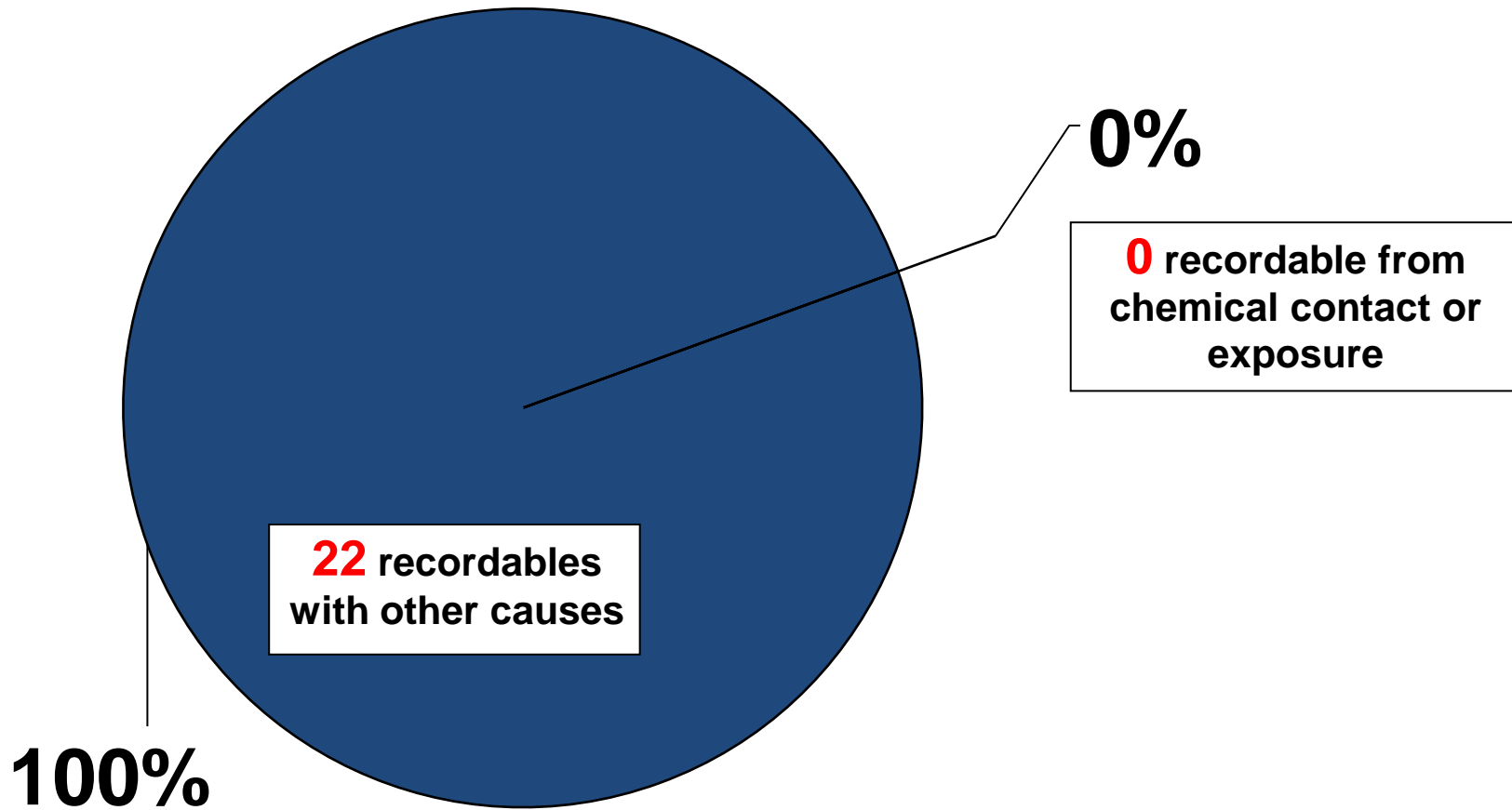
Plant Name	Total Recordable Injury Rate	Total # of Recordable Injuries	Falling Objects or being Struck by Something	COVID-19 Workplace Exposure	Process Safety Incident	Overexertion, Musculoskeletal Strains, Dehydration, Heat Exhaustion	Machine Crushing or Entanglement or being Pinched	Slips, Trips, Falls, or Walking into Something
Afton Chemical	0.52	1					1	
Air Products*	0.00	0						
Albemarle	0.00	0						
BASF	0.00	0						
Chevron Pasadena Refinery	0.45	3		1	2			
Chevron Phillips Chemical	0.25	2				1		1
Enterprise Products	0.00	0						
Ethyl*	10.98	1		1				
Evonik	0.00	0						
Gulf Coast Authority	5.86	2	1				1	
INEOS Phenol	0.00	0						
Intercontinental Terminals	0.00	0						
KM Export Terminals*	0.00	0						
KM Liquids Terminals	1.37	3				1		2
LyondellBasell Houston Refining	0.32	6			1	2	2	1
OxyVinyls Pasadena PVC	1.30	3						3
PCI Nitrogen §	-----	-----						
Sekisui	1.33	1		1				
TOTALS		22	1	3	3	4	4	7

***In 2021, recordable injuries were not a result of the following categories: work related vehicle accidents; something sharp, use of cutting tool or stepping on or bumping into something sharp; chemical exposure; burns not reported as chemical exposure or contact; or improper use of a tool*

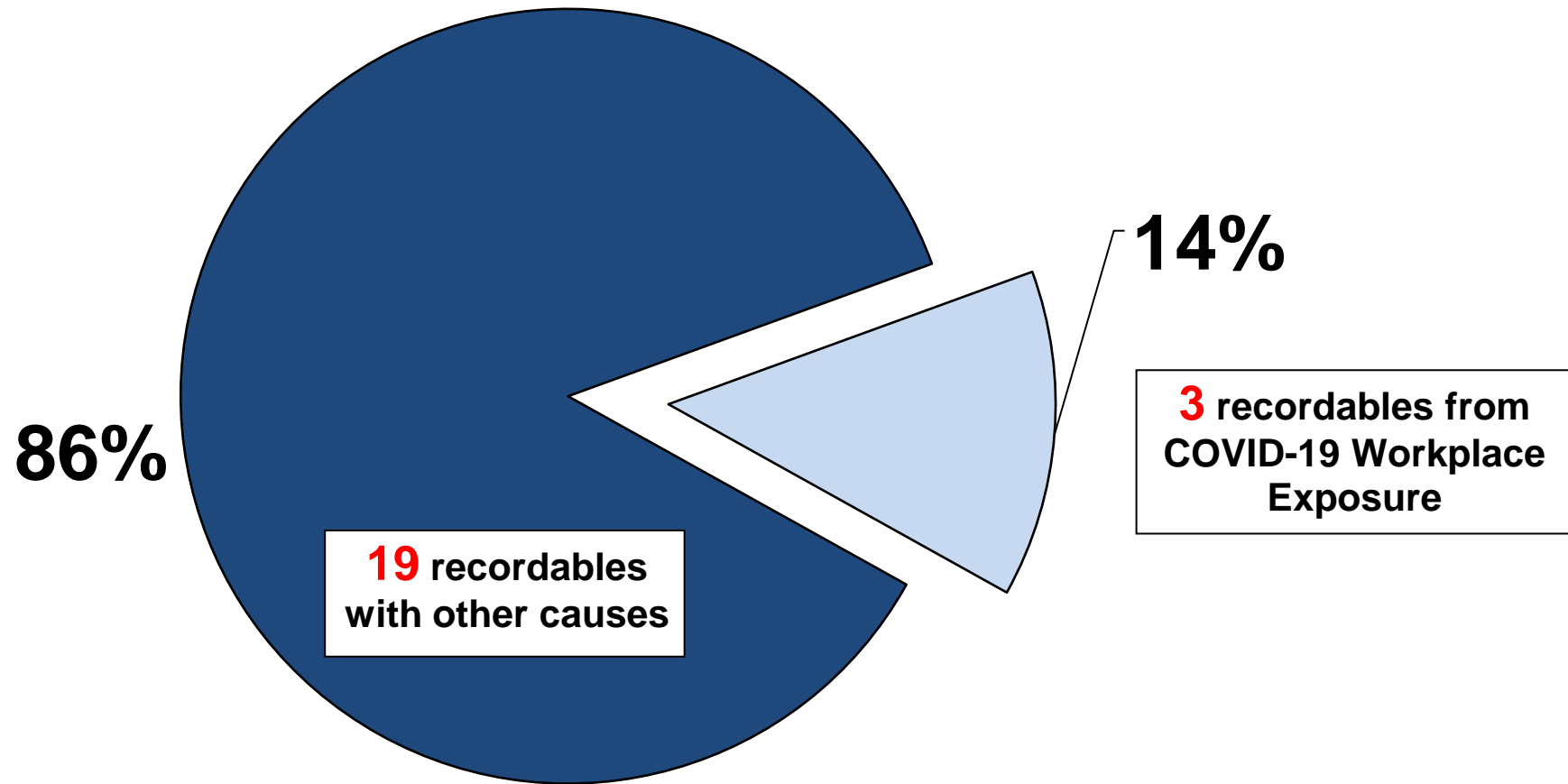
* No Contractors

§ PCI Nitrogen did not submit worker safety data for the 2021 reporting year

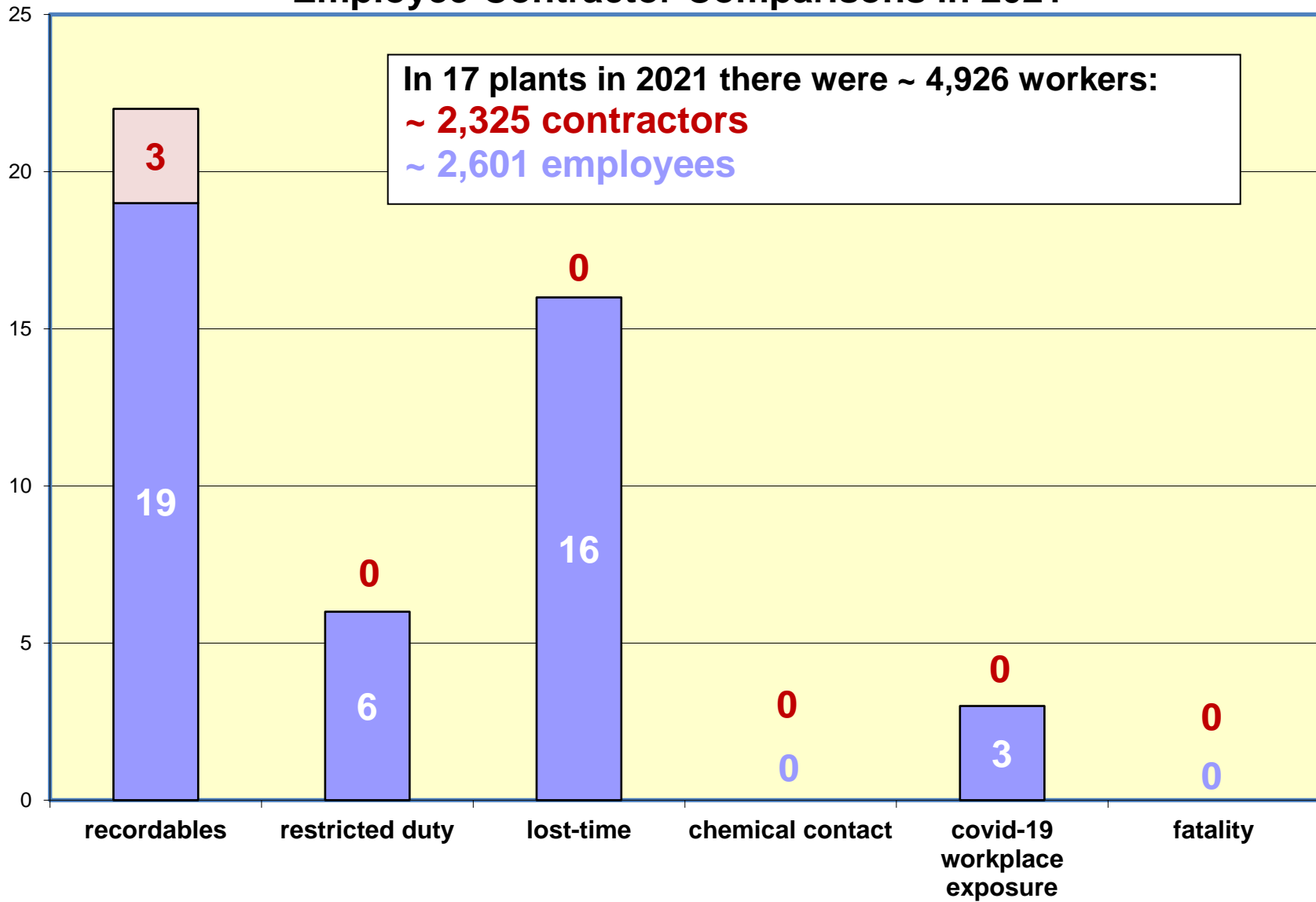
Recordables from Chemical Contact or Exposure in 2021



Recordables from COVID-19 Workplace Exposure in 2021



Employee-Contractor Comparisons in 2021



PCAC EMPLOYEE-CONTRACTOR COMPARISON -- NUMBERS OF RECORDABLES for 2021

* No contractors.

2021 employee-contractor comparison of NUMBERS of cases	Work-Hours		Total Recordables		Restricted Duty		Total Lost-Times		Severity of Lost-Time Cases						Fatalities		Chem Exposure		COVID-19 Workplace 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	empl	contr
	Afton Chemical	263,054	118,074	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Air Products*	131,040	*	0	*	0	*	0	*	0	*	0	*	0	*	0	*	0	*	0	*
Albemarle	340,825	248,132	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
BASF	156,856	125,852	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Chevron Pasadena Refinery	757,743	586,584	3	0	0	0	2	0	1	0	0	0	1	0	0	0	0	0	0	1
Chevron Phillips Chemical	835,997	742,442	2	0	2	0	2	0	0	0	2	0	0	0	0	0	0	0	0	0
Enterprise Products	141,763	70,000	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ethyl*	18,212	*	1	*	0	*	1	*	0	*	0	*	1	*	0	*	0	*	1	*
Evonik	118,754	49,199	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Gulf Coast Authority	58,972	9,339	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
INEOS Phenol	112,184	218,043	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Intercontinental Terminals	183,695	131,874	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
KM Export Terminals*	38,220	*	0	*	0	*	0	*	0	*	0	*	0	*	0	*	0	*	0	*
KM Liquids Terminals	347,602	90,048	3	0	3	0	3	0	0	0	1	0	2	0	0	0	0	0	0	0
LyondellBasell Houston Refining	1,470,201	2,269,558	4	2	0	0	4	0	1	0	0	0	3	0	0	0	0	0	0	0
OxyVinyls Pasadena PVC	318,240	143,520	3	0	0	0	3	0	0	0	1	0	2	0	0	0	0	0	0	0
PCI Nitrogen §	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
Sekisui	116,281	33,777	1	0	0	0	1	0	0	0	1	0	0	0	0	0	0	0	0	1
TOTAL numbers	5,409,639	4,836,442	19	3	6	0	16	0	2	0	5	0	9	0	0	0	0	0	3	0
weighted avg. rec. rate	employee	contractor	0.70	0.12	0.22	0.00	0.59	0.00	0.07	0.00	0.18	0.00	0.33	0.00	0.00	0.00	0.00	0.00	0.11	0.00

§ PCI Nitrogen did not submit worker safety data for the 2021 reporting year

PCAC EMPLOYEE - CONTRACTOR RECORDABLE RATES FOR 2021

* No contractors.

2021 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	263,054	118,074	0.76	0.00	0.76	0.00	0.00	0.00	0.00	0.00
Air Products*	131,040	*	0.00	*	0.00	*	0.00	*	0.00	*
Albemarle	340,825	248,132	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
BASF	156,856	125,852	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Chevron Pasadena Refinery	757,743	586,584	0.79	0.00	0.00	0.00	0.53	0.00	0.00	0.00
Chevron Phillips Chemical	835,997	742,442	0.48	0.00	0.48	0.00	0.48	0.00	0.00	0.00
Enterprise Products	141,763	70,000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Ethyl*	18,212	*	0.00	*	0.00	*	10.98	*	0.00	*
Evonik	118,754	49,199	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Gulf Coast Authority	58,972	9,339	3.39	21.42	0.00	0.00	0.00	0.00	0.00	0.00
INEOS Phenol	112,184	218,043	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Intercontinental Terminals	183,695	131,874	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
KM Export Terminals*	38,220	*	0.00	*	0.00	*	0.00	*	0.00	*
KM Liquids Terminals	347,602	90,048	1.73	0.00	1.73	0.00	1.73	0.00	0.00	0.00
LyondellBasell Houston Refining	1,470,201	2,269,558	0.54	0.18	0.00	0.00	0.54	0.00	0.00	0.00
OxyVinyls Pasadena PVC	318,240	143,520	1.89	0.00	0.00	0.00	1.89	0.00	0.00	0.00
PCI Nitrogen §	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
Sekisui	116,281	33,777	1.72	0.00	0.00	0.00	1.72	0.00	0.00	0.00
TOTALS & WEIGHTED AVERAGES	5,409,639	4,836,442	0.70	0.12	0.22	0.00	0.59	0.00	0.00	0.00
Number of recordables			19	3	6	0	16	0	0	0

* no contractors

§ NOTE: PCI Nitrogen did not submit worker safety data for the 2021 reporting year

PCAC EMPLOYEE RECORDABLE RATES FOR 2021

8 of 17 plants with no employee recordables in 2021

2021 employee rates in ALPHABETICAL ORDER	employee work hours	employee recordable rate
Afton Chemical	263,054	0.76
Air Products*	131,040	0.00
Albemarle	340,825	0.00
BASF	156,856	0.00
Chevron Pasadena Refinery	757,743	0.79
Chevron Phillips Chemical	835,997	0.48
Enterprise Products	141,763	0.00
Ethyl*	18,212	10.98
Evonik	118,754	0.00
Gulf Coast Authority	58,972	3.39
INEOS Phenol	112,184	0.00
Intercontinental Terminals	183,695	0.00
KM Export Terminals*	38,220	0.00
KM Liquids Terminals	347,602	1.73
LyondellBasell Houston Refining	1,470,201	0.54
OxyVinyls Pasadena PVC	318,240	1.89
PCI Nitrogen §	-----	-----
Sekisui	116,281	1.72
TOTALS & WEIGHTED AVERAGES	5,409,639	0.70

2021 employee rates in order FROM BEST TO HIGHEST RATE	employee work hours	employee recordable rate
Air Products*	131,040	0.00
Albemarle	340,825	0.00
BASF	156,856	0.00
Enterprise Products	141,763	0.00
Evonik	118,754	0.00
INEOS Phenol	112,184	0.00
Intercontinental Terminals	183,695	0.00
KM Export Terminals*	38,220	0.00
Chevron Phillips Chemical	835,997	0.48
LyondellBasell Houston Refining	1,470,201	0.54
Afton Chemical	263,054	0.76
Chevron Pasadena Refinery	757,743	0.79
Sekisui	116,281	1.72
KM Liquids Terminals	347,602	1.73
OxyVinyls Pasadena PVC	318,240	1.89
Gulf Coast Authority	58,972	3.39
Ethyl*	18,212	10.98
PCI Nitrogen §	-----	-----
TOTALS & WEIGHTED AVERAGES	5,409,639	0.70

Number of recordables 19

Median for employees 0.48
Range for employees 0.00 to 10.98
8 plants with 0.00 for employees

§ PCI Nitrogen did not submit worker safety data for the 2021 reporting year

PCAC CONTRACTOR RECORDABLE RATES FOR 2021

12 plants with no contractor recordables in 2021

2021 contractor rates in ALPHABETICAL ORDER	contractor work hours	contractor recordable rate
Afton Chemical	118,074	0.00
Air Products*	*	*
Albemarle	248,132	0.00
BASF	125,852	0.00
Chevron Pasadena Refinery	586,584	0.00
Chevron Phillips Chemical	742,442	0.00
Enterprise Products	70,000	0.00
Ethyl*	*	*
Evonik	49,199	0.00
Gulf Coast Authority	9,339	21.42
INEOS Phenol	218,043	0.00
Intercontinental Terminals	131,874	0.00
KM Export Terminals*	*	*
KM Liquids Terminals	90,048	0.00
LyondellBasell Houston Refining	2,269,558	0.18
OxyVinyls Pasadena PVC	143,520	0.00
PCI Nitrogen §	-----	-----
Sekisui	33,777	0.00
TOTALS & WEIGHTED AVERAGES	4,836,442	0.12

2021 contractor rates in order FROM BEST TO HIGHEST	contractor work hours	contractor recordable rate
Afton Chemical	118,074	0.00
Albemarle	248,132	0.00
BASF	125,852	0.00
Chevron Pasadena Refinery	586,584	0.00
Chevron Phillips Chemical	742,442	0.00
Enterprise Products	70,000	0.00
Evonik	49,199	0.00
INEOS Phenol	218,043	0.00
Intercontinental Terminals	131,874	0.00
KM Liquids Terminals	90,048	0.00
OxyVinyls Pasadena PVC	143,520	0.00
Sekisui	33,777	0.00
LyondellBasell Houston Refining	2,269,558	0.18
Gulf Coast Authority	9,339	21.42
Air Products*	*	*
Ethyl	*	*
KM Export Terminals*	*	*
PCI Nitrogen §	-----	-----
TOTALS & WEIGHTED AVERAGES	4,836,442	0.12

Number of recordables 3

Median for contractors 0.00
Range for contractors 0.00 to 21.42
12 plants with 0.00 for contractors

§ PCI Nitrogen did not submit worker safety data for the 2021 reporting year

Comparing Recordable Rates within OSHA's Nationwide Industry Groups

2020 NATIONAL DATA	NAICS CODE	INDUSTRY GROUP	2021 Total Plant Recordable Rate	2020 NAICS group rate
Gulf Coast Authority	221320	Sewage Treatment Facilities	5.86	2.00
Chevron Pasadena Refinery	324110	Petroleum Refineries	0.45	0.50
LyondellBasell Houston Refining	324110	Petroleum Refineries	0.32	
INEOS Phenol	325110	Petrochemical Manufacturing	0.00	1.40
Air Products*	325120	Industrial Gas Manufacturing	0.00	1.40
Afton Chemical	325199	All Other Basic Organic Chemicals	0.52	2.10
Albemarle	325199	Industrial Organic Chemicals	0.00	
BASF	325199	All Other Basic Organic Chemical Manufacturing	0.00	
Ethyl*	325199	All Other Basic Organic Chemicals	10.98	
Evonik	325199	All Other Basic Organic Chemicals	0.00	
Chevron Phillips Chemical	325211	Plastics Material and Resin Manufacturing	0.25	1.40
OxyVinyls Pasadena PVC	325211	Plastics Material and Resin Manufacturing	1.30	
Sekisui	325211	Plastics Material and Resin Manufacturing	1.33	
PCI Nitrogen §	325312	Fertilizer Manufacturing	-----	1.90
Enterprise Products	424710	Petroleum Bulk and Terminals	0.00	1.90
Intercontinental Terminals	49319	Bulk Liquid Storage Facility	0.00	1.90
KM Export Terminal *	493190	Other Warehousing and Storage	0.00	
KM Liquids Terminal	493190	Other Warehousing and Storage	1.37	

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.

All but 2 PCAC plants performed better than those in the same industry code group.

§ PCI Nitrogen did not submit worker safety data for the 2021 reporting year

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

OSHA VPP Participation by PCAC Plants

PLANT NAME	2021 Total Recordable Rate	OSHA Voluntary Protection Program (VPP) since —	Working toward OSHA VPP or OSHA Challenge
Afton Chemical	0.52		
Air Products*	0.00		
Albemarle	0.00		
BASF	0.00		
Chevron Pasadena Refinery	0.45		
Chevron Phillips Chemical	0.25	2015	
Enterprise Products	0.00		
Ethyl*	10.98		
Evonik	0.00		
Gulf Coast Authority	5.86		
INEOS Phenol	0.00		
Intercontinental Terminals	0.00		VPP and Challenge
KM Export Terminals *	0.00		
KM Liquids Terminals	1.37		
LyondellBasell Houston Refining	0.32		
OxyVinyls Pasadena PVC	1.30	1990	
PCI Nitrogen §	-----		
Sekisui	1.33		
Totals		2 VPP	1 VPP/ Challenge

§ PCI Nitrogen did not submit worker safety data for the 2021 reporting year

3 plants in or working on OSHA VPP
or Challenge Programs
14 remaining plants

0.42 weighted avg.
0.43 weighted avg

IN LISTED PROGRAMS

Chevron Phillips Chemical
 Intercontinental Terminals
 OxyVinyls Pasadena PVC

work hours	no. of recordables
1,578,439	2
315,569	0
461,760	3
2,355,768	5

WEIGHTED AVERAGE**0.42****NOT IN LISTED PROGRAMS**

Afton Chemical
 Air Products*
 Albemarle
 BASF
 Chevron Pasadena Refinery
 Enterprise Products
 Ethyl*
 Evonik
 Gulf Coast Authority
 INEOS Phenol
 KM Export Terminals *
 KM Liquids Terminals
 LyondellBasell Houston Refining
 PCI Nitrogen §
 Sekisui

work hours	no. of recordables
381,128	1
131,040	0
588,957	0
282,708	0
1,344,327	3
211,763	0
18,212	1
167,953	0
68,311	2
330,227	0
38,220	0
437,650	3
3,739,759	6
-----	-----
150,058	1
7,890,313	17

WEIGHTED AVERAGE**0.43**

§ PCI Nitrogen did not submit worker safety data for the 2021 reporting year

PCAC ANNUAL SAFETY REPORT FOR CALENDAR YEAR 2021 -- DETAILS PLANT BY PLANT

summary charts are based on these data -- * = no contractors

Additional details in other worksheets

Plant details for 2021	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	No. of recordables from COVID-19 workplace exposure	Restricted Duty Rate	Lost-Time Rate	Fatality Rate	Total Recordable Rate for 2021
Afton Chemical employees	263,054	1	1	0	0	0	0	0	0	0	0.76	0.00	0.00	0.76
Afton Chemical contractors	118,074	0	0	0	0	0	0	0	0	0	0.00	0.00	0.00	0.00
Afton Chemical plant total	381,128	1	1	0	0	0	0	0	0	0	0.52	0.00	0.00	0.52
Air Products employees	131,040	0	0	0	0	0	0	0	0	0	0.00	0.00	0.00	0.00
Air Products contractors*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Air Products plant total*	131,040	0	0	0	0	0	0	0	0	0	0.00	0.00	0.00	0.00
Albemarle Pasadena employees	340,825	0	0	0	0	0	0	0	0	0	0.00	0.00	0.00	0.00
Albemarle Pasadena contractors	248,132	0	0	0	0	0	0	0	0	0	0.00	0.00	0.00	0.00
Albemarle Pasadena plant total	588,957	0	0	0	0	0	0	0	0	0	0.00	0.00	0.00	0.00
BASF Pasadena employees	156,856	0	0	0	0	0	0	0	0	0	0.00	0.00	0.00	0.00
BASF Pasadena contractors	125,852	0	0	0	0	0	0	0	0	0	0.00	0.00	0.00	0.00
BASF Pasadena plant total	282,708	0	0	0	0	0	0	0	0	0	0.00	0.00	0.00	0.00
Chevron Pasadena Refinery employees	757,743	3	0	2	1	0	1	0	0	1	0.00	0.53	0.00	0.79
Chevron Pasadena Refinery contractors	586,584	0	0	0	0	0	0	0	0	0	0.00	0.00	0.00	0.00
Chevron Pasadena Refinery plant total	1,344,327	3	0	2	1	0	1	0	0	1	0.00	0.30	0.00	0.45
<i>Was Crown Central Petroleum, then Pasadena Refining (until 2019)</i>														
Chevron Phillips Chemical employees	835,997	2	2	2	0	2	0	0	0	0	0.48	0.48	0.00	0.48
Chevron Phillips Chemical contractors	742,442	0	0	0	0	0	0	0	0	0	0.00	0.00	0.00	0.00
Chevron Phillips Chemical plant total	1,578,439	2	2	2	0	2	0	0	0	0	0.25	0.25	0.00	0.25
Enterprise Products employees	141,763	0	0	0	0	0	0	0	0	0	0.00	0.00	0.00	0.00
Enterprise Products contractors	70,000	0	0	0	0	0	0	0	0	0	0.00	0.00	0.00	0.00
Enterprise Products plant total	211,763	0	0	0	0	0	0	0	0	0	0.00	0.00	0.00	0.00
Ethyl employees	18,212	1	0	1	0	0	1	0	0	1	0.00	10.98	0.00	10.98
Ethyl contractors*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Ethyl plant total *	18,212	1	0	1	0	0	1	0	0	1	0.00	10.98	0.00	10.98
Evonik employees	118,754	0	0	0	0	0	0	0	0	0	0.00	0.00	0.00	0.00
Evonik contractors	49,199	0	0	0	0	0	0	0	0	0	0.00	0.00	0.00	0.00
Evonik plant total	167,953	0	0	0	0	0	0	0	0	0	0.00	0.00	0.00	0.00
<i>Joined 2017</i>														
Gulf Coast Authority employees	58,972	1	0	0	0	0	0	0	0	0	0.00	0.00	0.00	3.39
Gulf Coast Authority contractors	9,339	1	0	0	0	0	0	0	0	0	0.00	0.00	0.00	21.42
Gulf Coast Authority plant total	68,311	2	0	0	0	0	0	0	0	0	0.00	0.00	0.00	5.86
<i>Joined 2009</i>														

Plant details for 2021	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	No. of recordables from COVID-19 workplace exposure	Restricted Duty Rate	Lost-Time Rate	Fatality Rate	Total Recordable Rate for 2021
INEOS Phenol employees	112,184	0	0	0	0	0	0	0	0	0	0.00	0.00	0.00	0.00
INEOS Phenol contractors	218,043	0	0	0	0	0	0	0	0	0	0.00	0.00	0.00	0.00
INEOS Phenol plant total	330,227	0	0	0	0	0	0	0	0	0	0.00	0.00	0.00	0.00
<i>Was Georgia Gulf until 2014. Became Axiall, then became INEOS Phenol in 2015.</i>														
Intercontinental Terminals empl	183,695	0	0	0	0	0	0	0	0	0	0.00	0.00	0.00	0.00
Intercontinental Terminals contr	131,874	0	0	0	0	0	0	0	0	0	0.00	0.00	0.00	0.00
Intercontinental Terminals total	315,569	0	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 Terminals employees	38,220	0	0	0	0	0	0	0	0	0	0.00	0.00	0.00	0.00
KM Export Terminals contractors*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
KM Export Terminals plant total *	38,220	0	0	0	0	0	0	0	0	0	0.00	0.00	0.00	0.00
<i>Joined 2017</i>														
KM Liquids Terminals employees	347,602	3	3	3	0	1	2	0	0	0	1.73	1.73	0.00	1.73
KM Liquids Terminals contractors	90,048	0	0	0	0	0	0	0	0	0	0.00	0.00	0.00	0.00
KM Liquids Terminals plant total	437,650	3	3	3	0	1	2	0	0	0	1.37	1.37	0.00	1.37
LyondellBasell Houston Refining empl	1,470,201	4	0	4	1	0	3	0	0	0	0.00	0.54	0.00	0.54
LyondellBasell Houston Refining contr	2,269,558	2	0	0	0	0	0	0	0	0	0.00	0.00	0.00	0.18
LyondellBasell Houston Refining total	3,739,759	6	0	4	1	0	3	0	0	0	0.00	0.21	0.00	0.32
OxyVinyls Pasadena PVC employees	318,240	3	0	3	0	1	2	0	0	0	0.00	1.89	0.00	1.89
OxyVinyls Pasadena PVC contractors	143,520	0	0	0	0	0	0	0	0	0	0.00	0.00	0.00	0.00
OxyVinyls Pasadena PVC plant total	461,760	3	0	3	0	1	2	0	0	0	0.00	1.30	0.00	1.30
PCI Nitrogen employees §	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
PCI Nitrogen contractors §	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
PCI Nitrogen plant total §	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
<i>Was Agritos, then Rentech Nitrogen, then PCI Nitrogen</i>														
Sekisui employees	116,281	1	0	1	0	1	0	0	0	1	0.00	1.72	0.00	1.72
Sekisui contractors	33,777	0	0	0	0	0	0	0	0	0	0.00	0.00	0.00	0.00
Sekisui plant total	150,058	1	0	1	0	1	0	0	0	1	0.00	1.33	0.00	1.33
<i>was Celanese Chemicals until 2009</i>														
§ NOTE: PCI Nitrogen did not submit worker safety data for the 2021 reporting year														

HISTORY OF PCAC TOTAL RECORDABLE RATES (TRR) 2000 - 2021													blanks mean plant was not yet built or in PCAC									
Historic Plant Details	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	0.76	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															
Afton Chemical plant total	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	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	0.18	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	0.33	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 Pasadena employees	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 Pasadena contractors	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 Pasadena plant total	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
BASF Pasadena employees	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	0.00	0.00	0.00	1.92	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	0.00	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	0.79	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	0.00	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	0.45	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	0.48	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	0.00	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	0.25	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	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	12.14	0.57	0.00	**							
Enterprise Products plant total	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	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	1.58	2.61	0.00	0.00	2.69	6.96	0.00		
Ethyl plant total	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	0.00	0.00	0.00	3.00																	
Evonik contractors	0.00	0.00	0.00	0.00	0.00																	
Evonik plant total	0.00	0.00	0.00	0.00	2.36																	
<i>Joined in 2017</i>																						
Gulf Coast Authority employees	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	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	5.86	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	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	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	0.00	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 Axiall, then became INEOS Phenol in 2015.</i>																						
Intercontinental Terminals empl	0.00	1.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00													
Intercontinental Terminals contr	0.00	0.00	0.43	0.43	0.00	0.28	0.78	0.00	0.00													
Intercontinental Terminals total	0.00	0.55	0.33	0.35	0.00	0.25	0.71	0.00	0.00													
<i>Joined 2014 when under construction</i>																						

Historic Plant Details	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
KM Export Terminals employees	0.00	0.00	0.00	0.00	0.00																	
KM Export Terminals contractors	*	*	*	*	0.00																	
KM Export Terminals plant total *	0.00	0.00	0.00	0.00	0.00																	
<i>Joined in 2017</i>																						
KM Liquids Terminals employees	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 Liquids Terminals contractors	0.00	¶	0.97	¶	0.00	0.00	0.00	0.00	0.95	*	0.00	1.02	0.00	1.28	1.12			0.91				
KM Liquids Terminals plant total	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
¶ KMLT had 2 contractor injuries in 2020 but was unable to provide contractor hours; ¶ KMLT had 2 contractor injuries in 2018 but was unable to provide contractor hours																						
LyondellBasell Houston Refining empl	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 Refining contr	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 Refining total	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
OxyVinyls Pasadena PVC employees	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
OxyVinyls Pasadena PVC contractors	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.53	3.06	0.00	1.57	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.15	1.34	0.00
OxyVinyls Pasadena PVC plant total	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
<i>Allowed Restricted Duty Starting in 2018</i>																						
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
§ Did not submit data for 2021. 2001 -- used contractors but no data. 2000 -- no contractors; employees performed maintenance work. Was Agrifos, then Rentech Nitrogen. 2019: No restricted duty																						
Sekisui employees	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	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	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
<i>was Celanese Chemicals until 2009</i>																						
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	2.70
<i>Now Pasadena Refining System. 2000-01 have plant total rates but breakdown between employees and contractors not available.</i>																						
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
<i>Moved operations to Baytown in 2016.</i>																						
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
<i>Was MEMC. Demolished plant in 2016.</i>																						
# no Restricted Duty * No contractors. ¶ Not available																						