

Pasadena Citizens' Advisory Council

Annual Report on Worker Safety For Calendar Year 2020

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

FINAL 2/28/2021

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 -- Kinder Morgan Export Terminal

no restricted duty

¶ Not available- Kinder Morgan Liquids Terminal Contractor Hours for 2020

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Highlights

Pasadena CAC Plants in Years	2020	2019	2018	2017	2016	2015	2014	2013	2010	2007	2006	2005	2002	2000
Total work hours	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	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	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)	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	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	2,480	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	13	25	18	20	13	34	19	34	45	65	65	60	73	
Employees	11	14	15	18	8	19	8	22	25	37	30	34		
Contractors	2	11	3	2	5	15	11	12	20	28	35	26		
Number of recordables that were restricted duty cases	7	10	4	2	3	7	8	12	13	13	12			
Employees	7	6	4	2	1	5	4	9	11	7	7			
Contractors	0	4	0	0	2	2	4	3	2	6	5			
Number of recordables that were lost-time cases	6	8	9	9	6	15	5	14	16	23	20	19	26	
Employees	6	6	8	9	4	10	3	12	12	19	14	13	26	
Contractors	0	2	1	0	2	5	2	2	4	4	6	6	0	
Percentage of lost-times	46%	32%	50%	45%	46%	44%	26%	41%	36%	35%	31%	32%	36%	
Number of lost-time cases less than a week	2	1	2	1	1	1	1	6	3	4				
Employees	2	1	2	1	0	1	1	5	1	4				
Contractors	0	0	0	0	1	0	0	1	2	0				
Number of lost-time cases 1 week to 1 month	2	0	1	2	2	5	3	2	5	5				
Employees	2	0	1	2	1	1	2	2	4	4				
Contractors	0	0	0	0	1	4	1	0	1	1				
Number of lost-time cases more than a month	2	6	6	6	3	9	1	6	8	14				
Employees	2	5	5	6	3	8	0	5	7	11				
Contractors	0	1	1	0	0	1	1	1	1	3				
Fatalities	1	0	0	0	0	1	0	0	0	1	0	0	0	1
Employee or Contractor	Employee													

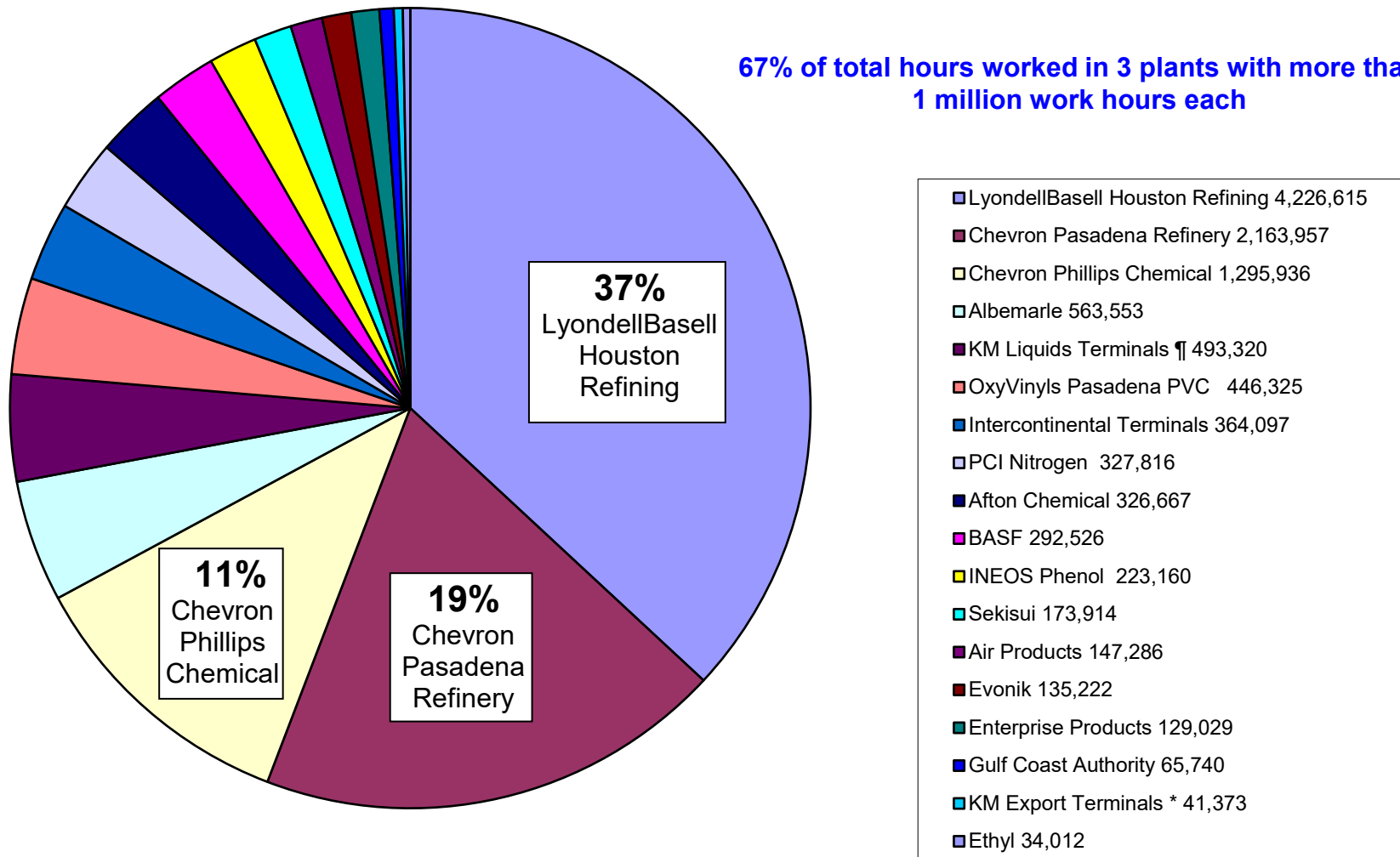
Highlights

Pasadena CAC Plants in Years	2020	2019	2018	2017	2016	2015	2014	2013	2010	2007	2006	2005	2002	2000
Number of recordables from chemical exposure or contact	1	2	1	5	0	6	1	2	2	6				
Employees	1	2	1	5	0	6	1	2	1	4				
Contractors	0	0	0	0	0	0	0	0	1	2				
Weighted average of plant recordable rates	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	0.35	0.46	0.48	0.58	0.25	0.53	0.23	0.60	0.63	1.01	0.83	0.97		
Contractors	0.08	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	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	0.00	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	0.00	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	0.58	0.24				
Number of plants with 0.00 for both employees & contractors	10	8	8	10	11	9	9	5	6	4	2	5	4	
Employees	10	10	9	10	11	12	11	9	7	4				
Contractors	14	11	13	16	12	11	12	10	7	7				
Most consecutive 0.00 rates for both	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	0.45	0.42	0.40	0.43	0.58	0.65	0.75	0.81	0.65					
audit programs														
Certified in OSHA Voluntary Protection Program (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	2 VPP/ Challenge	1 VPP/ Challenge	1 VPP/ Challenge	1 Challenge	0	1	2	2	5					
audit	**	7	5	6	4	6	4	4	2					
Scheduled for RCMS audit	**	4	2	2	2	2	3	1	1					
Not scheduled yet but corporation takes part in program	**	2	1	2	2	3	4	5	4					
	** Question removed beginning in 2020													

Plant Size by Work Hours in 2020

11,450,548 Total Work Hours

67% of total hours worked in 3 plants with more than 1 million work hours each

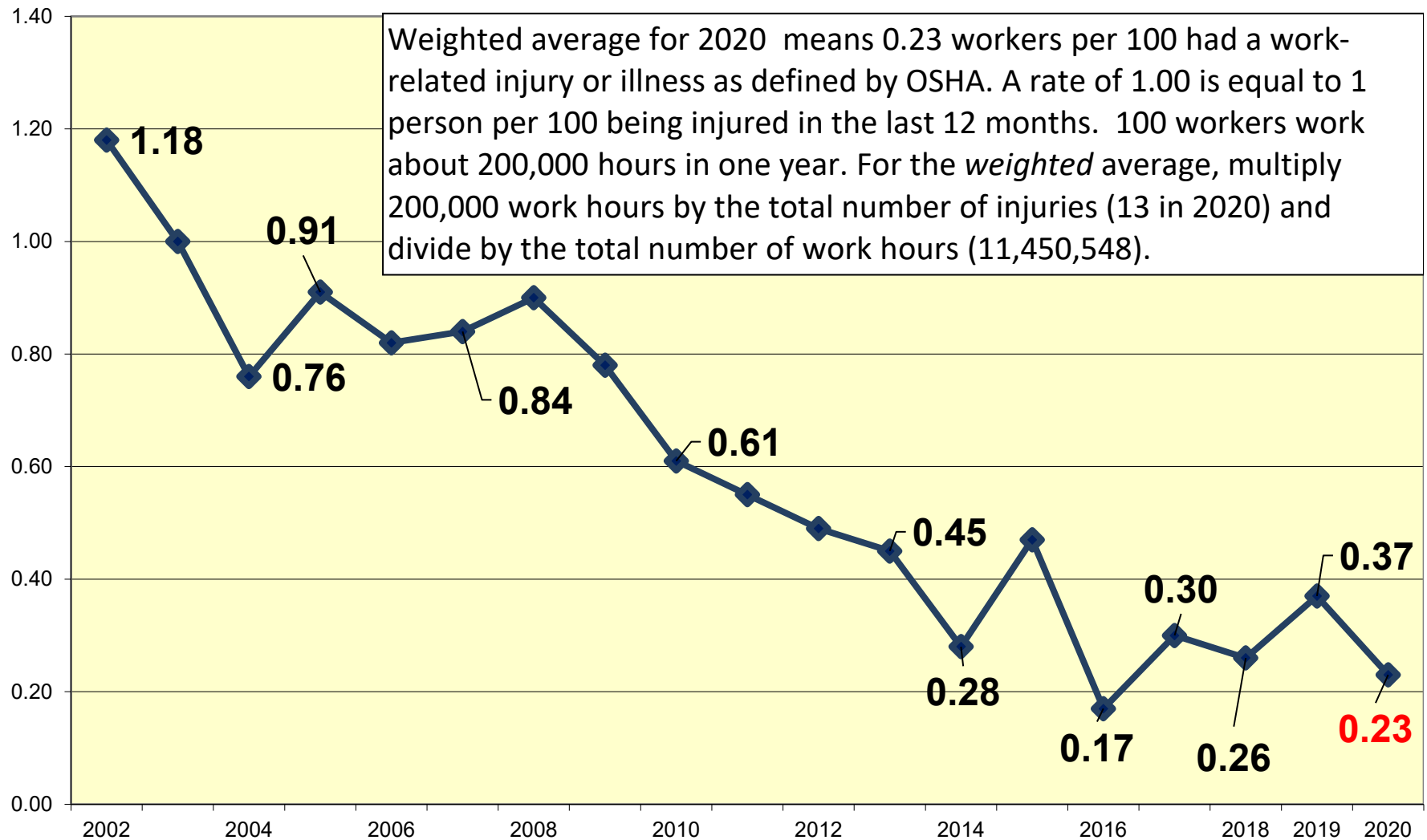


PCAC WORK-HOURS, NUMBERS OF INCIDENTS, RATES, AVERAGES in 2020

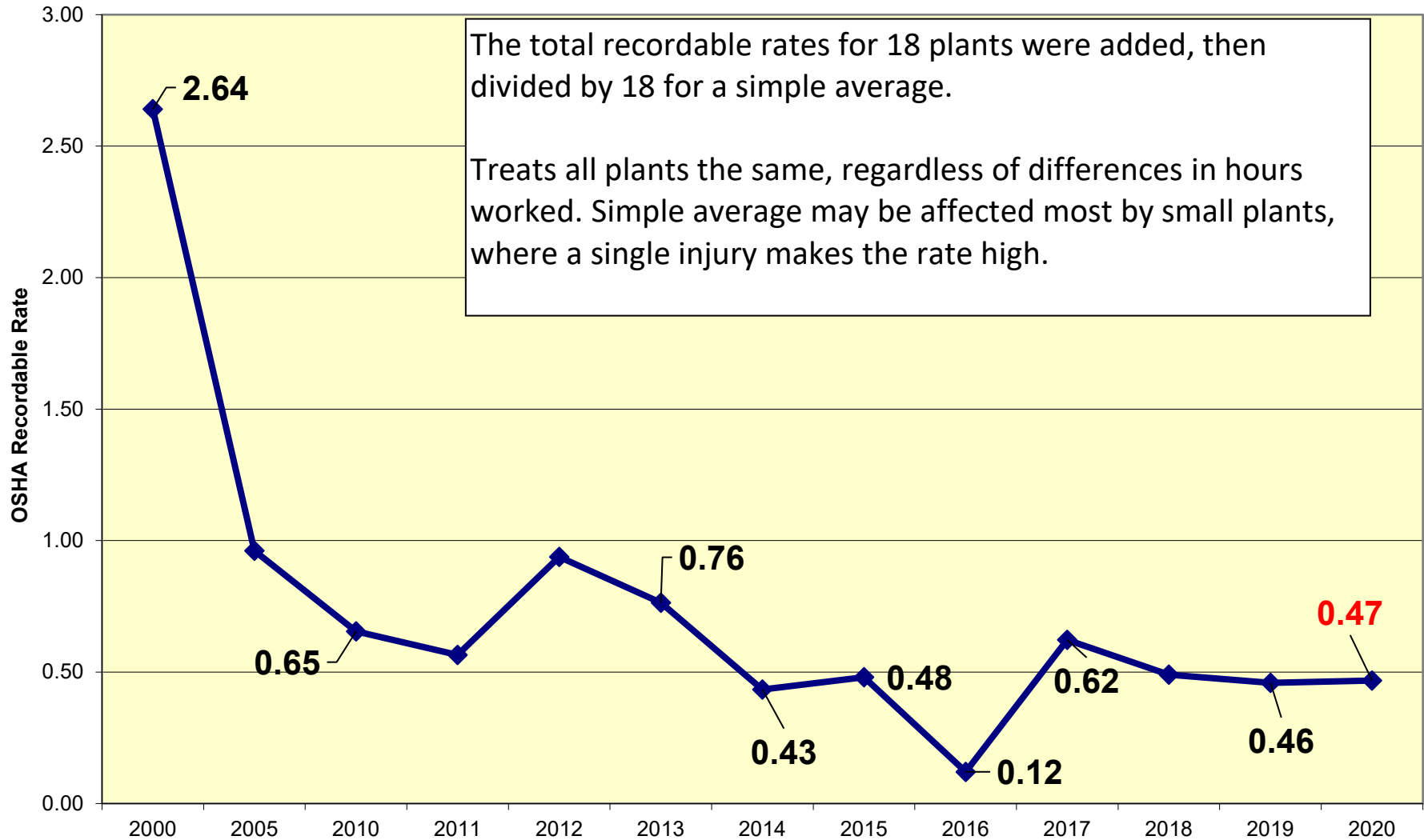
Approximate full-time equivalent employee count = work hours divided by 2080 (hours one person works in a year)

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	Fatality rate	Total restricted duty rate	Total lost-time rate	Total recordable rate
LyondellBasell Houston Refining	4,226,615	2	0	1	0	1	0	0	0	0.00	0.00	0.05	0.09
Chevron Pasadena Refinery	2,163,957	2	1	0	0	0	0	0	0	0.00	0.09	0.00	0.18
Chevron Phillips Chemical	1,295,936	1	1	1	1	0	0	0	0	0.00	0.15	0.15	0.15
Albemarle	563,553	0	0	0	0	0	0	0	0	0.00	0.00	0.00	0.00
KM Liquids Terminals ¶	493,320	1	1	1	0	0	1	0	0	0.00	0.41	0.41	0.41
OxyVinyls Pasadena PVC	446,325	0	0	0	0	0	0	0	0	0.00	0.00	0.00	0.00
Intercontinental Terminals	364,097	1	1	0	0	0	0	0	0	0.00	0.55	0.00	0.55
PCI Nitrogen	327,816	4	2	2	0	1	1	1	1	0.61	1.22	1.22	2.44
Afton Chemical	326,667	0	0	0	0	0	0	0	0	0.00	0.00	0.00	0.00
BASF	292,526	0	0	0	0	0	0	0	0	0.00	0.00	0.00	0.00
INEOS Phenol	223,160	0	0	0	0	0	0	0	0	0.00	0.00	0.00	0.00
Sekisui	173,914	0	0	0	0	0	0	0	0	0.00	0.00	0.00	0.00
Air Products	147,286	0	0	0	0	0	0	0	0	0.00	0.00	0.00	0.00
Evonik	135,222	0	0	0	0	0	0	0	0	0.00	0.00	0.00	0.00
Enterprise Products	129,029	1	1	0	0	0	0	0	0	0.00	1.55	0.00	1.55
Gulf Coast Authority	65,740	1	0	1	1	0	0	0	0	0.00	0.00	3.04	3.04
KM Export Terminals *	41,373	0	0	0	0	0	0	0	0	0.00	0.00	0.00	0.00
Ethyl	34,012	0	0	0	0	0	0	0	0	0.00	0.00	0.00	0.00
totals & simple average	11,450,548	13	7	6	2	2	2	1	1	0.03	0.22	0.27	0.47
										Fatality rate	restricted duty rate	lost-time rate	recordable rate
weighted averages		0.23	0.12	0.10	0.03	0.03	0.03	0.02	0.02				
* no contractors													
¶ Not available- There were 2 contractor injuries not listed here because the Kinder Morgan Liquids Terminal cannot provide contractor hours. They were not lost-time cases.													

Trend in Weighted Averages 2020

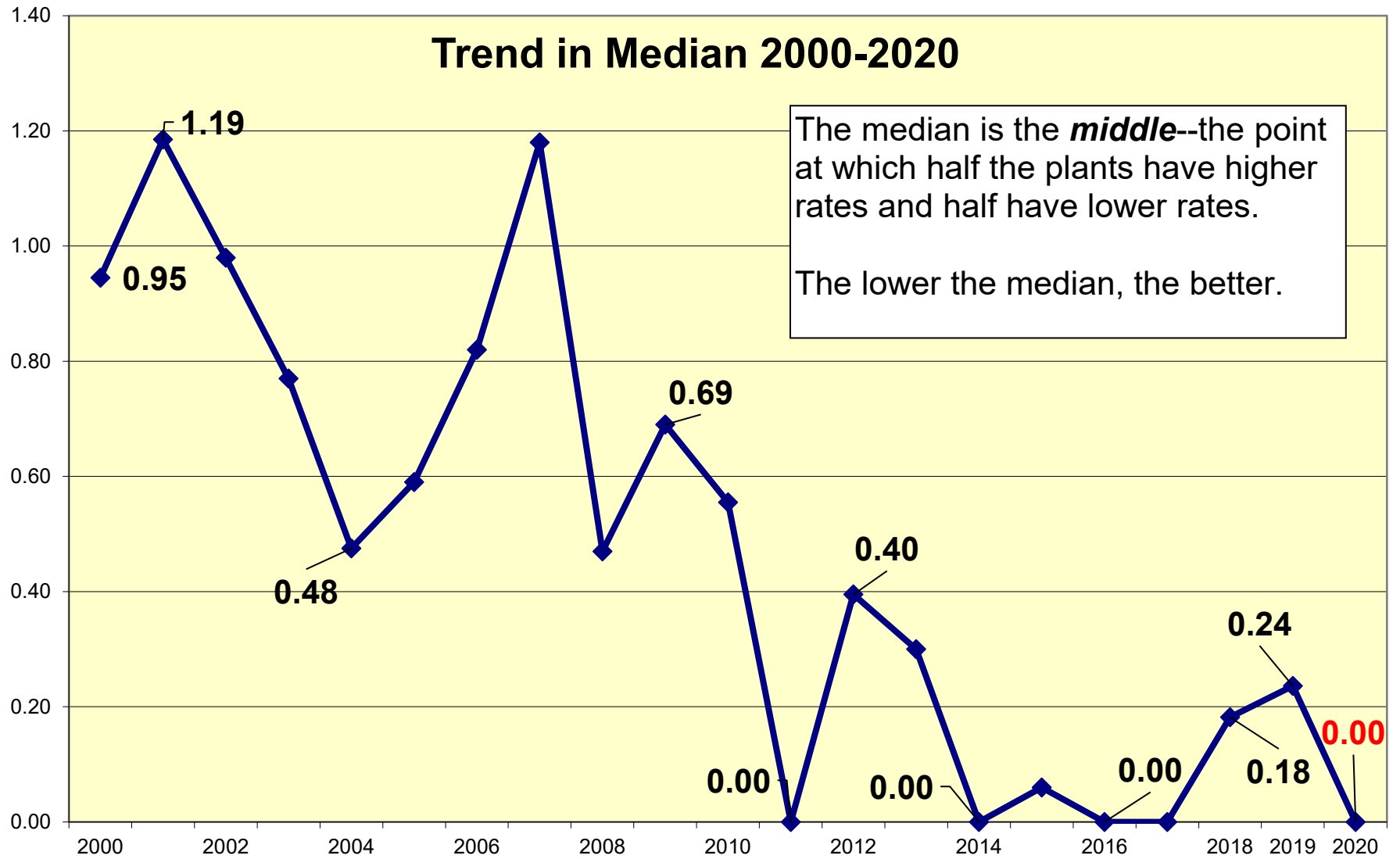


Trend in Simple Average 2020



ANNUAL REPORT ON SAFETY FOR CALENDAR YEAR 2020													
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
Afton Chemical								0.00	0.00	0.00	2.63	0.00	0.00
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
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
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
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
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
Enterprise Products			2.14	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.19	1.55
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
Evonik										2.36	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
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
Intercontinental Terminals						0.00	0.00	0.71	0.25	0.00	0.35	0.33	0.55
KM Export Terminals *										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
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
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
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
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
	2000	2005	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
* no contractors													
¶ Not available- There were 2 contractor injuries not listed here because the Kinder Morgan Liquids Terminal cannot provide contractor hours. They were not lost-time cases.													

Trend in Median 2000-2020

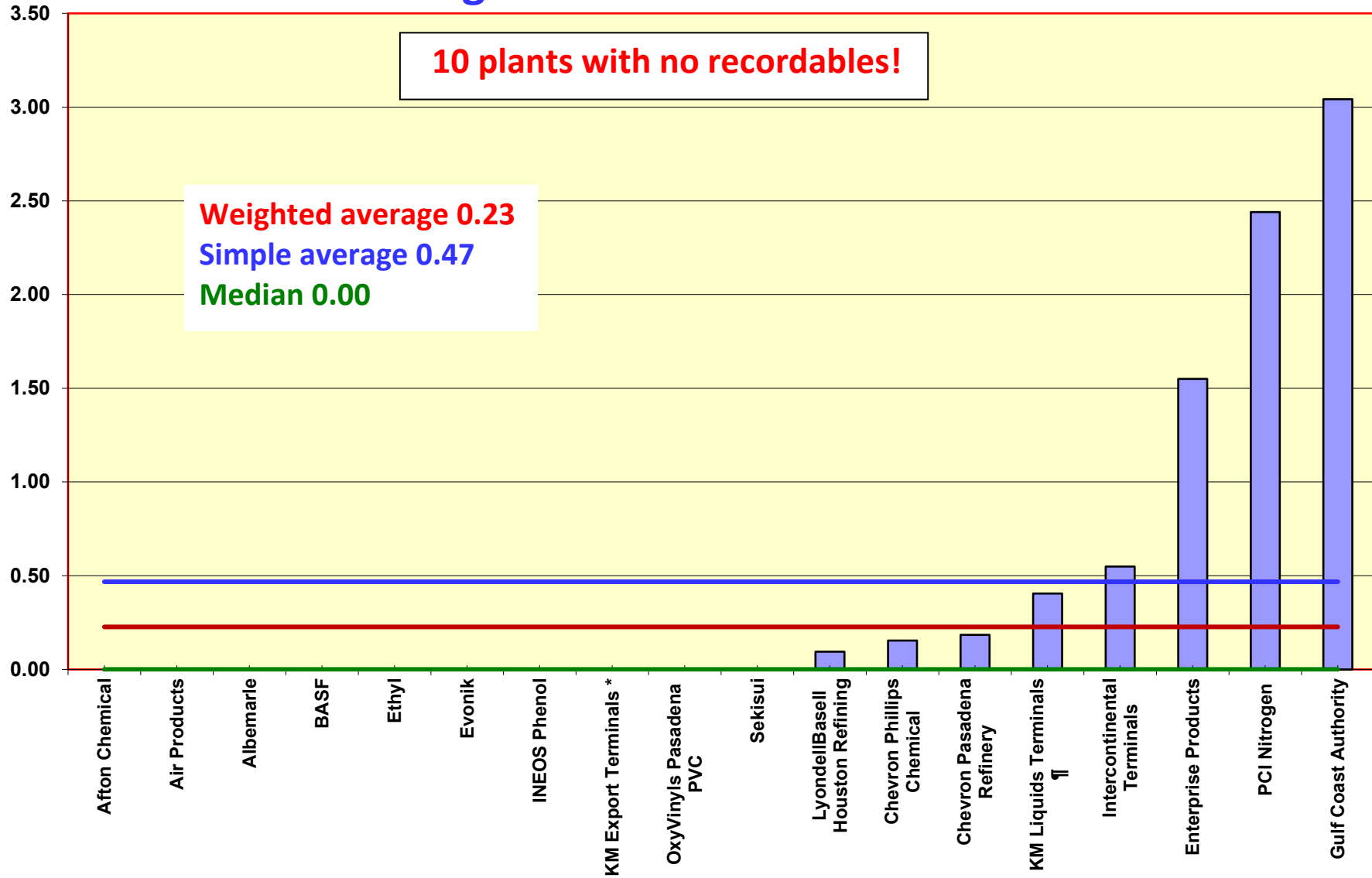


2020 TOTAL RECORDABLE RATES WITH RANGE & MEDIAN

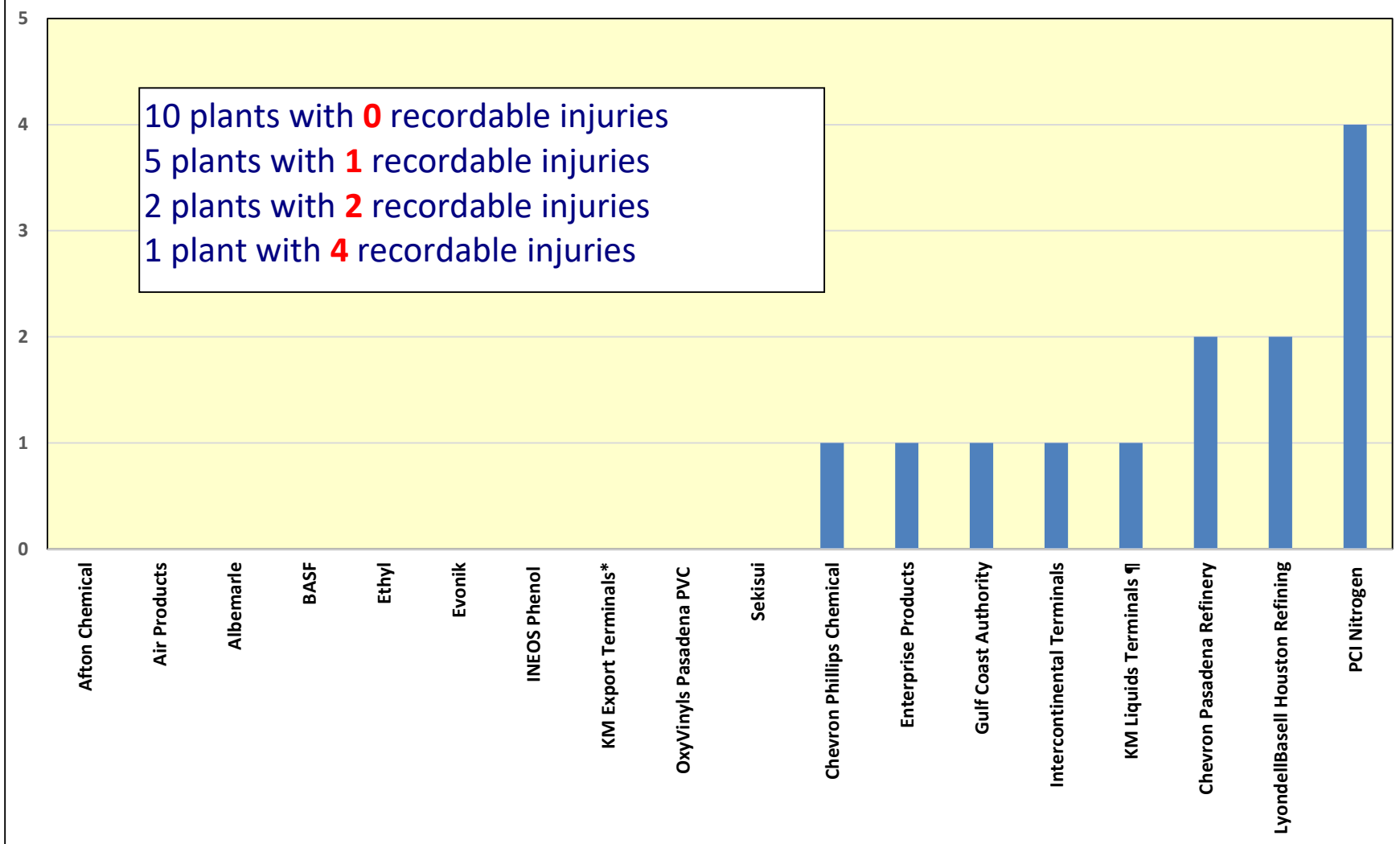
median is the middle--half of the plants have higher rates and half have lower rates

PCAC Plants - Ranking Lowest to Highest Highest 2020 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	Ranking by Lowest to Highest Recordable Rate
Afton Chemical																0.00	0.00	0.00	2.63	0.00	0.00	Afton Chemical
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	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	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	BASF
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	Ethyl
Evonik																		2.36	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	INEOS Phenol
KM Export Terminals *																		0.00	0.00	0.00	0.00	KM Export Terminals *
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	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	Sekisui
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	LyondellBasell Houston Refining
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	Chevron Phillips Chemical
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	Chevron Pasadena Refinery
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	KM Liquids Terminals ¶
Intercontinental Terminals														0.00	0.00	0.71	0.25	0.00	0.35	0.33	0.55	Intercontinental Terminals
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	Enterprise Products
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
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	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: 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	0.95	1.19	0.98	0.77	0.48	0.59	0.82	1.18	0.47	0.69	0.56	0.00	0.40	0.30	0.00	0.06	0.00	0.00	0.18	0.24	0.00	
	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	
* no contractors																						
¶ Not available- There were 2 contractor injuries not listed here because the Kinder Morgan Liquids Terminal cannot provide contactor hours. They were not lost-time cases.																						

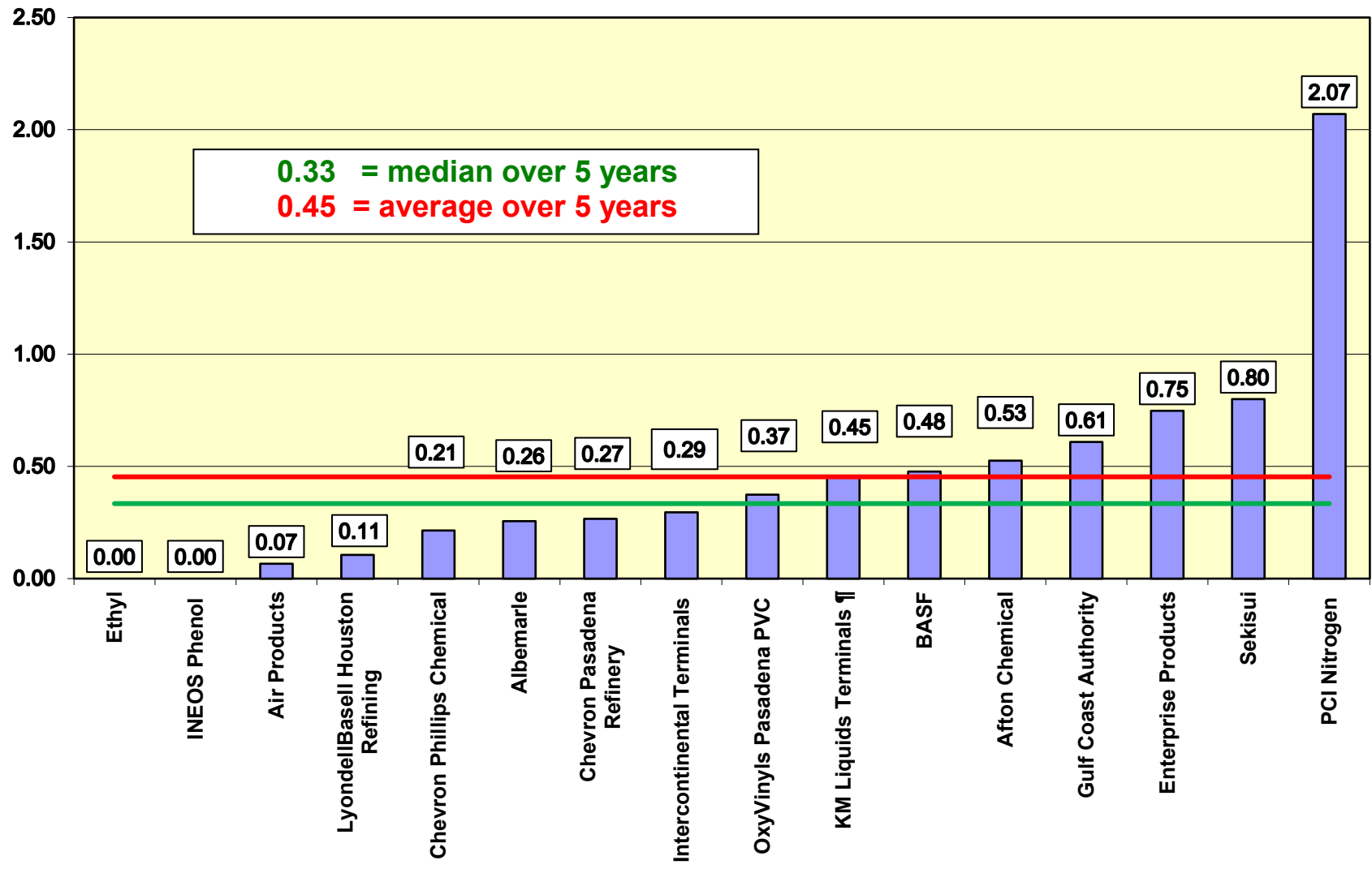
Plant Rankings 2020 Based on Recordable Rates



Plant Rankings by *Number* of Recordables- 2020



5-Year Plant Ranking by Average Recordable *Rates* 2016-2020 for plants in PCAC for 5 or more years



ANNUAL REPORT ON SAFETY FOR CALENDAR YEAR 2020

Pasadena Citizens' Advisory Council

5-YEAR AVERAGES for plants with 5 years of data

Total Recordable Rate (employees and contractors combined)

	5-yr avg	2016	2017	2018	2019	2020
Ethyl	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
Air Products	0.07	0.33	0.00	0.00	0.00	0.00
LyondellBasell Houston Refining	0.11	0.14	0.09	0.06	0.15	0.09
Chevron Phillips Chemical	0.21	0.25	0.31	0.00	0.36	0.15
Albemarle	0.26	0.00	0.30	0.31	0.67	0.00
Chevron Pasadena Refinery	0.27	0.25	0.00	0.42	0.48	0.18
Intercontinental Terminals	0.29	0.25	0.00	0.35	0.33	0.55
OxyVinyls Pasadena PVC	0.37	0.00	0.98	0.46	0.43	0.00
KM Liquids Terminals ¶	0.45	0.00	0.00	1.24	0.62	0.41
BASF	0.48	0.00	0.27	1.37	0.74	0.00
Afton Chemical	0.53	0.00	0.00	2.63	0.00	0.00
Gulf Coast Authority	0.61	0.00	0.00	0.00	0.00	3.04
Enterprise Products	0.75	0.00	0.00	0.00	2.19	1.55
Sekisui	0.80	0.00	2.61	1.39	0.00	0.00
PCI Nitrogen	2.07	0.71	4.28	0.62	2.30	2.44
5-yr in order from best to highest	5-yr avg	2016	2017	2018	2019	2020

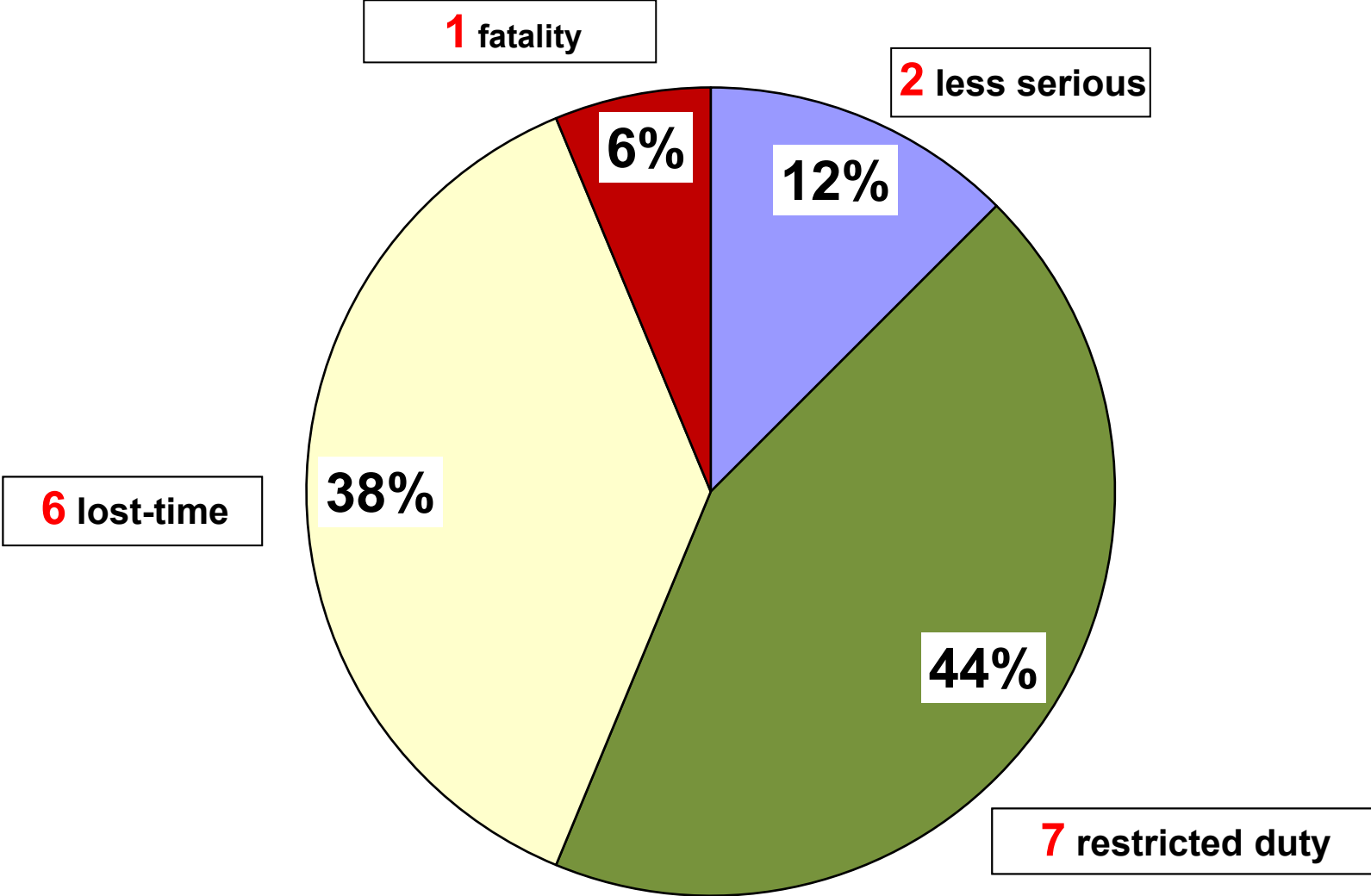
Average of 5-yr plant rates	0.45	0.12	0.55	0.55	0.52	0.53
Median	0.33					

Evonik does not have yet 5 years of performance

	2.36	0.00	0.00	0.00
	0.00	0.00	0.00	0.00

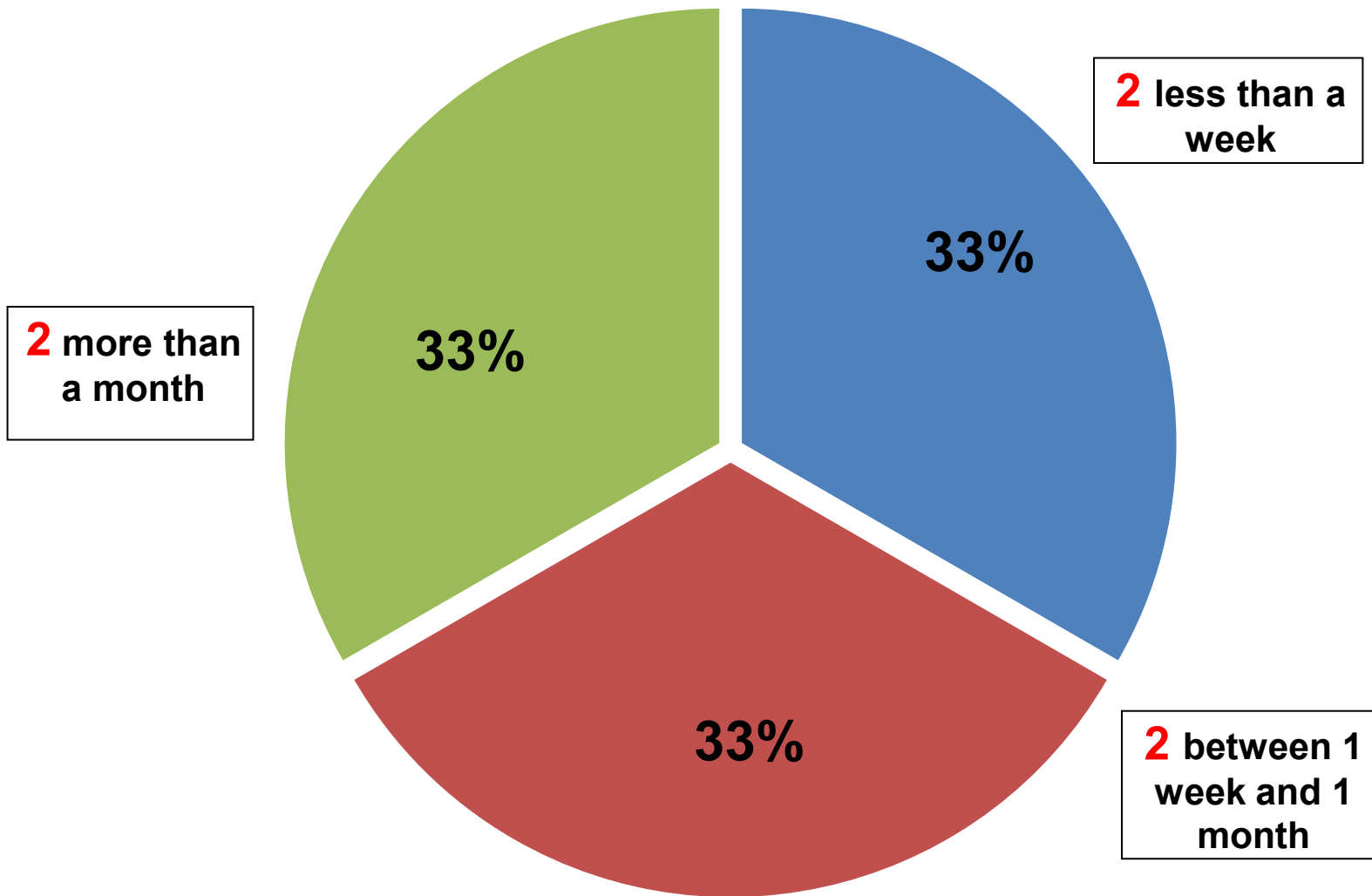
KM Export Terminal (*) does not yet have 5 years of performance

Severity of Injury or Illness in 2020

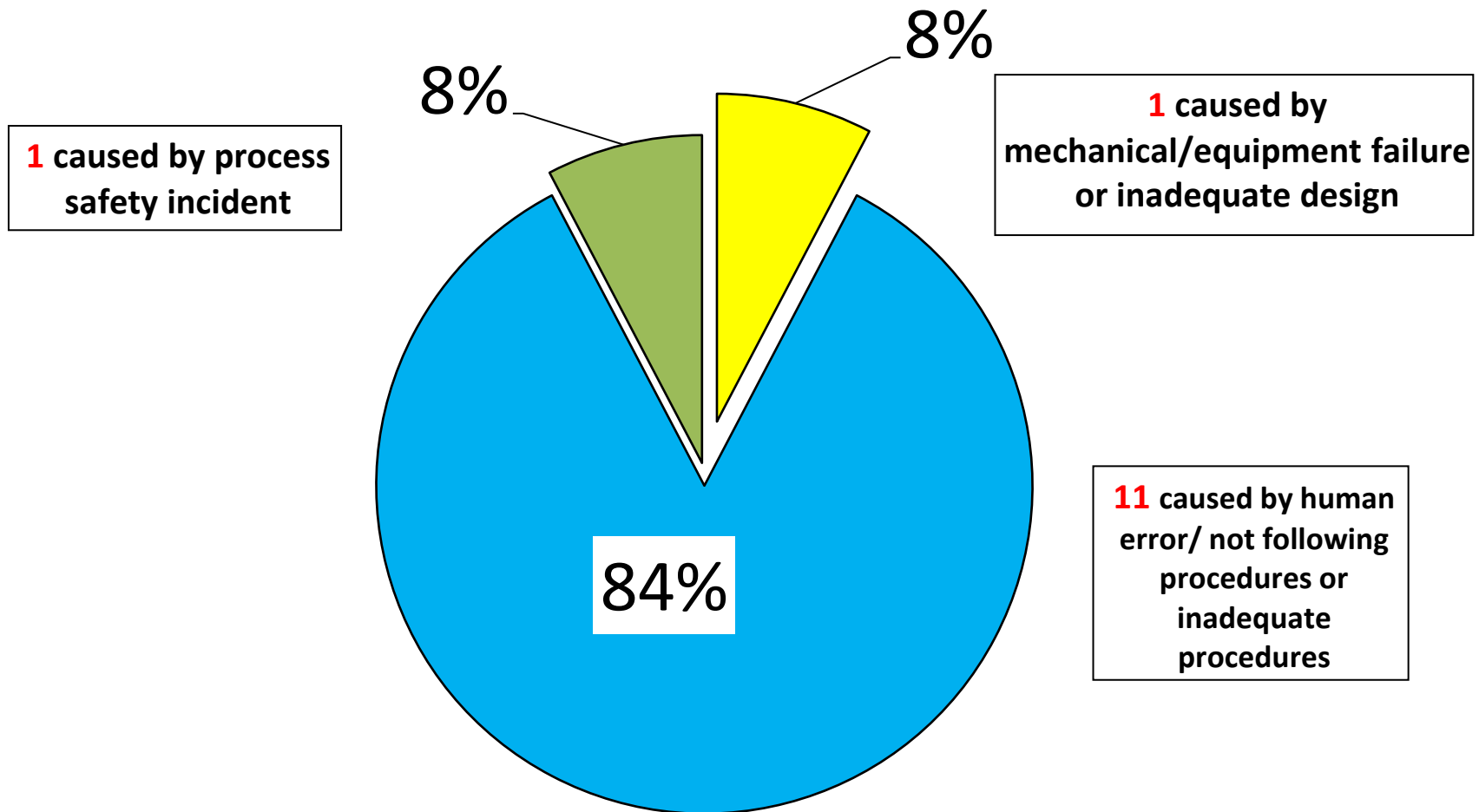


Severity of the 6 Lost-Time Cases in 2020

based on number of days away from work



Cause of the 13 Recordable Injuries-2020



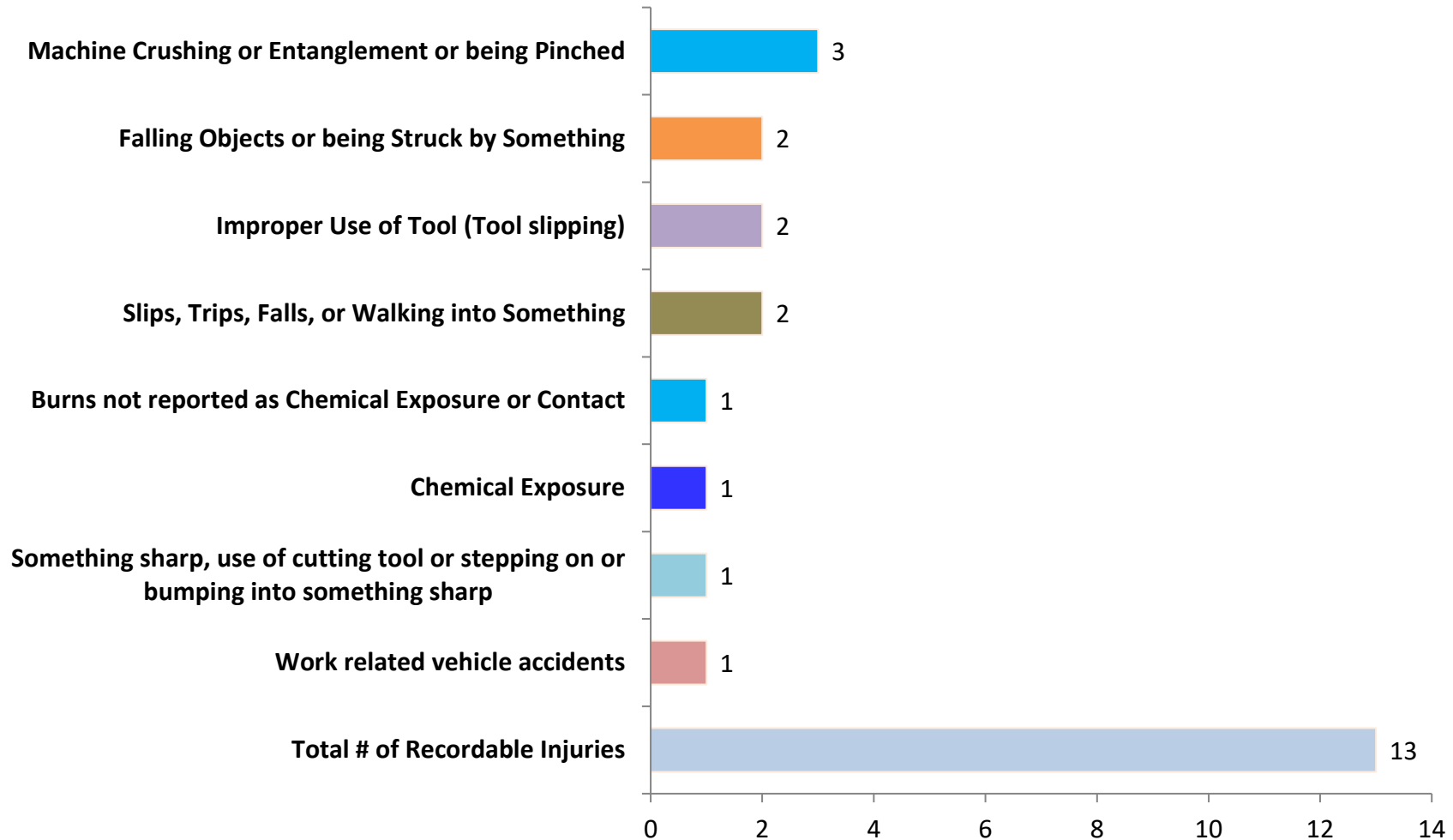
PCAC GENERAL CATEGORIES OF RECORDABLES IN 2020

based on categories plants record on an OSHA 300A log

	Mechanical/ Equipment Failure or Inadequate Design	Human Factor	Process Safety Incident	Other	TOTAL
Afton Chemical					0
Air Products					0
Albemarle					0
BASF					0
Chevron Pasadena Refinery		2			2
Chevron Phillips Chemical		1			1
Enterprise Products		1			1
Ethyl					0
Evonik					0
Gulf Coast Authority		1			1
INEOS Phenol					0
Intercontinental Terminals		1			1
KM Export Terminals *					0
KM Liquids Terminals ¶	1				1
LyondellBasell Houston Refining		1	1		2
OxyVinyls Pasadena PVC					0
PCI Nitrogen		4			4
Sekisui					0
TOTAL:	1	11	1	0	13
* no contractors					

¶ Not available- There were 2 contractor injuries not listed for 2020 because the Kinder Morgan Liquids Terminal cannot provide contractor hours. They were not lost-time cases.

Recordable Injuries in 2020 Resulted From



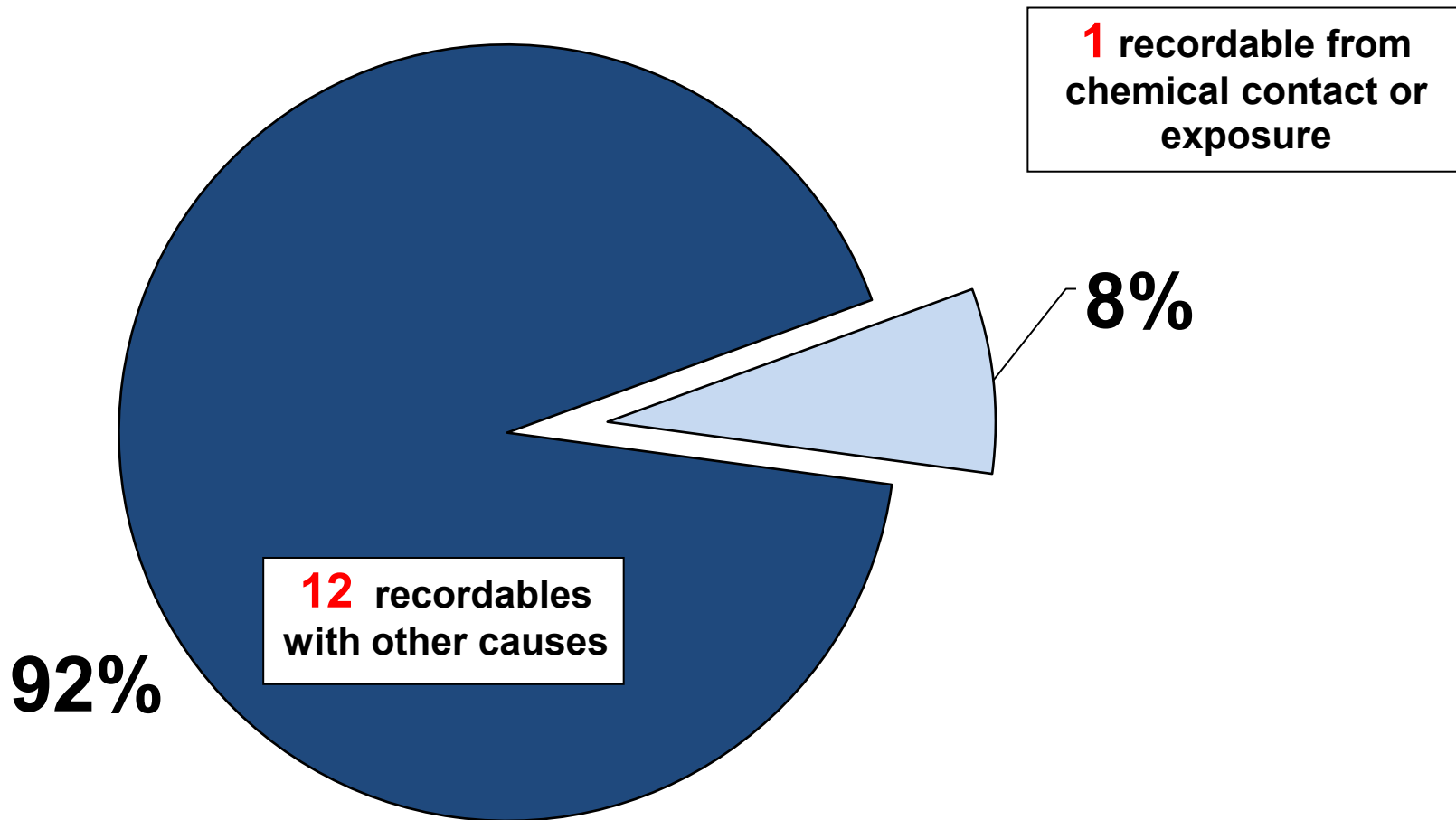
Type of Recordable Injury in 2020

Plant Name	Total Recordable Injury Rate	Total # of Recordable Injuries	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	Slips, Trips, Falls, or Walking into Something	Improper Use of Tool (Tool slipping)	Falling Objects or being Struck by Something	Machine Crushing or Entanglement or being Pinched
Afton Chemical	0.00	0								
Air Products	0.00	0								
Albemarle	0.00	0								
BASF	0.00	0								
Chevron Pasadena Refinery	0.18	2						1	1	
Chevron Phillips Chemical	0.15	1		1						
Enterprise Products	1.55	1								1
Ethyl	0.00	0								
Evonik	0.00	0								
Gulf Coast Authority	3.04	1							1	
INEOS Phenol	0.00	0								
Intercontinental Terminals	0.55	1						1		
KM Export Terminals *	0.00	0								
KM Liquids Terminals ¶	0.41	1					1			
LyondellBasell Houston Refining	0.09	2				1	1			
OxyVinyls Pasadena PVC	0.00	0								
PCI Nitrogen	2.44	4	1		1					2
Sekisui	0.00	0								
TOTALS		13	1	1	1	1	2	2	2	3

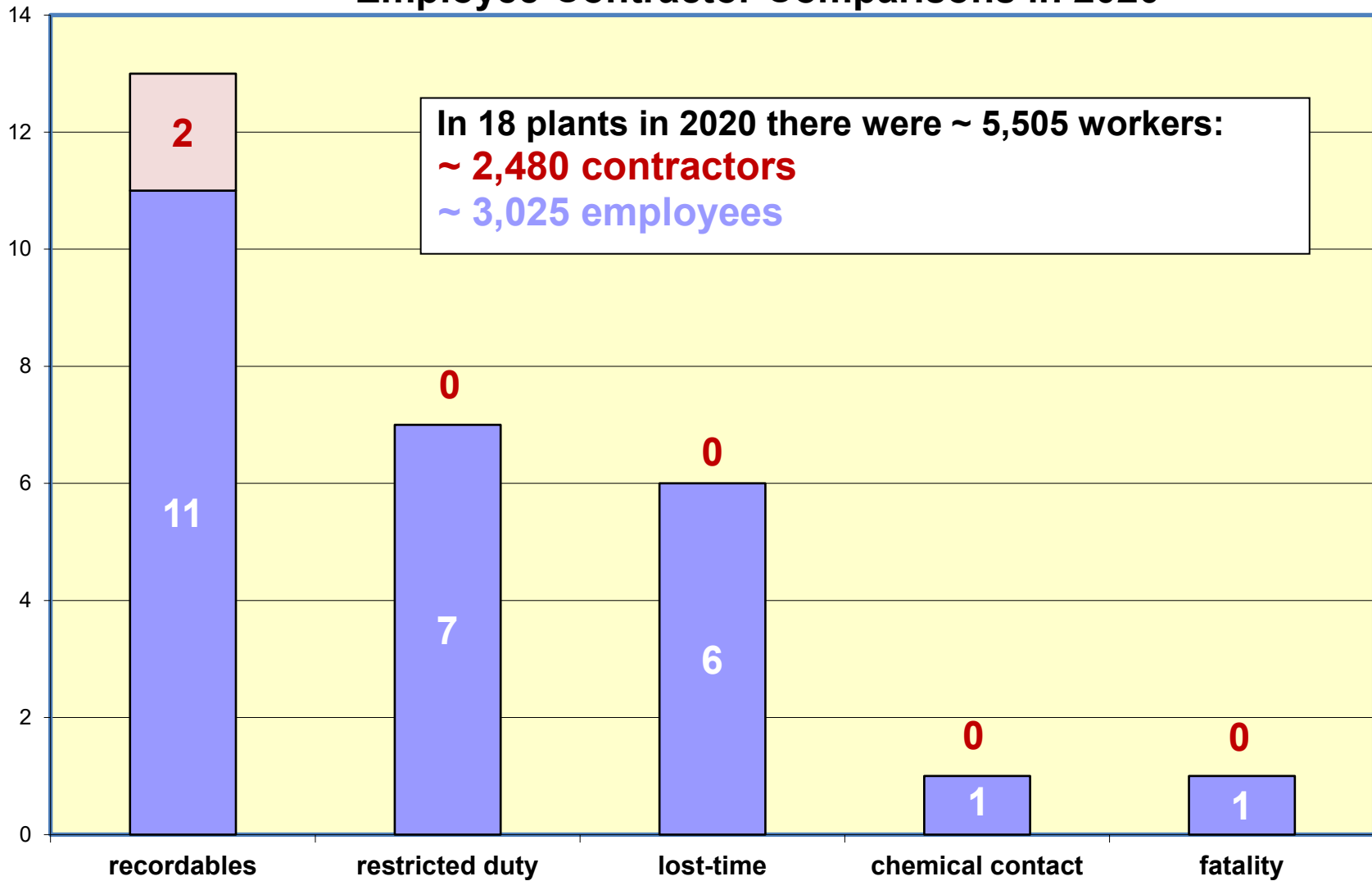
* No Contractors

**In 2020, recordable injuries were not a result of the following categories: Overexertion, Dehydration, Heat Exhaustion; Repetitive Motion; Hearing Shift; Insect Stings; or COVID-19.

Recordables from Chemical Contact or Exposure in 2020



Employee-Contractor Comparisons in 2020



PCAC EMPLOYEE-CONTRACTOR COMPARISON -- NUMBERS OF RECORDABLES for 2020

* No contractors.

2020 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	257,735	68,932	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Air Products	130,033	17,253	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Albemarle	331,017	232,536	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
BASF	150,890	141,636	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Chevron Pasadena Refinery	839,597	1,324,360	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0
Chevron Phillips Chemical	801,503	494,433	1	0	1	0	1	0	1	0	0	0	0	0	0	0	0	0
Enterprise Products	124,017	5,012	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0
Ethyl	20,798	13,214	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Evonik	106,642	28,580	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Gulf Coast Authority	58,352	7,388	1	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0
INEOS Phenol	99,650	123,510	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Intercontinental Terminals	188,325	175,772	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0
KM Export Terminals *	41,373	*	0	*	0	*	0	*	0	*	0	*	0	*	0	*	0	*
KM Liquids Terminals ¶	493,320	¶	1	¶	1	¶	1	¶	0	¶	0	¶	1	¶	0	¶	0	¶
LyondellBasell Houston Refining	1,886,913	2,339,702	1	1	0	0	1	0	0	0	1	0	0	0	0	0	0	0
OxyVinyls Pasadena PVC	311,821	134,504	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PCI Nitrogen	306,694	21,122	4	0	2	0	2	0	0	0	1	0	1	0	1	0	1	0
Sekisui	142,778	31,136	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL numbers	6,291,458	5,159,090	11	2	7	0	6	0	2	0	2	0	2	0	1	0	1	0
weighted avg. rec. rate	employee	contractor	0.35	0.08	0.22	0.00	0.19	0.00	0.06	0.00	0.06	0.00	0.06	0.00	0.03	0.00	0.03	0.00

¶ Not available- There were 2 contractor injuries not listed for 2020 because the Kinder Morgan Liquids Terminal cannot provide contractor hours. They were not lost-time cases.

PCAC EMPLOYEE - CONTRACTOR RECORDABLE RATES FOR 2020

* No contractors.

2020 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 Clemeical	257,735	68,932	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Air Products	130,033	17,253	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Albemarle	331,017	232,536	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
BASF	150,890	141,636	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Chevron Pasadena Refinery	839,597	1,324,360	0.24	0.15	0.24	0.00	0.00	0.00	0.00	0.00
Chevron Phillips Chemical	801,503	494,433	0.25	0.00	0.25	0.00	0.25	0.00	0.00	0.00
Enterprise Products	124,017	5,012	1.61	0.00	1.61	0.00	0.00	0.00	0.00	0.00
Ethyl	20,798	13,214	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Evonik	106,642	28,580	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Gulf Coast Authority	58,352	7,388	3.43	0.00	0.00	0.00	3.43	0.00	0.00	0.00
INEOS Phenol	99,650	123,510	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Intercontinental Terminals	188,325	175,772	1.06	0.00	1.06	0.00	0.00	0.00	0.00	0.00
KM Export Terminals *	41,373	*	0.00	*	0.00	*	0.00	*	0.00	*
KM Liquids Terminals ¶	493,320	¶	0.41	¶	0.41	¶	0.41	¶	0.00	¶
LyondellBasell Houston Refining	1,886,913	2,339,702	0.11	0.09	0.00	0.00	0.11	0.00	0.00	0.00
OxyVinyls Pasadena PVC	311,821	134,504	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
PCI Nitrogen	306,694	21,122	2.61	0.00	1.30	0.00	1.30	0.00	0.65	0.00
Sekisui	142,778	31,136	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
TOTALS & WEIGHTED AVERAGES	6,291,458	5,159,090	0.35	0.08	0.22	0.00	0.19	0.00	0.03	0.00
Number of recordables			11	2	7	0	6	0	1	0

* no contractors

¶ Not available- There were 2 contractor injuries not listed for 2020 because the Kinder Morgan Liquids Terminal cannot provide contractor hours. They were not lost-time cases.

PCAC EMPLOYEE RECORDABLE RATES FOR 2020

10 of 18 plants with no employee recordables in 2020

2020 employee rates in ALPHABETICAL ORDER	employee work hours	employee recordable rate
Afton Chemical	257,735	0.00
Air Products	130,033	0.00
Albemarle	331,017	0.00
BASF	150,890	0.00
Chevron Pasadena Refinery	839,597	0.24
Chevron Phillips Chemical	801,503	0.25
Enterprise Products	124,017	1.61
Ethyl	20,798	0.00
Evonik	106,642	0.00
Gulf Coast Authority	58,352	3.43
INEOS Phenol	99,650	0.00
Intercontinental Terminals	188,325	1.06
KM Export Terminals *	41,373	0.00
KM Liquids Terminals ¶	493,320	0.41
LyondellBasell Houston Refining	1,886,913	0.11
OxyVinyls Pasadena PVC	311,821	0.00
PCI Nitrogen	306,694	2.61
Sekisui	142,778	0.00
TOTALS & WEIGHTED AVERAGES	6,291,458	0.35

2020 employee rates in order FROM BEST TO HIGHEST RATE	employee work hours	employee recordable rate
Afton Chemical	257,735	0.00
Air Products	130,033	0.00
Albemarle	331,017	0.00
BASF	150,890	0.00
Ethyl	20,798	0.00
Evonik	106,642	0.00
INEOS Phenol	99,650	0.00
KM Export Terminals *	41,373	0.00
OxyVinyls Pasadena PVC	311,821	0.00
Sekisui	142,778	0.00
LyondellBasell Houston Refining	1,886,913	0.11
Chevron Pasadena Refinery	839,597	0.24
Chevron Phillips Chemical	801,503	0.25
KM Liquids Terminals *	493,320	0.41
Intercontinental Terminals	188,325	1.06
Enterprise Products	124,017	1.61
PCI Nitrogen	306,694	2.61
Gulf Coast Authority	58,352	3.43
TOTALS & WEIGHTED AVERAGES	6,291,458	0.35

Number of recordables 11

Median for employees 0.00
Range for employees 0.00 to 3.43
10 plants with 0.00 for employees

PCAC CONTRACTOR RECORDABLE RATES FOR 2020

14 plants with no contractor recordables in 2020

2020 contractor rates in ALPHABETICAL ORDER	contractor work hours	contractor recordable rate
Afton Chemical	68,932	0.00
Air Products	17,253	0.00
Albemarle	232,536	0.00
BASF	141,636	0.00
Chevron Pasadena Refinery	1,324,360	0.15
Chevron Phillips Chemical	494,433	0.00
Enterprise Products	5,012	0.00
Ethyl	13,214	0.00
Evonik	28,580	0.00
Gulf Coast Authority	7,388	0.00
INEOS Phenol	123,510	0.00
Intercontinental Terminals	175,772	0.00
KM Export Terminals *	*	*
KM Liquids Terminals ¶	¶	¶
LyondellBasell Houston Refining	2,339,702	0.09
OxyVinyls Pasadena PVC	134,504	0.00
PCI Nitrogen	21,122	0.00
Sekisui	31,136	0.00
TOTALS & WEIGHTED AVERAGES	5,159,090	0.08

2020 contractor rates in order FROM BEST TO HIGHEST	contractor work hours	contractor recordable rate
Afton Chemical	68,932	0.00
Air Products	17,253	0.00
Albemarle	232,536	0.00
BASF	141,636	0.00
Chevron Phillips Chemical	494,433	0.00
Enterprise Products	5,012	0.00
Ethyl	13,214	0.00
Evonik	28,580	0.00
Gulf Coast Authority	7,388	0.00
INEOS Phenol	123,510	0.00
Intercontinental Terminals	175,772	0.00
OxyVinyls Pasadena PVC	134,504	0.00
PCI Nitrogen	21,122	0.00
Sekisui	31,136	0.00
LyondellBasell Houston Refining	2,339,702	0.09
Chevron Pasadena Refinery	1,324,360	0.15
KM Export Terminals *	*	*
KM Liquids Terminals ¶	¶	¶
TOTALS & WEIGHTED AVERAGES	5,159,090	0.08

Number of recordables

2

Median for contractors

0.00

Range for contractors

0.00 to 0.15

14 plants with 0.00 for contractors

¶ Not available- There were 2 contractor injuries not listed for 2020 because the Kinder Morgan Liquids Terminal cannot provide contractor hours. They were not lost-time cases.

Comparing Recordable Rates within OSHA's Nationwide Industry Groups

2019 NATIONAL DATA	NAICS CODE	INDUSTRY GROUP	2020 Total Plant Recordable Rate	2019 NAICS group rate
Gulf Coast Authority	221320	Sewage Treatment Facilities	3.04	5.30
Chevron Pasadena Refinery	324110	Petroleum Refineries	0.18	0.40
LyondellBasell Houston Refining	324110	Petroleum Refineries	0.09	
INEOS Phenol	325110	Petrochemical Manufacturing	0.00	1.80
Air Products	325120	Industrial Gas Manufacturing	0.00	1.50
Afton Chemical	325199	All Other Basic Organic Chemicals	0.00	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	0.00	
Evonik	325199	All Other Basic Organic Chemicals	0.00	
Chevron Phillips Chemical	325211	Plastics Material and Resin Manufacturing	0.15	1.90
OxyVinyls Pasadena PVC	325211	Plastics Material and Resin Manufacturing	0.00	
Sekisui	325211	Plastics Material and Resin Manufacturing	0.00	
PCI Nitrogen	325312	Fertilizer Manufacturing	2.44	0.90
Enterprise Products	424710	Petroleum Bulk and Terminals	1.55	2.00
Intercontinental Terminals	49319	Bulk Liquid Storage Facility	0.55	2.80
KM Export Terminal *	493190	Other Warehousing and Storage	0.00	
KM Liquids Terminal ¶	493190	Other Warehousing and Storage	0.41	

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 1 PCAC plant performed better than those in the same industry code group.

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	2020 Total Recordable Rate	OSHA Voluntary Protection Program (VPP) since —	Working toward OSHA VPP or OSHA Challenge
Afton Chemical	0.00		
Air Products	0.00		
Albemarle	0.00		
BASF	0.00		
Chevron Pasadena Refinery	0.18		
Chevron Phillips Chemical	0.15	2015	
Enterprise Products	1.55		
Ethyl	0.00		
Evonik	0.00		
Gulf Coast Authority	3.04		
INEOS Phenol	0.00		
Intercontinental Terminals	0.55		VPP and Challenge
KM Export Terminals *	0.00		
KM Liquids Terminals ¶	0.41		
LyondellBasell Houston Refining	0.09		
OxyVinyls Pasadena PVC	0.00	1991	
PCI Nitrogen	2.44		
Sekisui	0.00		VPP
Totals		2 VPP	2 VPP/ Challenge

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

0.18 weighted avg.
 0.28 weighted avg

IN LISTED PROGRAMS

work hours no. of recordables

Chevron Phillips Chemical	1,295,936	1
Intercontinental Terminals	364,097	1
OxyVinyls Pasadena PVC	446,325	0
Sekisui	173,914	0
	2,280,272	2

WEIGHTED AVERAGE**0.18****NOT IN LISTED PROGRAMS**

work hours no. of recordables

Afton Chemical	326,667	0
Air Products	147,286	0
Albemarle	563,553	0
BASF	292,526	0
Chevron Pasadena Refinery	2,163,957	2
Enterprise Products	129,029	1
Ethyl	34,012	0
Evonik	135,222	0
Gulf Coast Authority	65,740	1
INEOS Phenol	223,160	0
KM Export Terminals *	41,373	0
KM Liquids Terminals ¶	493,320	1
LyondellBasell Houston Refining	4,226,615	2
PCI Nitrogen	327,816	4
	7,840,244	11

WEIGHTED AVERAGE**0.28**

PCAC ANNUAL SAFETY REPORT FOR CALENDAR YEAR 2020 -- DETAILS PLANT BY PLANT

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

Additional details in other worksheets

Plant details for 2020	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	Restricted Duty Rate	Lost-Time Rate	Fatality Rate	Total Recordable Rate for 2020
Afton Chemical employees	257,735	0	0	0	0	0	0	0	0	0.00	0.00	0.00	0.00
Afton Chemical contractors	68,932	0	0	0	0	0	0	0	0	0.00	0.00	0.00	0.00
Afton Chemical plant total	326,667	0	0	0	0	0	0	0	0	0.00	0.00	0.00	0.00
Air Products employees	130,033	0	0	0	0	0	0	0	0	0.00	0.00	0.00	0.00
Air Products contractors	17,253	0	0	0	0	0	0	0	0	0.00	0.00	0.00	0.00
Air Products plant total	147,286	0	0	0	0	0	0	0	0	0.00	0.00	0.00	0.00
Albemarle Pasadena employees	331,017	0	0	0	0	0	0	0	0	0.00	0.00	0.00	0.00
Albemarle Pasadena contractors	232,536	0	0	0	0	0	0	0	0	0.00	0.00	0.00	0.00
Albemarle Pasadena plant total	563,553	0	0	0	0	0	0	0	0	0.00	0.00	0.00	0.00
BASF Pasadena employees	150,890	0	0	0	0	0	0	0	0	0.00	0.00	0.00	0.00
BASF Pasadena contractors	141,636	0	0	0	0	0	0	0	0	0.00	0.00	0.00	0.00
BASF Pasadena plant total	292,526	0	0	0	0	0	0	0	0	0.00	0.00	0.00	0.00
Chevron Pasadena Refinery employees	839,597	1	1	0	0	0	0	0	0	0.24	0.00	0.00	0.24
Chevron Pasadena Refinery contractors	1,324,360	1	0	0	0	0	0	0	0	0.00	0.00	0.00	0.15
Chevron Pasadena Refinery plant total	2,163,957	2	1	0	0	0	0	0	0	0.09	0.00	0.00	0.18
<i>Was Crown Central Petroleum, then Pasadena Refining (until 2019)</i>													
Chevron Phillips Chemical employees	801,503	1	1	1	1	0	0	0	0	0.25	0.25	0.00	0.25
Chevron Phillips Chemical contractors	494,433	0	0	0	0	0	0	0	0	0.00	0.00	0.00	0.00
Chevron Phillips Chemical plant total	1,295,936	1	1	1	1	0	0	0	0	0.15	0.15	0.00	0.15
Enterprise Products employees	124,017	1	1	0	0	0	0	0	0	1.61	0.00	0.00	1.61
Enterprise Products contractors	5,012	0	0	0	0	0	0	0	0	0.00	0.00	0.00	0.00
Enterprise Products plant total	129,029	1	1	0	0	0	0	0	0	1.55	0.00	0.00	1.55
Ethyl employees	20,798	0	0	0	0	0	0	0	0	0.00	0.00	0.00	0.00
Ethyl contractors	13,214	0	0	0	0	0	0	0	0	0.00	0.00	0.00	0.00
Ethyl plant total	34,012	0	0	0	0	0	0	0	0	0.00	0.00	0.00	0.00
Evonik employees	106,642	0	0	0	0	0	0	0	0	0.00	0.00	0.00	0.00
Evonik contractors	28,580	0	0	0	0	0	0	0	0	0.00	0.00	0.00	0.00
Evonik plant total	135,222	0	0	0	0	0	0	0	0	0.00	0.00	0.00	0.00
<i>Joined 2017</i>													
Gulf Coast Authority employees	58,352	1	0	1	1	0	0	0	0	0.00	3.43	0.00	3.43
Gulf Coast Authority contractors	7,388	0	0	0	0	0	0	0	0	0.00	0.00	0.00	0.00
Gulf Coast Authority plant total	65,740	1	0	1	1	0	0	0	0	0.00	3.04	0.00	3.04
<i>Joined 2009</i>													

Plant details for 2020	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	Restricted Duty Rate	Lost-Time Rate	Fatality Rate	Total Recordable Rate for 2020
INEOS Phenol employees	99,650	0	0	0	0	0	0	0	0	0.00	0.00	0.00	0.00
INEOS Phenol contractors	123,510	0	0	0	0	0	0	0	0	0.00	0.00	0.00	0.00
INEOS Phenol plant total	223,160	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	188,325	1	1	0	0	0	0	0	0	1.06	0.00	0.00	1.06
Intercontinental Terminals contr	175,772	0	0	0	0	0	0	0	0	0.00	0.00	0.00	0.00
Intercontinental Terminals total	364,097	1	1	0	0	0	0	0	0	0.55	0.00	0.00	0.55
<i>Joined 2014 when under construction</i>													
KM Export Terminals employees	41,373	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 *	41,373	0	0	0	0	0	0	0	0	0.00	0.00	0.00	0.00
<i>Joined 2017</i>													
KM Liquids Terminals employees	493,320	1	1	1	0	0	1	0	0	0.41	0.41	0.00	0.41
KM Liquids Terminals contractors	¶	¶	¶	¶	¶	¶	¶	¶	¶	¶	¶	¶	¶
KM Liquids Terminals plant total ¶	493,320	1	1	1	0	0	1	0	0	0.41	0.41	0.00	0.41
<i>¶ KMLT had 2 contractor injuries in 2020 but was unable to provide contractor hours</i>													
LyondellBasell Houston Refining empl	1,886,913	1	0	1	0	1	0	0	0	0.00	0.11	0.00	0.11
LyondellBasell Houston Refining contr	2,339,702	1	0	0	0	0	0	0	0	0.00	0.00	0.00	0.09
LyondellBasell Houston Refining total	4,226,615	2	0	1	0	1	0	0	0	0.00	0.05	0.00	0.09
OxyVinyls Pasadena PVC employees	311,821	0	0	0	0	0	0	0	0	0.00	0.00	0.00	0.00
OxyVinyls Pasadena PVC contractors	134,504	0	0	0	0	0	0	0	0	0.00	0.00	0.00	0.00
OxyVinyls Pasadena PVC plant total	446,325	0	0	0	0	0	0	0	0	0.00	0.00	0.00	0.00
PCI Nitrogen employees	306,694	4	2	2	0	1	1	1	1	1.30	1.30	0.65	2.61
PCI Nitrogen contractors	21,122	0	0	0	0	0	0	0	0	0.00	0.00	0.00	0.00
PCI Nitrogen plant total	327,816	4	2	2	0	1	1	1	1	1.22	1.22	0.61	2.44
<i>Was Agrifos, then Rentech Nitrogen, then PCI Nitrogen</i>													
Sekisui employees	142,778	0	0	0	0	0	0	0	0	0.00	0.00	0.00	0.00
Sekisui contractors	31,136	0	0	0	0	0	0	0	0	0.00	0.00	0.00	0.00
Sekisui plant total	173,914	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 - 2020													blanks mean plant was not yet built or in PCAC								
Historic Plant Details	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	0.00	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															
Afton Chemical plant total	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	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	0.33	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	0.53	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	0.93	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	0.67	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	1.19	1.07	1.01	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	1.92	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	0.74	1.37	0.27	0.00	0.00	0.00	0.68	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	0.24	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	0.15	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	0.18	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	0.25	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	0.46	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	0.15	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	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	12.14	0.57	0.00	**							
Enterprise Products plant total	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	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	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	3.00																	
Evonik contractors	0.00	0.00	0.00	0.00																	
Evonik plant total	0.00	0.00	0.00	2.36																	
<i>Joined in 2017</i>																					
Gulf Coast Authority employees	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	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	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	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	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	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>																					

Historic Plant Details	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	1.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00													
Intercontinental Terminals contr	0.00	0.43	0.43	0.00	0.28	0.78	0.00	0.00													
Intercontinental Terminals total	0.55	0.33	0.35	0.00	0.25	0.71	0.00	0.00													
<i>Joined 2014 when under construction</i>																					
KM Export Terminals employees	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																	
<i>Joined in 2017</i>																					
KM Liquids Terminals employees	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	¶	0.97	¶	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	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	0.11	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	0.09	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	0.09	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	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	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
OxyVinyls Pasadena PVC plant total	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
<i>2001 -- used contractors but no data. 2000 -- no contractors; employees performed maintenance work. Was Agrifos, then Rentech Nitrogen. 2019: No restricted duty</i>																					
Sekisui employees	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	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	1.39	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																					