



2012
Survey of Occupational
Injuries, Illnesses, and Fatalities in the
Petroleum Industry Summary Report
Aggregate Data Only

*Covering Petroleum Operations of
Reporting Companies*

API Publication 2391
March 2013



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Table of Contents

Page

INTRODUCTION	1
SUMMARY	3
TABLES	
U.S. Operations: Company Employees for 2012 Totals by Function	8
U.S. Operations: Contract Workers for 2012 Totals by Function	9
Non-U.S. Operations: Company Employees for 2012 Totals by Function	10
Non-U.S. Operations: Contract Workers for 2012 Totals by Function	11
FATALITIES	
2012 Summary of Fatal Injuries in the Petroleum Industry	17
APPENDIX	
Survey on Petroleum Industry Occupational Injuries, Illnesses, and Fatalities Guidelines and Definitions	Appendix A-1

INTRODUCTION

The Survey on Petroleum Industry Occupational Injuries, Illnesses and Fatalities (OII) is conducted annually. Participation is voluntary and the number of participating companies varies from year to year. Therefore, exercise caution when using this data to characterize the performance of the industry as a whole.

The Survey's results are documented in the *2012 Benchmarking Survey of Occupational Injuries, Illnesses, and Fatalities in Petroleum Industry: Report to Participants*. This report is only available on *The Occupational Injuries, Illnesses and Fatalities Reporting System* website (<http://oii.api.org>). Access to this report is limited to participating companies.

Participants are asked to submit data according to the Bureau of Labor Statistics (BLS) guidelines. Therefore, this report provides incidence rates per 200,000 hours worked on the same basis as those reported by BLS.

BACKGROUND

API has been collecting data regarding workplace injuries, illnesses and fatalities in *The Survey on Occupational Injuries, Illnesses and Fatalities (OII)* since 1931. Prior to the 1999 survey, companies submitted employee data for their U.S. operations only. In 2000, API expanded the scope of the *OII* and began collecting employee and contract worker data for operations both inside and outside of the U.S.

A second change introduced in 2000 gave participants the ability to submit their data electronically over the Internet using *The Occupational Injuries, Illnesses and Fatalities Reporting System* at <http://oii.api.org/>. Features of this online database include automatic data checks, online instructions, and reports. In addition, for companies willing to share their data have the ability to produce customized benchmarking reports.

While conducting the 2001 survey, API learned that a number of companies no longer track certain data. Consequently, it was decided to make those data fields optional in the 2002 survey. These optional data fields are "The Average Number of Employees", "Job Transfer or Restriction", "All Injury Cases" and "All Illness Cases".

In 2010, the Occupational Injuries, Illnesses, And Fatalities Reporting System was redesigned. The data entry forms are more user-friendly and the reporting features now give participants the following capabilities:

- Create customized company specific ad-hoc reports for benchmarking
- Create trending reports that include graphs
- Create, edit and save report templates
- Export reports in the following formats: Excel, Word, CSV, PDF, XML, MHTML or TIFF

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SUMMARY

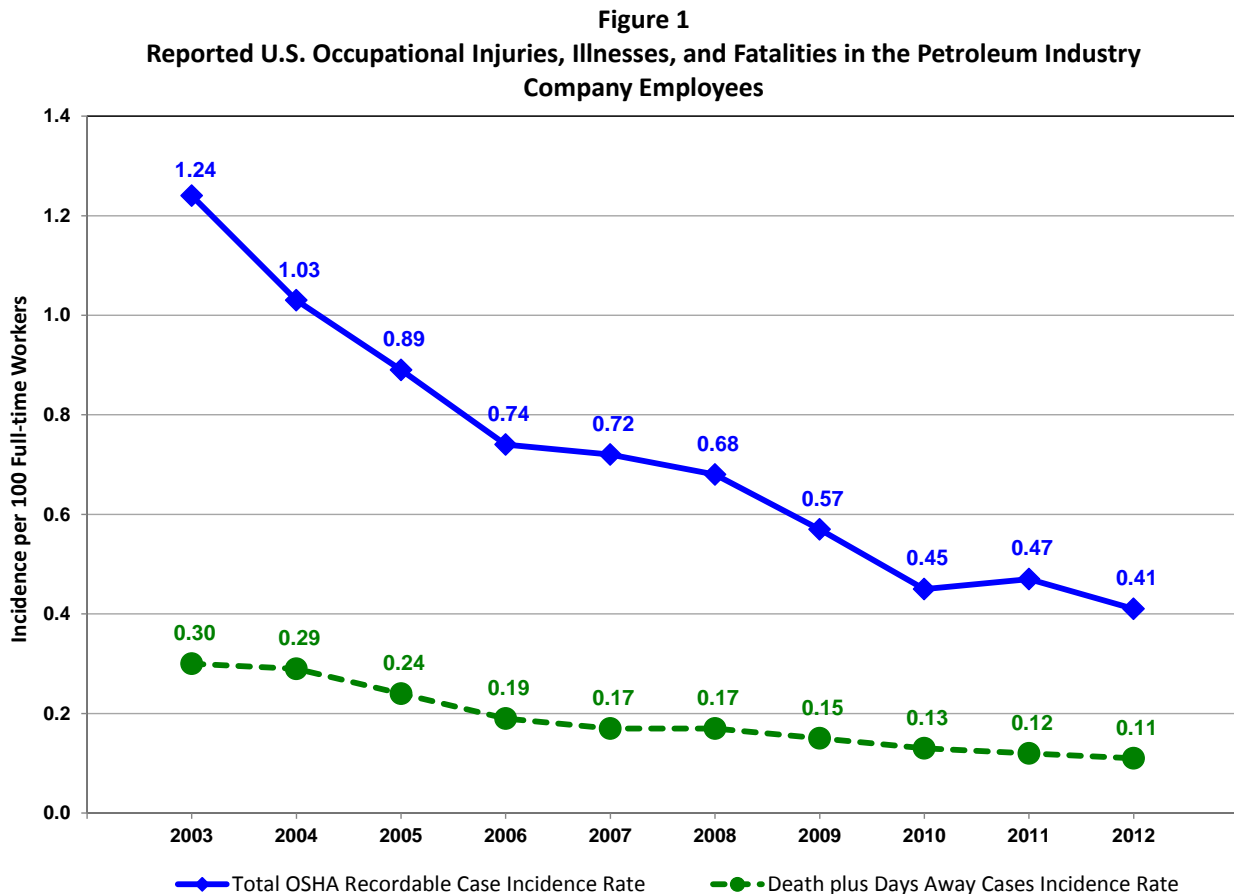
U.S. Operations: Company Employees

Data pertaining to 2012 U.S. occupational injuries, illnesses and fatalities for an employer's own employees were submitted to the American Petroleum Institute (API) by forty-four oil and natural gas companies and their subsidiaries, employing persons with a total work experience of 379 million hours. In 2011, forty-one companies reported 307 million hours.

In 2012, the *Total OSHA Recordable Case Incidence Rate* reported was 0.41, compared to 0.47 for 2011. This rate is the number of total recordable cases per 200,000 hours worked, or approximately the number of cases per 100 full-time workers per year.

The *Death Plus Days Away Incidence Rate* reported for 2012 was 0.11 per 200,000 hours worked—or one case for every 909 employees, compared to 0.12 in 2011—or one case for every 833 employees.

Since 2003, the reported *Total OSHA Recordable Case Incidence Rate* and *Death plus Days Away Incidence Rate* have improved an average of 10.6 and 10.5 percent per year, respectively (see the figure below).



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The total OSHA recordable incidence rate as reported to API declined 66.9 percent during the past ten years. The following graphs show the ten-year trend for selected U.S. petroleum industry sectors.

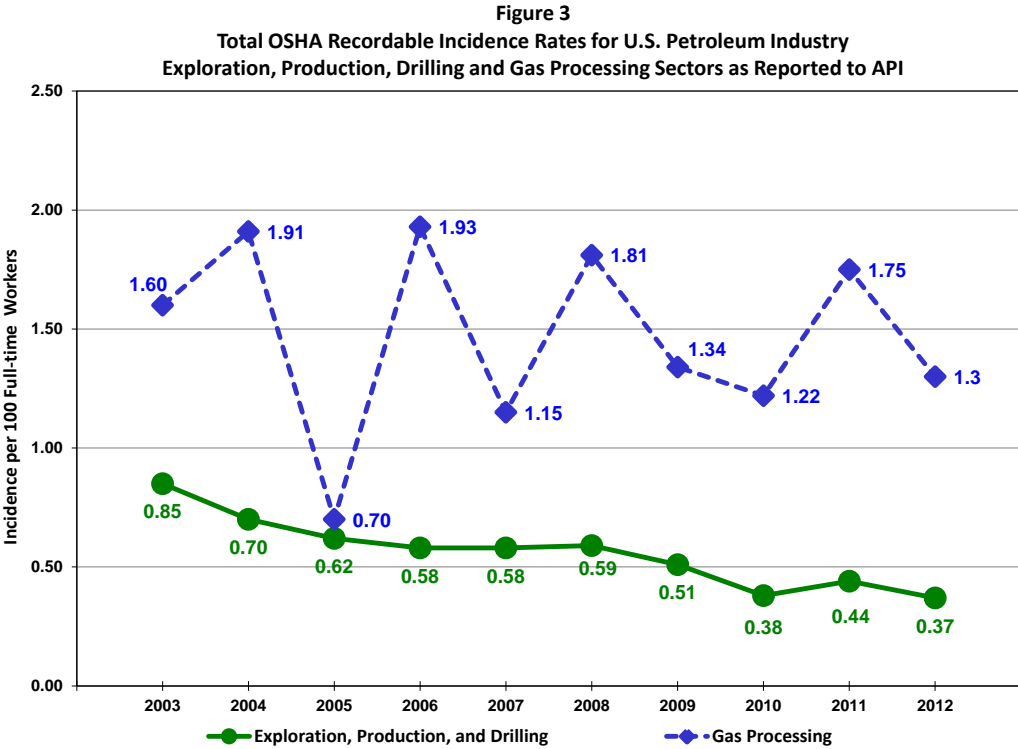
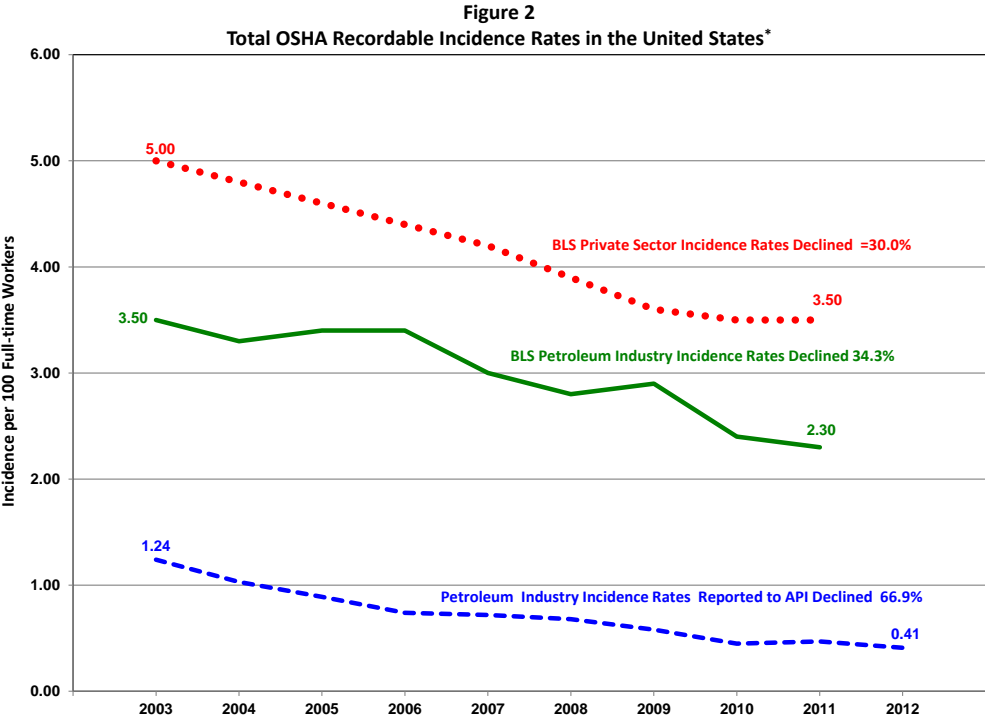


Figure 4
Total OSHA Recordable Incidence Rates for U.S. Petroleum Industry
Marketing and Refining Sectors as Reported to API

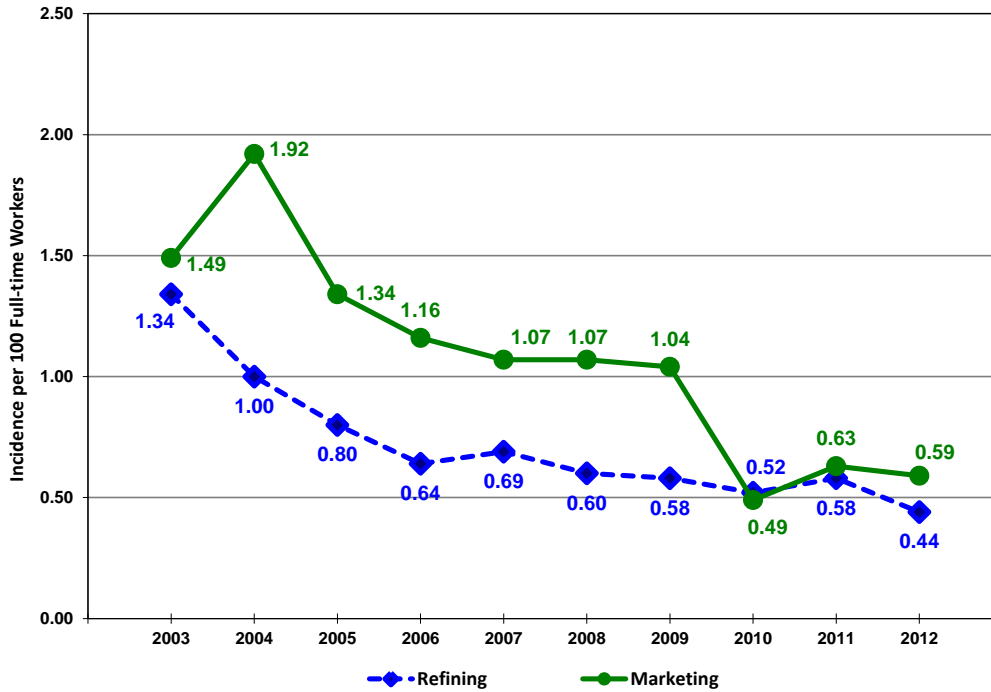
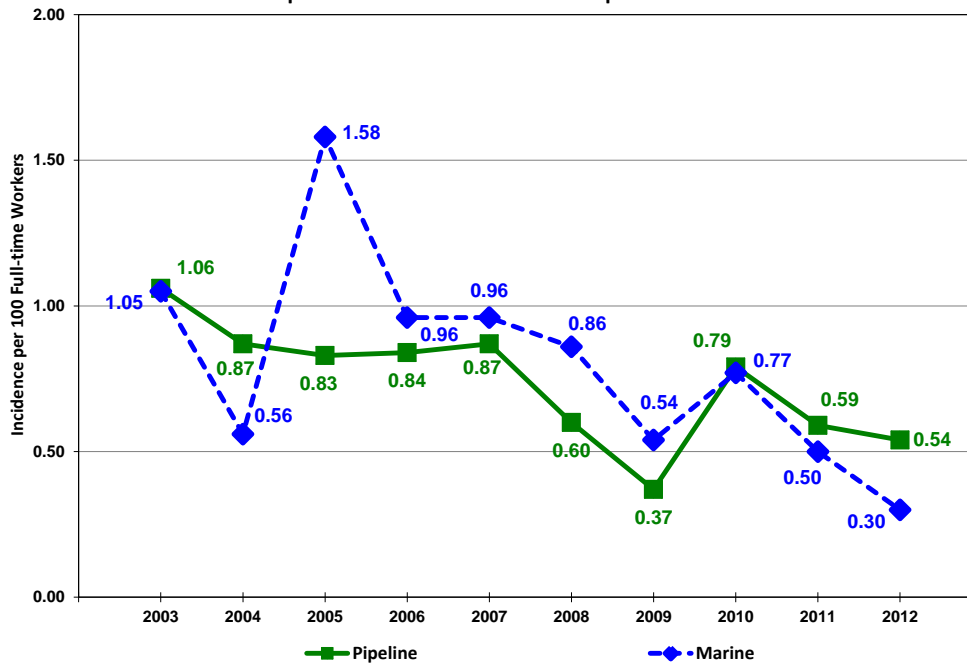


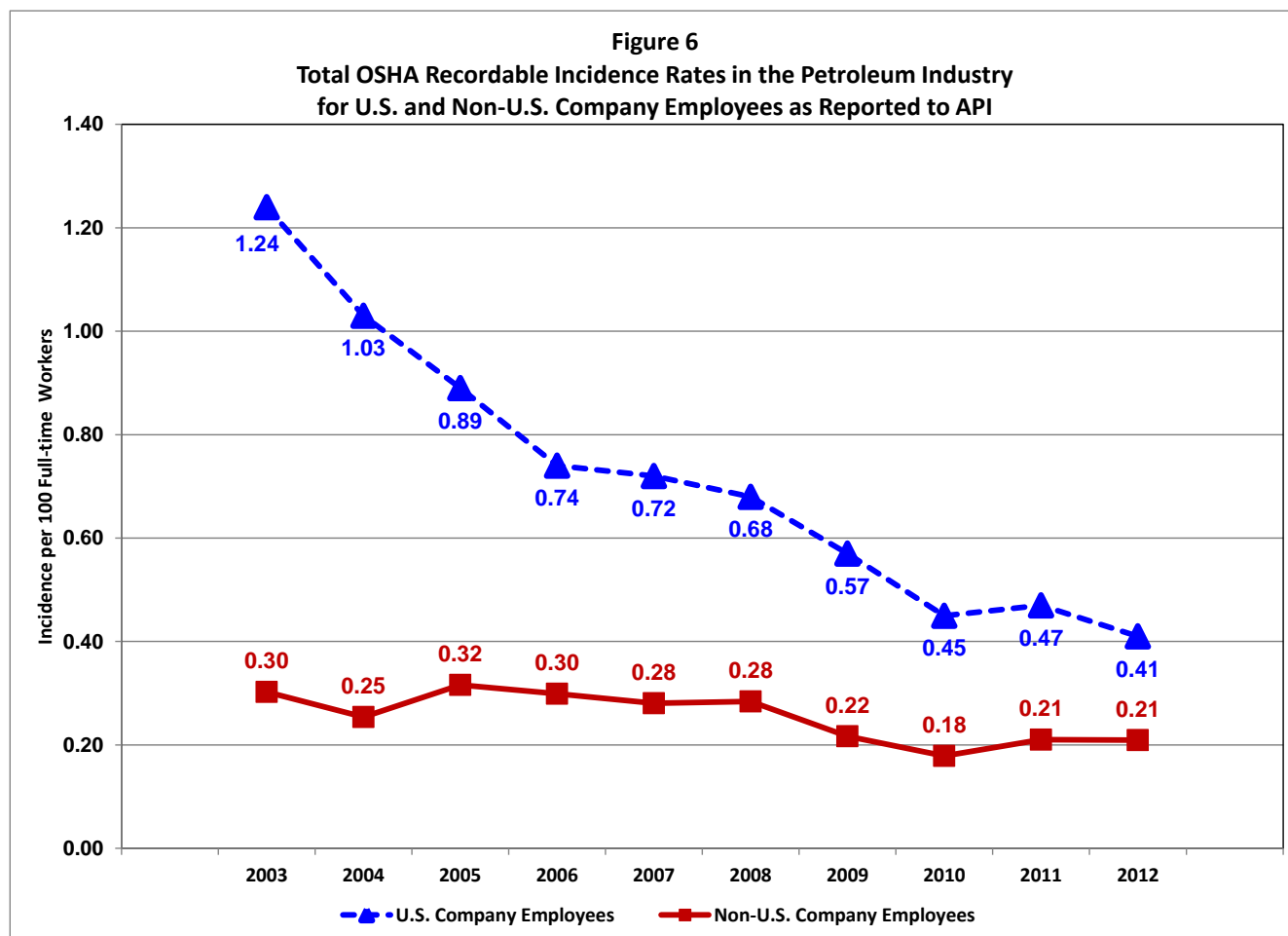
Figure 5
Total OSHA Recordable Incidence Rates for U.S. Petroleum Industry
Pipeline¹ and Marine Sectors as Reported to API



¹ Excludes trucking related to pipeline operations.

Non-U.S. Operations: Company Employees

Fifteen companies reported non-U.S. employee data. During 2012, these employees had a total work experience of 373 million hours. For this group, the reported *Total OSHA Recordable Case Incidence Rate* was 0.21. Their *Death plus Days Away Incidence Rate* was 0.05 per 200,000 hours worked—or one case for every 2,000 employees. The following graph compares the rates for U.S. and Non-U.S. company employees.

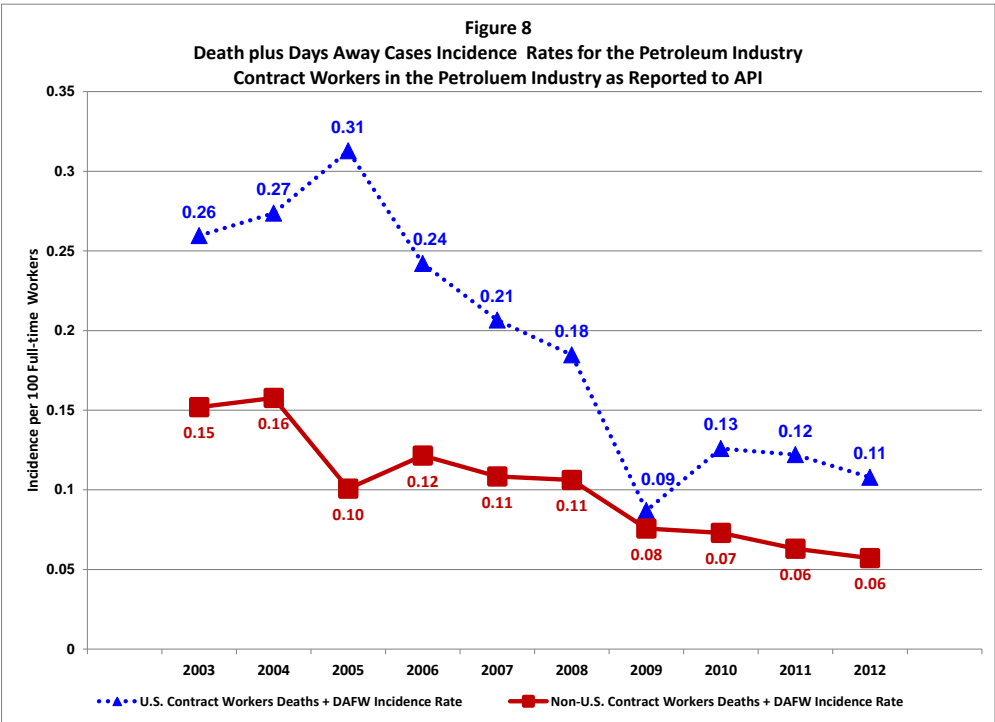
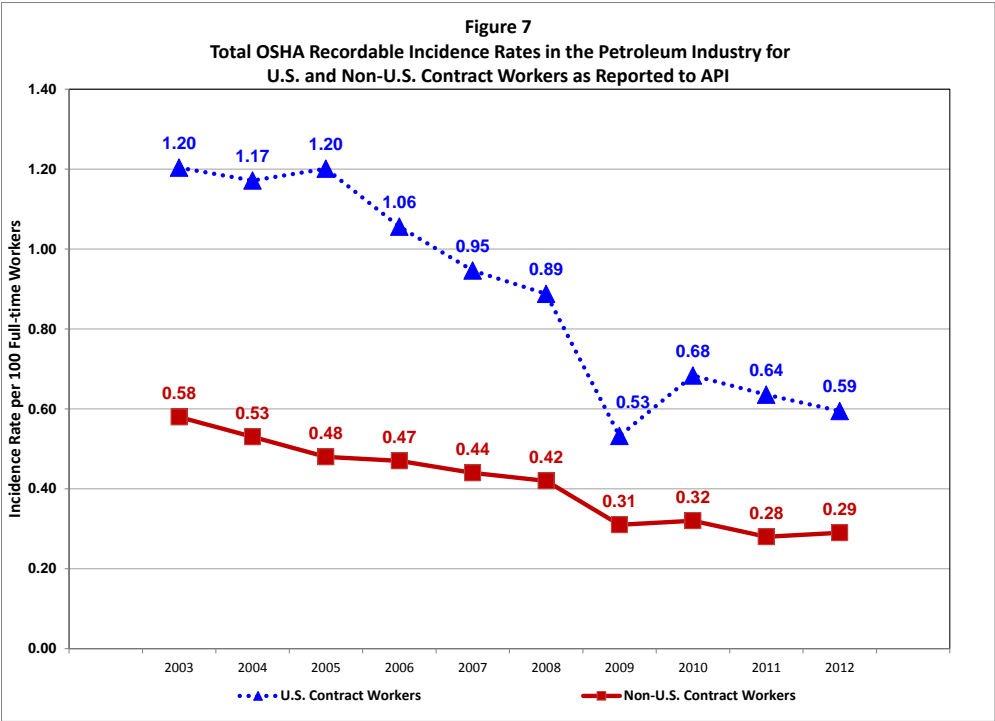


U.S. and Non-U.S. Operations: Contract Workers

In 2012, thirty-seven oil and natural gas companies and their subsidiaries submitted contract worker data for their U.S. operations. These workers provided 627 million hours of service to these companies. The *Total OSHA Recordable Case Incidence Rate* reported for these contract workers was 0.59. The *Death plus Days Away Incidence Rate* reported for this group of workers was 0.11 per 200,000 hours worked—or one case for every 909 workers.

Fourteen companies reported data for non-U.S. contract workers. In 2012, this category of worker performed a total of 931 million hours in their non-U.S. operations. The *Total OSHA Recordable Case Incidence Rate* reported for these contract workers was 0.29. The *Death plus Days Away Incidence Rate* reported for this group of workers was 0.06 per 200,000 hours worked—or one case for every 1,667 workers.

U.S. and Non-U.S. contract workers *Total OSHA Recordable Case and Death plus Days Away Incidence Rates* are compared in the following graphs.



TABLES

Survey of Occupational Injuries, Illnesses, and Fatalities
U.S. Operations: Company Employees for 2012
Totals by Function

Function Name	Total Hours Worked (Thousands)	OSHA Recordable Cases Classified by Severity		Total OSHA Recordable Cases	Incidence Rates*		
		Cases of Death	Days Away from Work		Incidence Rate Total OSHA Recordable Cases	Death plus Days Away From Work Cases	Days Away From Work Cases
TOTAL	378,860	7	199	782	0.41	0.11	0.11
A. UPSTREAM	111,021	1	41	211	0.38	0.08	0.07
1. Offshore Expl & Prodn & Drilling ¹	15,715	0	7	30	0.38	0.09	0.09
a. Exploration	287	0	0	0	0.00	0.00	0.00
b. Production	1,480	0	1	4	0.54	0.14	0.14
c. Drilling	847	0	0	0	0.00	0.00	0.00
d. Offshore-Not Separated	13,101	0	6	26	0.40	0.09	0.09
2. Onshore Expl & Prodn & Drilling ¹	68,445	1	21	127	0.37	0.06	0.06
a. Exploration	3,336	0	3	5	0.30	0.18	0.18
b. Production	8,444	0	2	14	0.33	0.05	0.05
c. Drilling	1,694	0	0	2	0.24	0.00	0.00
d. Onshore-Not Separated	54,971	1	16	106	0.39	0.06	0.06
3. Gas Processing	5,675	0	11	37	1.30	0.39	0.39
4. Upstream Support Services	21,186	0	2	17	0.16	0.02	0.02
B. DOWNSTREAM	157,433	2	80	361	0.46	0.10	0.10
1. Marketing-Wholesale	7,834	0	2	10	0.26	0.05	0.05
2. Marketing-Retail	20,241	1	36	78	0.77	0.37	0.36
3. Marketing-Not separated ²	13,198	0	2	34	0.52	0.03	0.03
4. Refining ¹	92,206	1	27	203	0.44	0.06	0.06
5. Lubricants/Specialties	10,794	0	4	15	0.28	0.07	0.07
6. Downstream Support Services	12,365	0	8	17	0.27	0.13	0.13
7. Trucking	795	0	1	4	1.01	0.25	0.25
C. PIPELINE	43,847	3	68	155	0.71	0.32	0.31
1. Pipeline-Liquid	23,017	0	22	70	0.61	0.19	0.19
2. Pipeline-Gas	5,694	0	5	21	0.74	0.18	0.18
3. Pipeline-Not separated ³	9,299	0	3	12	0.26	0.06	0.06
4. Trucking	5,837	3	38	52	1.78	1.40	1.30
D. MARINE	8,022	0	3	12	0.30	0.07	0.07
E. RESEARCH & DEV	9,185	0	1	7	0.15	0.02	0.02
F. SUPPORT SERVICES ⁴	49,352	1	6	36	0.15	0.03	0.02

¹ Includes Power Generation personnel that support this function.

² Marketing data unable to be separated into Wholesale or Retail functions.

³ Pipeline data unable to be separated into Liquid or Gas functions.

⁴ Not covered under Operating Segments.

* API Calculated Fields:

Total OSHA Recordable Case Incidence Rate = Total OSHA Recordable Cases multiplied by 200 divided by the hours worked (in thousands)

Death plus Days Away From Work Cases Incidence Rate = Death plus Days Away From Work Cases multiplied by 200 divided by the hours worked (in thousands)

Days Away From Work Cases Incidence Rate = Days Away From Work Cases multiplied by 200 divided by the hours worked (in thousands)

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Survey of Occupational Injuries, Illnesses, and Fatalities
U.S. Operations: Contract Workers for 2012
Totals by Function

Function Name	Total Hours Worked (Thousands)	OSHA Recordable Cases Classified by Severity		Total OSHA Recordable Cases	Incidence Rates*		
		Cases of Death	Days Away from Work		Incidence Rate Total OSHA Recordable Cases	Death plus Days Away From Work Cases	Days Away From Work Cases
TOTAL	626,598	10	328	1,863	0.59	0.11	0.10
A. UPSTREAM	373,812	7	276	1,384	0.74	0.15	0.15
1. Offshore Expl & Prodn & Drilling ¹	47,088	0	16	116	0.49	0.07	0.07
a. Exploration	1,854	0	0	5	0.54	0.00	0.00
b. Production	3,335	0	1	13	0.78	0.06	0.06
c. Drilling	4,258	0	1	10	0.47	0.05	0.05
d. Offshore-Not Separated	37,641	0	14	88	0.47	0.07	0.07
2. Onshore Expl & Prodn & Drilling ¹	303,363	7	238	1,160	0.76	0.16	0.16
a. Exploration	19,267	0	16	48	0.50	0.17	0.17
b. Production	45,023	0	54	199	0.88	0.24	0.24
c. Drilling	28,659	1	16	118	0.82	0.12	0.11
d. Onshore-Not Separated	210,414	6	152	795	0.76	0.15	0.14
3. Gas Processing	18,340	0	20	98	1.07	0.22	0.22
4. Upstream Support Services	5,021	0	2	10	0.40	0.08	0.08
B. DOWNSTREAM	181,401	1	35	322	0.36	0.04	0.04
1. Marketing-Wholesale	5,061	0	3	12	0.47	0.12	0.12
2. Marketing-Retail	1,886	0	0	2	0.21	0.00	0.00
3. Marketing-Not separated ²	10,500	0	2	21	0.40	0.04	0.04
4. Refining ¹	160,842	1	27	282	0.35	0.03	0.03
5. Lubricants/Specialties	2,061	0	1	3	0.29	0.10	0.10
6. Downstream Support Services	999	0	2	2	0.40	0.40	0.40
7. Trucking	52	0	0	0	0.00	0.00	0.00
C. PIPELINE	40,375	2	10	100	0.50	0.06	0.05
1. Pipeline-Liquid	26,346	1	7	69	0.52	0.06	0.05
2. Pipeline-Gas							
3. Pipeline-Not separated ³	14,029	1	3	31	0.44	0.06	0.04
4. Trucking							
D. MARINE	468	0	0	1	0.43	0.00	0.00
E. RESEARCH & DEV	1,216	0	0	0	0.00	0.00	0.00
F. SUPPORT SERVICES ⁴	29,326	0	7	56	0.38	0.05	0.05

¹ Includes Power Generation personnel that support this function.

² Marketing data unable to be separated into Wholesale or Retail functions.

³ Pipeline data unable to be separated into Liquid or Gas functions.

⁴ Not covered under Operating Segments.

* API Calculated Fields:

Total OSHA Recordable Case Incidence Rate = Total OSHA Recordable Cases multiplied by 200 divided by the hours worked (in thousands)

Death plus Days Away From Work Cases Incidence Rate = Death plus Days Away From Work Cases multiplied by 200 divided by the hours worked (in thousands)

Days Away From Work Cases Incidence Rate = Days Away From Work Cases multiplied by 200 divided by the hours worked (in thousands)

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Survey of Occupational Injuries, Illnesses, and Fatalities
Non-U.S. Operations: Company Employees for 2012
Totals by Function

Function Name	Total Hours Worked (Thousands)	OSHA Recordable Cases Classified by Severity		Total OSHA Recordable Cases	Incidence Rates*		
		Cases of Death	Days Away from Work		Incidence Rate Total OSHA Recordable Cases	Death plus Days Away From Work Cases	Days Away From Work Cases
TOTAL	373,374	2	83	391	0.21	0.05	0.04
A. UPSTREAM	164,667	1	12	124	0.15	0.02	0.01
1. Offshore Expl & Prodn & Drilling ¹	54,279	1	4	43	0.16	0.02	0.01
a. Exploration	263	0	0	0	0.00	0.00	0.00
b. Production	7,506	0	1	4	0.11	0.03	0.03
c. Drilling	591	0	0	1	0.34	0.00	0.00
d. Offshore-Not Separated	45,919	1	3	38	0.17	0.02	0.01
2. Onshore Expl & Prodn & Drilling ¹	106,662	0	6	72	0.14	0.01	0.01
a. Exploration	450	0	0	0	0.00	0.00	0.00
b. Production	7,958	0	3	14	0.35	0.08	0.08
c. Drilling	423	0	0	0	0.00	0.00	0.00
d. Onshore-Not Separated	97,831	0	3	58	0.12	0.01	0.01
3. Gas Processing	1,493	0	1	7	0.94	0.13	0.13
4. Upstream Support Services	2,233	0	1	2	0.18	0.09	0.09
B. DOWNSTREAM	145,458	0	55	156	0.21	0.08	0.08
1. Marketing-Wholesale	6,683	0	4	11	0.33	0.12	0.12
2. Marketing-Retail	1,262	0	0	0	0.00	0.00	0.00
3. Marketing-Not separated ²	82,118	0	35	81	0.20	0.09	0.09
4. Refining ¹	28,060	0	5	32	0.23	0.04	0.04
5. Lubricants/Specialties	25,496	0	9	27	0.21	0.07	0.07
6. Downstream Support Services	1,839	0	2	5	0.54	0.22	0.22
7. Trucking							
C. PIPELINE	39	0	0	0	0.00	0.00	0.00
1. Pipeline-Liquid	27	0	0	0	0.00	0.00	0.00
2. Pipeline-Gas							
3. Pipeline-Not separated ³	12	0	0	0	0.00	0.00	0.00
4. Trucking							
D. MARINE	14,324	0	6	23	0.32	0.08	0.08
E. RESEARCH & DEV	1,346	0	0	1	0.15	0.00	0.00
F. SUPPORT SERVICES ⁴	47,540	1	10	87	0.37	0.05	0.04

¹ Includes Power Generation personnel that support this function.

² Marketing data unable to be separated into Wholesale or Retail functions.

³ Pipeline data unable to be separated into Liquid or Gas functions.

⁴ Not covered under Operating Segments.

* API Calculated Fields:

Total OSHA Recordable Case Incidence Rate = Total OSHA Recordable Cases multiplied by 200 divided by the hours worked (in thousands)

Death plus Days Away From Work Cases Incidence Rate = Death plus Days Away From Work Cases multiplied by 200 divided by the hours worked (in thousands)

Days Away From Work Cases Incidence Rate = Days Away From Work Cases multiplied by 200 divided by the hours worked (in thousands)

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Survey of Occupational Injuries, Illnesses, and Fatalities
Non-U.S. Operations: Contract Workers for 2012
Totals by Function

Function Name	Total Hours Worked (Thousands)	OSHA Recordable Cases Classified by Severity		Total OSHA Recordable Cases	Incidence Rates*		
		Cases of Death	Days Away from Work		Incidence Rate Total OSHA Recordable Cases	Death plus Days Away From Work Cases	Days Away From Work Cases
TOTAL	930,800	15	251	1,369	0.29	0.06	0.05
A. UPSTREAM	769,990	11	183	1,099	0.29	0.05	0.05
1. Offshore Expl & Prodn & Drilling ¹	206,215	2	73	353	0.34	0.07	0.07
a. Exploration	1,642	0	0	0	0.00	0.00	0.00
b. Production	39,868	1	15	37	0.19	0.08	0.08
c. Drilling	14,398	0	19	37	0.51	0.26	0.26
d. Offshore-Not Separated	150,307	1	39	279	0.37	0.05	0.05
2. Onshore Expl & Prodn & Drilling ¹	559,567	9	104	738	0.26	0.04	0.04
a. Exploration	3,916	0	11	67	3.42	0.56	0.56
b. Production	8,921	0	8	16	0.36	0.18	0.18
c. Drilling	4,817	0	0	11	0.46	0.00	0.00
d. Onshore-Not Separated	541,913	9	85	644	0.24	0.03	0.03
3. Gas Processing	1,780	0	5	6	0.67	0.56	0.56
4. Upstream Support Services	2,428	0	1	2	0.16	0.08	0.08
B. DOWNSTREAM	119,505	4	55	195	0.33	0.10	0.09
1. Marketing-Wholesale	11,321	2	3	14	0.25	0.09	0.05
2. Marketing-Retail	11,471	0	10	15	0.26	0.17	0.17
3. Marketing-Not separated ²	48,039	1	26	67	0.28	0.11	0.11
4. Refining ¹	37,241	0	8	76	0.41	0.04	0.04
5. Lubricants/Specialties	11,406	1	8	23	0.40	0.16	0.14
6. Downstream Support Services	27	0	0	0	0.00	0.00	0.00
7. Trucking							
C. PIPELINE	13	0	0	1	15.38	0.00	0.00
1. Pipeline-Liquid							
2. Pipeline-Gas							
3. Pipeline-Not separated ³	13	0	0	1	15.38	0.00	0.00
4. Trucking							
D. MARINE	446	0	0	1	0.45	0.00	0.00
E. RESEARCH & DEV	5,365	0	0	6	0.22	0.00	0.00
F. SUPPORT SERVICES ⁴	35,481	0	13	67	0.38	0.07	0.07

¹ Includes Power Generation personnel that support this function.

² Marketing data unable to be separated into Wholesale or Retail functions.

³ Pipeline data unable to be separated into Liquid or Gas functions.

⁴ Not covered under Operating Segments.

* API Calculated Fields:

Total OSHA Recordable Case Incidence Rate = Total OSHA Recordable Cases multiplied by 200 divided by the hours worked (in thousands)

Death plus Days Away From Work Cases Incidence Rate = Death plus Days Away From Work Cases multiplied by 200 divided by the hours worked (in thousands)

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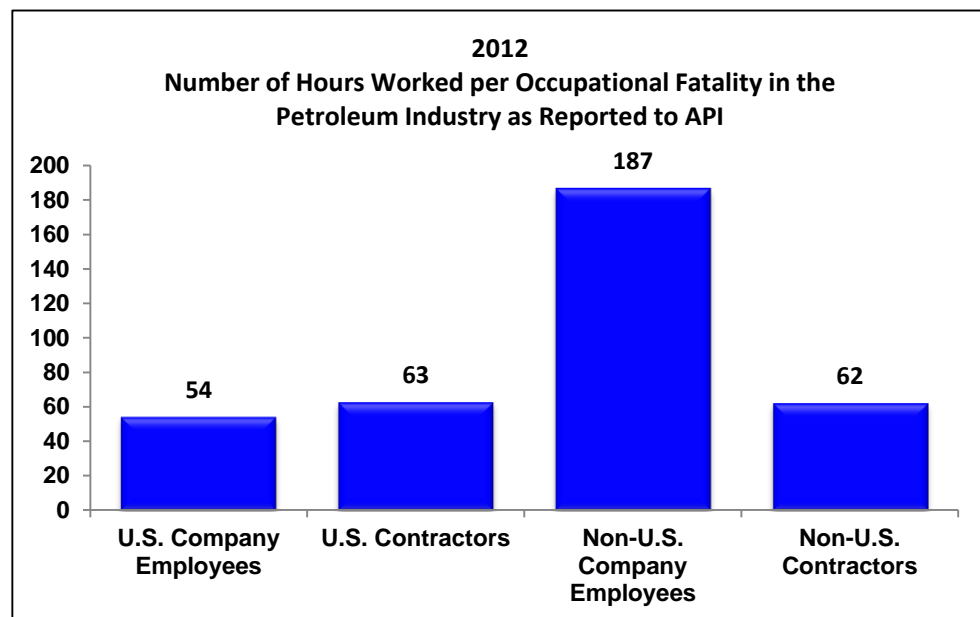
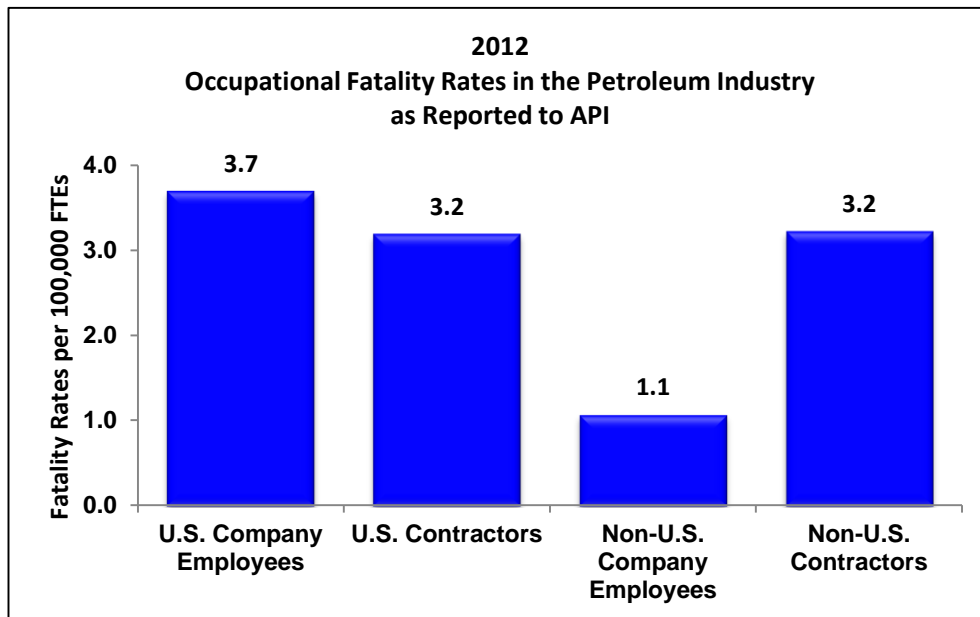
FATALITIES

2012 Summary of Fatal Injuries in the Petroleum Industry As Reported to the American Petroleum Institute

In 2012, participants reported seventeen fatal accidents for their U.S. operations. Seven fatalities occurred among company employees and ten among contract workers. For company employees, this is equivalent to one fatality per 54 million hours worked or 2.0 fatalities per 100,000 workers. Comparatively, for contract workers it is the equivalent of one fatality per 63 million hours worked or 1.1 fatalities per 100,000 contract workers.

Participants reported seventeen fatal accidents in their operations outside of the U.S in 2012. Two fatalities occurred among company employees; this is equivalent to one fatality per 187 million hours worked or 1.1 fatalities per 100,000 workers. Comparatively, fifteen fatalities occurred among contract workers. For contract workers, this is equivalent to one fatality per 62 million hours worked or 3.2 fatalities per 100,000 workers.

The following graphs compare fatalities between the four categories of workers.



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APPENDIX

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
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The Survey on Petroleum Industry Occupational Injuries, Illnesses, and Fatalities Guidelines and Definitions

The purpose of the Survey on Petroleum Industry Occupational Injuries, Illnesses, and Fatalities is to collect performance data on workplace injuries, illnesses, and fatalities for four types of workers: 1) U.S. employees, 2) Non-U.S. employees, 3) U.S. contractors, and 4) Non-U.S. contractors.

The data is maintained in an online database, the *Occupational Injuries, Illnesses, and Fatalities Reporting System*. Participating companies may logon to <http://oii.api.org> enter their data and view reports. In addition, the redesigned database gives companies the ability to create ad-hoc reports; create, edit and save report templates; and export reports.

There are four data entry forms, one each for entering U.S. employee data, non-U.S. employee data, U.S. contractor data, and non-U.S. contractor data.

The forms for each worker type contain both required and optional data entry fields.

- The required fields are “Total Hours Worked”, “Deaths”, “Days Away From Work”, and “Total OSHA Recordable Cases”.
- The optional fields are “Average Number of Employees”, “Job Transfer or Restriction”, “All Injury Cases”, and “All Illness Cases”.

Table of Contents

	Page
I. Guidelines and Data Elements Common to All Data Entry Forms	1
II. Reporting Occupational Injuries and Illnesses Data	3
Appendix A: Company Functions	
1. Summary of Function Categories	4
2. Offshore Data	5
3. Function Definitions	5
Appendix B: Contract Worker Exposure Hours	8

I. Guidelines and Data Elements Common to All Forms

Use Consistent Definitions

Reporters to API should be guided by the definitions provided here to the maximum extent possible. If a company cannot follow a definition exactly because of the particular way it keeps its records, its data are still useful and should still be submitted. ***Any deviations from API definitions should be noted in the comment section at the bottom of the data entry form.***

Report Incidents Corresponding Only to the People and Property Covered by Each Data Entry Form

Each company's submission should cover all of its petroleum operations. All of the incidents that meet the criteria in this document should be included in the data submitted to API. In general, the criteria for classifying and reporting injuries, illnesses, and fatalities to API should be consistent with those prescribed by the Occupational Safety and Health Administration (OSHA).

If a company's submission covers only selected domestic subsidiaries of a parent corporation, then it should include the incidents and other required data only for those subsidiaries.

Function Definitions Supersede NAICS Categories

The API function (sector) categories do not necessarily correspond to North American Industry Classification System (NAICS) codes. The function definitions are given in the next section, along with the NAICS sectors that are closest to them. *For API reporting purposes, the function categories as defined by API in Appendix A of this document should be used.*

The NAICS categories are defined in the North American Industry Classification System manual may be found at <http://www.census.gov/eos/www/naics/>.

Report Data Only for Petroleum Related Functions

Many petroleum companies have operations or subsidiaries dealing with solar energy, coal, shale, or mineral mining or other fields that are not in the mainstream of petroleum industry operations. Data on these activities may confuse the picture of the petroleum industry fire and safety record and should not be reported.

Report Employee Data for U.S. and Non-U.S. Operations Separately

Companies can report employee data for their U.S. operations, non-U.S. operations and their subsidiaries. This applies to all information submitted.

Report Contract Worker Data for U.S. and Non-U.S. Operations Separately

Companies can report contract worker data for their U.S. operations, non-U.S. operations and their subsidiaries. This applies to all information. Submit data for any contractor or individual that is under contract, subcontract, or purchase order who performs work or provides services for your company. While companies may choose to track data for all contractors, at this time API does **not** intend to capture data for the following:

- Joint ventures, where your company is not the operator.
- Offsite construction sites, fabrication shops, design and engineering firms unless your company has operational control.

- ### Joint Venture Operations

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II. Reporting Occupational Injuries and Illnesses Data

Field	Definition
Function	The function categories are defined in Appendix A of this document.
Total Hours Worked (Required field)	Actual hours worked are to be divided by 1000 and rounded to the nearest thousand hours. NOTE: Based on historical data, API has determined that 1900-2200 hours per employee per year is a reasonable range for the Hours Worked.
Death (Required field)	Work-related injury or illness that results in an employee's death.
Days Away From Work (Required field)	Nonfatal <u>cases</u> that result in the employee being away from work for at least one scheduled workday <u>after</u> the day of the injury or illness.
Job Transfer or Restriction (Optional field)	Nonfatal <u>cases</u> that involve restricted work or job transfer on any scheduled workday after the day of the injury or illness.
All Injury Cases (Optional field)	Work-related injuries that result in any of the following: death, days away from work, restricted work or transfer to another job, medical treatment beyond first aid, loss of consciousness, or a significant injury diagnosed by a physician or other licensed health care professional.
All Illness Cases (Optional field)	Work-related illnesses that result in any of the following: death, days away from work, restricted work or transfer to another job, medical treatment beyond first aid, loss of consciousness, or a significant illness diagnosed by a physician or other licensed health care professional.
Total OSHA Recordable Cases (Required field)	Work-related injuries and illnesses that result in any of the following: death, days away from work, restricted work or transfer to another job, medical treatment beyond first aid, loss of consciousness, or a significant injury or illness diagnosed by a physician or other licensed health professional.

Appendix A

Company Functions

1. Summary of Function Categories

A. UPSTREAM	
Offshore Exploration and Production	
• Exploration	
• Production	
• Drilling	
• Not separated	Provided for companies that cannot separate the subcategories
Onshore Exploration and Production	
• Exploration	
• Production	
• Drilling	
• Not separated	Provided for companies that cannot separate the subcategories
Gas Processing	
Upstream Support Services	
B. DOWNSTREAM	
Marketing-Wholesale	Includes all oil products marketing <u>except</u> for service station and credit card accounting operations.
Marketing-Retail	Restricted to service station and other retail store operations and employees.
Marketing-Not Separated	Provided for companies that cannot separate Marketing-Wholesale and Marketing-Retail data
Refining	
Lubricants/Specialties	
Downstream Support Services	
Trucking	
PIPELINE	
Pipeline-Liquid	Explicitly includes trucks operated by pipeline function.
Pipeline-Gas	
Pipeline-Not separated	Provided for companies that cannot separate Pipeline-Liquid and Pipeline-Gas data.
Trucking	
MARINE	
RESEARCH AND DEVELOPMENT	
SUPPORT SERVICES¹	Includes services not covered by one of the operating functions. Also includes credit card operations.

As a rule, (subject to OSHA recordkeeping guidelines), incidents involving employees should be reported by the function that pays the employee's salary, even if the employee was working with another function at the time of injury. Likewise, incidents involving property loss should be reported by the function that owns or leases the property, even if some other function was using it at the time of the incident. For joint ventures, the operating company reports on the basis of the full dollar value (100%) of the property loss.

¹ Except for credit card accounting operations, this category is for services not attached to one function. Administrative, engineering, General Services and Transportation personnel, and facilities that are an integral part of a function are included with that function. For example, engineers associated with exploration should be included in "exploration" and not "Support Services." Truck drivers or ferry skippers working in production should be reported with "Production." Administrative Assistants to refinery managers should be reported under "refining," etc.

2. Offshore Data

For jointly owned property, the operating company should report data. “Offshore” primarily refers to structures or platforms in the water that are used for exploration, production, or drilling. Incidents associated with platforms in the process of being constructed are included. For the sake of providing a clean definition, there has to be some piece of structure in place or being placed to count as offshore. Offshore also includes incidents involving transportation of people and equipment from a shore base to the facility, or from the facility to the shore. It includes accidents on the water, in the air, or in transferring from a vessel or aircraft to the offshore facility.

Offshore does **not** include sea travel on tankers from distant ports to an offshore facility (which should be reported in a “marine” category). Offshore does not include shore-side personnel in an offshore district or other land-based office (such as those in accounting, engineering or employee relations), unless the employee is assigned to work offshore fifty percent or more of his/her regularly assigned job. In addition, offshore does not include remote locations on shore, such as Alaskan pipeline facilities, which should be included with other onshore categories.

The principle that only injuries or illnesses “on duty” are counted remains the same for offshore workers as for onshore workers. Only “hours worked,” that is, spent on duty, are reported. However, different companies have different policies regarding when an offshore worker is on duty. There may be an 8-hour shift, or a longer shift such as 12 hours or a round-the-clock shift 24 hours a day. Whatever the shift length, the report should show the number of hours employees are on duty (on shift) and the corresponding number of injuries and illnesses that occurred on duty. For example, injuries should not be reported on a 24-hour basis and hours on a 12-hour basis, or else the injury rate will be exaggerated.

3. Function Definitions

Definitions are given below to remind users of the most common services that are part of each function.

- Exploration (Part of SIC NAICS 211111)

Geophysical, seismographic, and geological operations including their administrative and engineering aspects. These can be onshore or offshore, and include transportation of such personnel or equipment to and from a site.

- Production (Part of NAICS 211111)

Petroleum and natural gas producing operations including maintenance and servicing of production properties. These can include transportation to and from a site and can be offshore or onshore.

- Drilling (Part of NAICS 213111)

Hands-on operation of drilling rigs, including transportation of the equipment to and from the drill site, rigging up, drilling operations, and dismantling the equipment. Company employees working on contractor rigs, either onshore or offshore should be reported on Company Employees forms (Form 1 or Form 3). Contractor workers should be reported on the Contract Workers forms (Form 2 and Form 4).

- Gas Processing (NAICS 211112)

Processing of natural gas to produce liquid products such as ethane, liquefied petroleum gases, and natural gasoline.

- Marketing-Wholesale (NAICS 42471)

Petroleum bulk stations and terminals. Bulk distribution of petroleum products to retail or wholesale outlets, including truck and transport deliveries. Bulk distribution of tires, batteries, accessories and other products sold at service stations. Operations at product terminals or wholesaling establishments. Administrative, marketing, and sales activities that are integral to marketing-wholesale are included. Credit card operations or petrochemical marketing/sales/distribution are not included here; they are included in the Administrative, Engineering, and Other category.

- Marketing-Retail (NAICS 44711)

Primarily on-site retail service station and associated convenience store operations. This includes driveway sales, road service operations, car wash services, vehicle repair work, and sales of miscellaneous merchandise. Field or district personnel who supervise these stations should be reported under the Marketing-Wholesale category, as should other marketing administrative services.

- Marketing-Not-Separated (NAICS 42471 and 44711)

An alternative data entry line provided for companies that cannot provide separate data for the functions above.

- Refining (NAICS 324110)

Refining of crude oil to produce gasoline, kerosene, distillate fuel oils, residual fuel oils, lubricants, and other products from crude petroleum. Manufacturing and processing of petrochemicals where such processing is an integral part of refining operations and is under the same functional management is also included. However, where separable, petrochemical operations should be reported as part of that category.

- Lubricants/Specialties (NAICS 324191)

Establishments primarily engaged in blending, compounding, and re-refining lubricating oils and greases from purchased mineral, animal, and vegetable materials. Petroleum refineries engaged in the production of lubricating oils and greases are classified in refining (SIC 2911).

- Pipeline-Liquid (NAICS 486110 and 486910)

Gathering system and trunk line operations for crude oil. Transportation via pipeline of refined and semi-refined products. Pipeline station operations.

- Pipeline-Gas (NAICS 486210)

Gas gathering and trunk line operations of natural gas transmission lines up to the point of retail distribution.

- Pipeline-Not Separated (NAICS 486110 and 486910 and 486210)

An alternative data entry line provided for companies that cannot provide separate data for the functions above.

- Trucking

Operations associated with the use of trucks to transport crude oil between functions (a "pipeline function without a physical pipeline.") If the trucks are an integral part of another function, they should be covered with that function, not here.

- Marine-Tankers & Barges (Part of NAICS 4883)

Includes domestic and U.S. flag vessels that are owned, operated, and manned under petroleum company supervision. This may include vessels on inland waterway, coastal, or transoceanic trips, including international runs. If they fly the U.S. flag, they are considered part of U.S. operations. Includes exceptional circumstance of a “bare boat” charter where the vessel is chartered but the crew is provided by the petroleum company. Does not include “straight charter” vessels where both crew and vessel are hired for specific runs.

Personnel: In addition to seagoing employees, includes land-based marine operations people assigned to marine tanker operations. Some companies use personnel from national unions who are assigned to particular runs and are supervised and paid by the companies while on the run. Injuries and work hours for such personnel should be included. Marine employees’ injuries should be reported by the same OSHA definitions as those used for other employees to allow comparability with other functions.

- Research and Development (NAICS N/A)

Research laboratory and development operations, where they are a distinct managerial unit. R & D that is an integral part of other functions remains with those functions. Where “engineering” functions cannot be separated from R & D, both should be reported under R & D, rather than in the “Administrative, Engineering, and Other” category, which is more diverse.

- Support Services (NAICS N/A)²

Typical general support services not attached to one function, such as general building operations and maintenance, communications and correspondence services, motor pool, automotive repair, and aircraft operations. This category also includes other blue-collar support services, such as print shop and graphics operations, mailroom, and stationery/forms/office supplies.

Administrative and white-collar support functions such as legal, controller, medical, public affairs, employee relations, files/libraries, computer operations, etc., which are not included with other functions. This category also includes credit card operations and petrochemical marketing/sales/distribution, and engineering activities, such as mechanical, electrical, and civil, if not included with other functions.

² Except for credit card accounting operations, this category is provided to account for support functions and facilities not attached to one of the more specific categories). Support staff and facilities within a function are included with that function.

Appendix B

Contract Worker Exposure Hours

This section provides guidance on estimating contract worker exposure hours. This information is not a mandatory requirement for API reporting purposes but provides a basis for consistency in reporting contractor exposure hours. It is hoped that by providing this guidance, survey participants will be able to provide more consistent and accurate data to API that will enhance benchmarking comparisons and industry trend analysis. For the definition of a contract worker, see section I-2.

For hazardous liquid pipeline operators applying for the API pipeline safety award, please see the method at the end of this appendix.

Generally, two techniques are used to collect contract worker hours (exposure hours).

1. Activity Basis:

Recording Actual Hours Worked. This is the preferred method when such information is available through the company's human resources department or through invoices submitted to the company for payment.

Estimating Hours Worked. When actual hours for contractor workers are not available, annual reportable hours can be estimated from monthly or semi-monthly invoices and assuming a 2080-hour work year (8-hour workday X 52 weeks per year). For example:

Reportable Hours = Number of Contract Workers X 173.33 X number of months under contract.

2. Financial Basis:

When contract hours are not available, the following estimates of person-hours / \$1 million dollars of contract expenditures for different industry activities may be useful.

Industry Activity	Hours/\$ million contract expended
Geophysical	18,000
Drilling and Completions	9,375
Facilities and Pipeline Construction	6,750
Well Site Abandonment/Reclamation	13,500
Field Operations (*)	12,750

(*) Field Operations include all contract operating, electrical and mechanical maintenance, work overs, fluid transportation, inspections, and site maintenance activities.

For construction projects where the actual hours are not available, but the percentage breakdown of labor and materials per contract is known, the number of hours can be estimated by dividing the labor component by a weighted average labor rate of \$40.00/hr.

Where a total company activity budget is known (e.g. Geophysical, drilling and completions, etc.) the following labor-component percentages can be used to determine the dollar value.

Activity	% labor of Budget
Geophysical	52
Drilling and Completions	27
Facilities and Pipeline Construction	20
Well Site Abandonment/Reclamation	39
Field Operations (*)	37

(*) Field Operations include all contract operating, electrical and mechanical maintenance, work overs, fluid

transportation, inspections, and site maintenance activities.

The result can be divided by a weighted average labor rate of \$30.00/hr. to determine the total number of contractor hours attributable to that activity.

Example: Company “A” has a geophysical budget of \$6 million for the reporting year. The estimated contractor worker-hours for the geophysical project would be:

$$(0.52 \times \$6,000,000) = \$3,120,000 \text{ (labor cost)} / \$30.00 \text{ (labor rate)} = 104,000 \text{ hours}$$

Contractor Hour Estimation Method for Hazardous Liquid Pipeline Operators applying for the API Pipeline Safety Award

Recording contractor hours is mandatory for participation in the API Pipeline Awards program. The Pipeline Safety Managers Work Group developed and proposed the method below for estimating contractor hours specifically for pipeline operators. This method was approved by the API Pipeline Committee on Environment, Health, and Safety, the committee responsible for managing and maintaining the award program. If contractor hours are not directly tracked, this estimation tool provides a basis for consistency in reporting contractor hours. Please see the Frequently Asked Questions and Award Description letter posted on API’s website at <http://www.api.org/aboutoilgas/sectors/pipeline/index.cfm>. Scroll down to the API Pipeline Conference and Award Program).

Contractor hours may be estimated using award period (annual) contractor expenditures and the following assumptions:

- Contract labor is 50% of total contractor dollars spent
- Contractor hours are equal to contractor labor expense divided by \$40/hr.

Or simply divide total contractor spend by 80

Example:

- Total contractor spend for the year = \$6,000,000
 - $6,000,000 / 80 = 75,000 \text{ hours.}$

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