

# 2009

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

Covering Petroleum Operations of Reporting Companies

API Publication 2388 April 2010



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## 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 2009 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 (<a href="http://oii.api.org">http://oii.api.org</a>). Access to this report is limited to companies that gave API permission to share their 2009 data.

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 <a href="http://oii.api.org/">http://oii.api.org/</a>*. 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".

The Occupational Injuries, Illnesses, and Fatalities Reporting System generates two broad categories of online reports for each type of worker—Full Benchmarking and Limited Benchmarking. Companies submitting data for both required and optional fields as well as giving API permission to share their data with other participants have access to Full Benchmark reports. Companies that only submit data for required fields only have access to Limited Benchmarking reports.

#### SUMMARY

#### **U.S. Operations: Company Employees**

2009 data pertaining to U.S. occupational injuries, illnesses and fatalities for an employer's own employees were submitted to the American Petroleum Institute (API) by forty-six oil and natural gas companies and their subsidiaries, employing persons with a total work experience of 294 million hours. In 2008, forty-five companies reported 369 million hours.

In 2009, the *Total OSHA Recordable Case Incidence Rate* reported was 0.58, compared to 0.68 for 2008. 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 2009 was 0.15 per 200,000 hours worked—or one case for every 667 employees, compared to 0.17 in 2008—or one case for every 588 employees.

Since 2000, the reported *Total OSHA Recordable Case Incidence Rate* and *Death plus Days Away Incidence Rate* have improved an average of 9.6 and 10.2 percent per year, respectively (see the figure below).

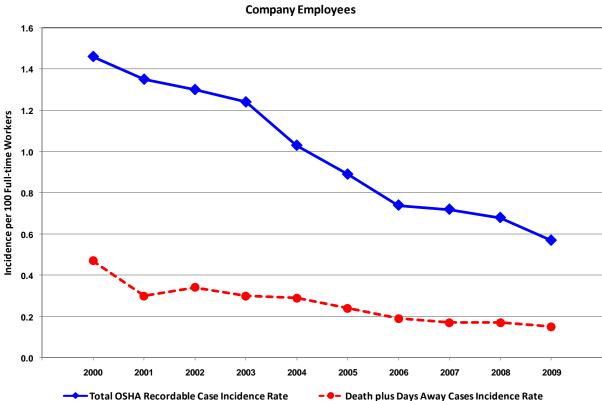


Figure 1

Reported U.S. Occupational Injuries, Illnesses, and Fatalities in the Petroleum Industry

Company Employees

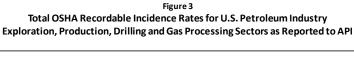
Significant differences exist among companies regarding return-to-work policies and practices. Therefore, use of the *Death plus Days Away Incidence Rates* alone to judge and compare company safety performance is not recommended.

The total OSHA recordable incidence rate as reported to API declined 60.3 percent during the past ten years. The following graphs show the ten-year trend for selected U.S. petroleum industry sectors.

7.00 6.00 5.00 Incidence per 100 Full-time Workers 4.00 BLS Petroleum Industry Incidence Rates Declined 26.3% 3.00 2.00 Petroleum Industry Incidence Rates Reported to API Declined 60.3% 1.00 0.00 2000 2001 2002 2003 2004 2005 2006 2007 2008 2009

Figure 2
Total OSHA Recordable Incidence Rates in the United States\*

<sup>\*</sup>BLS will release 2009 injuries and illnesses data in October 2010.



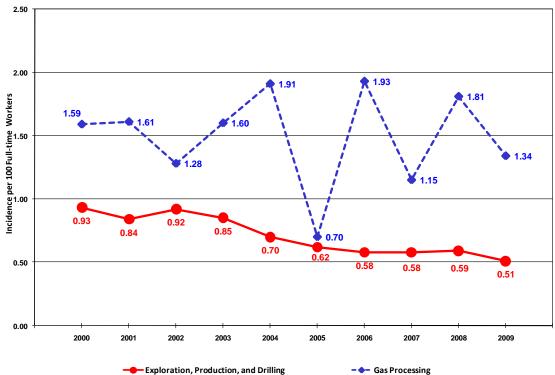


Figure 4
Total OSHA Recordable Incidence Rates for U.S. Petroleum Industry
Marketing and Refining Sectors as Reported to API

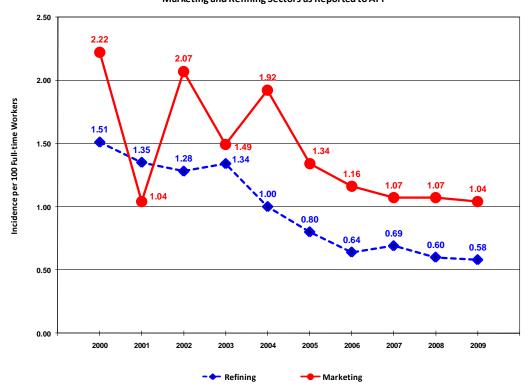
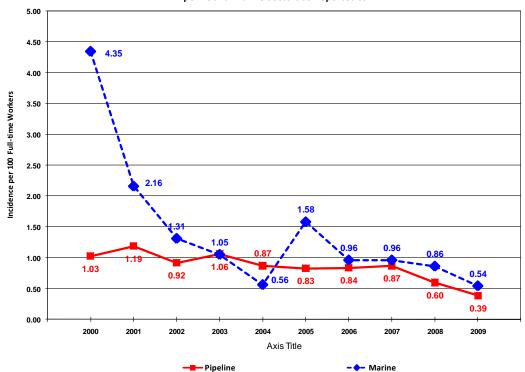


Figure 5
Total OSHA Recordable Incidence Rates for U.S. Petroleum Industry
Pipeline and Marine Sectors as Reported to API



## **U.S. Operations: Contract Workers**

In 2009, thirty-nine oil and natural gas companies and their subsidiaries submitted contract worker data for their U.S. operations. These workers provided 318 million hours of service to these companies. The *Total OSHA Recordable Case Incidence Rate* reported for these contract workers was 0.53. The *Death plus Days Away Incidence Rate* reported for this group of workers was 0.09 per 200,000 hours worked—or one case for every 1,111 workers.

#### Non-U.S. Operations: Company Employees

Ten companies reported non-U.S. employee data. During 2009, these employees had a total work experience of 233 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.

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

Nine companies reported data for non-U.S. contract workers. In 2009, this category of worker performed a total of 571 million hours in their non-U.S. operations. The *Total OSHA Recordable Case Incidence Rate* reported for these contract workers was 0.31. The *Death plus Days Away Incidence Rate* reported for this group of workers was 0.08 per 200,000 hours worked—or one case for every 1,250 workers.

# Limited Benchmarking: All Sharing Companies U.S. Operations: Company Employees for 2009

|  |                                   | OSHA Recordable Cases Classified by Severity |                                    |                                | Inci   | dence Rates*                               |                                 |
|--|-----------------------------------|--|------------------------------------|--------------------------------|--|--|---------------------------------|
| Function   | Total Hours Worked<br>(Thousands) | Cases of<br>Death                            | Cases of Days<br>Away From<br>Work | Total OSHA<br>Recordable Cases | Incidence Rate Total<br>OSHA Recordable<br>Cases | Death plus Days<br>Away From Work<br>Cases | Days Away<br>From Work<br>Cases |
| Total U.S. Operations: Company Employees 2009  |                                   | 5  | 214                                | 847                            | .58  | .15  | .15                             |
| A . UPSTREAM   | 234,233                           | J .  | 214                                | 047                            | .50  | .15  | .13                             |
| Offshore Expl & Prodn & Drilling <sup>1</sup>  | 7,420                             | 0  | 4                                  | 16                             | .43  | .11  | .11                             |
| Onshore Expl & Prodn & Drilling <sup>1</sup>   | 33,547                            | 2  | 17                                 | 89                             | .53  | .11  | .10                             |
| Expl & Prodn & Drilling Subtotal   | ,                                 | 2  | 21                                 | 105                            | .51  | .11  | .10                             |
| Gas Processing   | 1,194                             | 0  | 2                                  | 8                              | 1.34   | .34  | .34                             |
| Upstream Support Services  | 10,129                            | 0  | 0                                  | 10                             | .20  | 0.00                                       | 0.00                            |
| Upstream Subtotal  | 52,290                            | 2  | 23                                 | 123                            | .47  | .10  | .09                             |
| B . DOWNSTREAM   |                                   |  |                                    |                                |  |  |                                 |
| <u>Marketing-Wholesale</u>   | 10,366                            | 0  | 12                                 | 29                             | .56  | .23  | .23                             |
| <u>Marketing-Retail</u>  | 45,211                            | 0  | 79                                 | 296                            | 1.31   | .35  | .35                             |
| Marketing-Not separated <sup>2</sup>   | 15,907                            | 1  | 9                                  | 46                             | .58  | .13  | .11                             |
| Marketing Subtotal   | , -                               | 1  | 100                                | 371                            | 1.04   | .28  | .28                             |
| Refining 1   | 62,580                            | 1  | 43                                 | 183                            | .58  | .14  | .14                             |
| <u>Lubricants/Specialties</u>  | 10,241                            | 0  | 2                                  | 9                              | .18  | .04  | .04                             |
| Downstream Support Services  | 15,129                            | 0  | 18                                 | 35                             | .46  | .24  | .24                             |
| <u>Downstream Subtotal</u>   | 159,434                           | 2  | 163                                | 598                            | .75  | .21  | .20                             |
| C . PIPELINE   |                                   |  |                                    |                                |  |  |                                 |
| Pipeline-Liquid  | 13,995                            | 0  | 13                                 | 46                             | .66  | .19  | .19                             |
| Pipeline-Gas   | 24                                | 0  | 0                                  | 0                              | 0.00   | 0.00                                       | 0.00                            |
| Pipeline-Not separated <sup>4</sup>  | 11,816                            | 0  | 1                                  | 5                              | .08  | .02  | .02                             |
| Pipeline Subtotal  |                                   | 0  | 14                                 | 51                             | .39  | .11  | .11                             |
| MARINE DESIGNATION OF THE PROPERTY OF THE PROP | 3,711                             | 1  | 3                                  | 10                             | .54  | .22  | .16                             |
| RESEARCH & DEV   | 9,166                             | 0  | 3                                  | 15                             | .33  | .07  | .07                             |
| SUPPORT SERVICES   | 43,819                            | 0  | 8                                  | 50                             | .23  | .04  | .04                             |

<sup>1</sup> Include Power Generation personnel that support this function.

<sup>2</sup> Marketing data unable to be separated into Wholesale or Retail functions.

<sup>3</sup> Subsidiary data is not included in this table.

<sup>4</sup> Pipeline data unable to be separated into Liquid or Gas functions.

<sup>5</sup> Not covered under Operating Segments.

<sup>\*</sup>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)

# Limited Benchmarking: All Sharing Companies U.S. Operations:Contract Workers for 2009

|   |                                   | OSHA Recordable Cases<br>Classified by Severity |                                    |            |  |  |                                 |  | Inci | dence Rates* |  |
|---|-----------------------------------|---|------------------------------------|------------|--|--|---------------------------------|--|------|--------------|--|
| Function                                      | Total Hours Worked<br>(Thousands) | Cases of<br>Death                               | Cases of Days<br>Away From<br>Work | Total OSHA | Incidence Rate Total OSHA Recordable Cases | Death plus Days<br>Away From Work<br>Cases | Days Away<br>From Work<br>Cases |  |      |              |  |
| Total U.S. Operations: Contract Workers 2009  |                                   | 7   | 129                                | 844        | .53  | .09  | .08                             |  |      |              |  |
| A . UPSTREAM                                  | 310,103                           | ,   | 123                                | 011        | .55  | .03  | .00                             |  |      |              |  |
| Offshore Expl & Prodn & Drilling <sup>1</sup> | 19,390                            | 1   | 5                                  | 55         | .57  | .06  | .05                             |  |      |              |  |
| Onshore Expl & Prodn & Drilling <sup>1</sup>  | 96,730                            | 2   | 61                                 | 327        | .68  | .13  | .13                             |  |      |              |  |
| Expl & Prodn & Drilling Subtotal              | ,                                 | 3   | 66                                 | 382        | .66  | .12  | .11                             |  |      |              |  |
| Gas Processing                                | 1,984                             | 0   | 2                                  | 14         | 1.41                                       | .20  | .20                             |  |      |              |  |
| Upstream Support Services                     | 1,134                             | 0   | 0                                  | 2          | .35  | 0.00                                       | 0.00                            |  |      |              |  |
| <u>Upstream Subtotal</u>                      | 119,238                           | 3   | 68                                 | 398        | .67  | .12  | .11                             |  |      |              |  |
| B . DOWNSTREAM                                |                                   |   |                                    |            |  |  |                                 |  |      |              |  |
| <u>Marketing-Wholesale</u>                    | 4,715                             | 0   | 1                                  | 11         | .47  | .04  | .04                             |  |      |              |  |
| Marketing-Retail                              | 4,310                             | 0   | 3                                  | 6          | .28  | .14  | .14                             |  |      |              |  |
| Marketing-Not separated <sup>2</sup>          | 2,768                             | 0   | 0                                  | 11         | .79  | 0.00                                       | 0.00                            |  |      |              |  |
| Marketing Subtotal                            | 11,793                            | 0   | 4                                  | 28         | .47  | .07  | .07                             |  |      |              |  |
| Refining 1                                    | 136,508                           | 1   | 33                                 | 276        | .40  | .05  | .05                             |  |      |              |  |
| <u>Lubricants/Specialties</u>                 | 4,343                             | 0   | 1                                  | 10         | .46  | .05  | .05                             |  |      |              |  |
| Downstream Support Services                   | 1,568                             | 0   | 0                                  | 2          | .26  | 0.00                                       | 0.00                            |  |      |              |  |
| <u>Downstream Subtotal</u>                    | 154,212                           | 1   | 38                                 | 316        | .41  | .05  | .05                             |  |      |              |  |
| C . PIPELINE                                  |                                   |   |                                    |            |  |  |                                 |  |      |              |  |
| Pipeline-Liquid                               | 11,962                            | 1   | 7                                  | 47         | .79  | .13  | .12                             |  |      |              |  |
| <u>Pipeline-Gas</u>                           | 2                                 | 0   | 0                                  | 0          | 0.00                                       | 0.00                                       | 0.00                            |  |      |              |  |
| Pipeline-Not separated 4                      | 8,724                             | 1   | 4                                  | 29         | .66  | .11  | .09                             |  |      |              |  |
| <u>Pipeline Subtotal</u>                      | - 1                               | 2   | 11                                 | 76         | .73  | .13  | .11                             |  |      |              |  |
| <u>MARINE</u>                                 | 269                               | 0   | 0                                  | 0          | 0.00                                       | 0.00                                       | 0.00                            |  |      |              |  |
| RESEARCH & DEV                                | 1,269                             | 0   | 1                                  | 3          | .47  | .16  | .16                             |  |      |              |  |
| SUPPORT SERVICES                              | 22,787                            | 1   | 11                                 | 51         | .45  | .11  | .10                             |  |      |              |  |

<sup>1</sup> Include Power Generation personnel that support this function.

<sup>2</sup> Marketing data unable to be separated into Wholesale or Retail functions.

<sup>3</sup> Subsidiary data is not included in this table.

<sup>4</sup> Pipeline data unable to be separated into Liquid or Gas functions.

<sup>5</sup> Not covered under Operating Segments.

<sup>\*</sup>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)

# Limited Benchmarking: All Sharing Companies Non-U.S. Operations: Company Employees for 2009

|   |                       | OSHA Recordable<br>Cases<br>Classified by Severity |                            | Cases                    |       |                                   | Inci                   | dence Rates* |  |
|---|-----------------------|--|----------------------------|--------------------------|-------|-----------------------------------|------------------------|--------------|--|
|   | Total Hours<br>Worked |  | Cases of Days<br>Away From | Total OSHA<br>Recordable |       | Death plus Days<br>Away From Work | Days Away<br>From Work |              |  |
| Function  | (Thousands)           | Death  | Work                       | Cases                    | Cases | Cases                             | Cases                  |              |  |
| Total Non-U.S. Operations: Company Employees 2009 | 232,926               | 1  | 56                         | 247                      | .21   | .05                               | .05                    |              |  |
| A . UPSTREAM                                      |                       |  |                            |                          |       |                                   |                        |              |  |
| Offshore Expl & Prodn & Drilling 1                | 38,085                | 0  | 5                          | 40                       | .21   | .03                               | .03                    |              |  |
| Onshore Expl & Prodn & Drilling 1                 | 58,592                | 0  | 25                         | 46                       | .16   | .09                               | .09                    |              |  |
| Expl & Prodn & Drilling Subtotal                  | 96,677                | 0  | 30                         | 86                       | .18   | .06                               | .06                    |              |  |
| Gas Processing                                    | 1,990                 | 0  | 2                          | 6                        | .60   | .20                               | .20                    |              |  |
| <u>Upstream Support Services</u>                  | 1,956                 | 0  | 0                          | 1                        | .10   | 0.00                              | 0.00                   |              |  |
| <u>Upstream Subtotal</u>                          | 100,623               | 0  | 32                         | 93                       | .18   | .06                               | .06                    |              |  |
| B . DOWNSTREAM                                    |                       |  |                            |                          |       |                                   |                        |              |  |
| Marketing-Wholesale                               | 9,005                 | 0  | 3                          | 11                       | .24   | .07                               | .07                    |              |  |
| Marketing-Retail                                  | 2,352                 | 0  | 1                          | 1                        | .09   | .09                               | .09                    |              |  |
| Marketing-Not separated <sup>2</sup>              | 55,513                | 1  | 6                          | 68                       | .24   | .03                               | .02                    |              |  |
| Marketing Subtotal                                | 66,870                | 1  | 10                         | 80                       | .24   | .03                               | .03                    |              |  |
| Refining 1  | 25,110                | 0  | 8                          | 43                       | .34   | .06                               | .06                    |              |  |
| <u>Lubricants/Specialties</u>                     | 7,824                 | 0  | 0                          | 0                        | 0.00  | 0.00                              | 0.00                   |              |  |
| Downstream Support Services                       | 406                   | 0  | 0                          | 0                        | 0.00  | 0.00                              | 0.00                   |              |  |
| <u>Downstream Subtotal</u>                        | 100,210               | 1  | 18                         | 123                      | .25   | .04                               | .04                    |              |  |
| C.PIPELINE  |                       |  |                            |                          |       |                                   |                        |              |  |
| Pipeline-Liquid                                   | 19                    | 0  | 0                          | 0                        | 0.00  | 0.00                              | 0.00                   |              |  |
| <u>Pipeline-Gas</u>                               | 0                     | 0  | 0                          | 0                        | 0.00  | 0.00                              | 0.00                   |              |  |
| Pipeline-Not separated <sup>4</sup>               | 136                   | 0  | 0                          | 0                        | 0.00  | 0.00                              | 0.00                   |              |  |
| Pipeline Subtotal                                 | 155                   | 0  | 0                          | 0                        | 0.00  | 0.00                              | 0.00                   |              |  |
| MARINE  | 4,963                 | 0  | 1                          | 8                        | .32   | .04                               | .04                    |              |  |
| RESEARCH & DEV                                    | 668                   | 0  | 0                          | 0                        | 0.00  | 0.00                              | 0.00                   |              |  |
| SUPPORT SERVICES                                  | 26,307                | 0  | 5                          | 23                       | .17   | .04                               | .04                    |              |  |

<sup>1</sup> Include Power Generation personnel that support this function.

<sup>2</sup> Marketing data unable to be separated into Wholesale or Retail functions.

<sup>3</sup> Subsidiary data is not included in this table.

<sup>4</sup> Pipeline data unable to be separated into Liquid or Gas functions.

<sup>5</sup> Not covered under Operating Segments.

<sup>\*</sup>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)

# Limited Benchmarking: All Sharing Companies Non-U.S. Operations: Contract Workers for 2009

|  |                    | OSHA Recordable Cases<br>Classified by Severity |               |                  | Incidence Rates*     |                 |           |  |
|--|--------------------|---|---------------|------------------|----------------------|-----------------|-----------|--|
|  |                    |   | Cases of Days |                  | Incidence Rate Total | Death plus Days | Days Away |  |
| Function   | Total Hours Worked |   |               | Total OSHA       | OSHA Recordable      | Away From Work  | From Work |  |
|  | (Thousands)        | Death   | Work          | Recordable Cases |                      | Cases           | Cases     |  |
| Total Non-U.S. Operations: Contract Workers 2009 | 571,178            | 11  | 204           | 885              | .31                  | .08             | .07       |  |
| A . UPSTREAM                                     |                    |   |               |                  |                      |                 |           |  |
| Offshore Expl & Prodn & Drilling 1               | 184,411            | 2   | 49            | 329              | .36                  | .06             | .05       |  |
| Onshore Expl & Prodn & Drilling 1                | 256,755            | 6   | 103           | 354              | .28                  | .08             | .08       |  |
| Expl & Prodn & Drilling Subtotal                 | 441,166            | 8   | 152           | 683              | .31                  | .07             | .07       |  |
| Gas Processing                                   | 2,509              | 0   | 2             | 11               | .88                  | .16             | .16       |  |
| Upstream Support Services                        | 881                | 0   | 1             | 1                | .23                  | .23             | .23       |  |
| <u>Upstream Subtotal</u>                         | 444,556            | 8   | 155           | 695              | .31                  | .07             | .07       |  |
| B . DOWNSTREAM                                   |                    |   |               |                  |                      |                 |           |  |
| Marketing-Wholesale                              | 14,513             | 2   | 10            | 27               | .37                  | .17             | .14       |  |
| Marketing-Retail                                 | 1,441              | 0   | 0             | 0                | 0.00                 | 0.00            | 0.00      |  |
| Marketing-Not separated <sup>2</sup>             | 45,485             | 0   | 19            | 63               | .28                  | .08             | .08       |  |
| Marketing Subtotal                               | 61,439             | 2   | 29            | 90               | .29                  | .10             | .09       |  |
| Refining <sup>1</sup>                            | 41,824             | 1   | 14            | 75               | .36                  | .07             | .07       |  |
| <u>Lubricants/Specialties</u>                    | 5,258              | 0   | 1             | 5                | .19                  | .04             | .04       |  |
| Downstream Support Services                      | 50                 | 0   | 0             | 0                | 0.00                 | 0.00            | 0.00      |  |
| Downstream Subtotal                              | 108,571            | 3   | 44            | 170              | .31                  | .09             | .08       |  |
| C . PIPELINE                                     |                    |   |               |                  |                      |                 |           |  |
| Pipeline-Liquid                                  | 19                 | 0   | 0             | 0                | 0.00                 | 0.00            | 0.00      |  |
| Pipeline-Gas                                     | 0                  | 0   | 0             | 0                | 0.00                 | 0.00            | 0.00      |  |
| Pipeline-Not separated <sup>4</sup>              | 67                 | 0   | 0             | 0                | 0.00                 | 0.00            | 0.00      |  |
| Pipeline Subtotal                                | 86                 | 0   | 0             | 0                | 0.00                 | 0.00            | 0.00      |  |
| MARINE .   | 1,259              | 0   | 0             | 0                | 0.00                 | 0.00            | 0.00      |  |
| RESEARCH & DEV                                   | 67                 | 0   | 0             | 0                | 0.00                 | 0.00            | 0.00      |  |
| SUPPORT SERVICES                                 | 16,639             | 0   | 5             | 20               | .24                  | .06             | .06       |  |

<sup>1</sup> Include Power Generation personnel that support this function.

<sup>2</sup> Marketing data unable to be separated into Wholesale or Retail functions.

<sup>3</sup> Subsidiary data is not included in this table.

<sup>4</sup> Pipeline data unable to be separated into Liquid or Gas functions.

<sup>5</sup> Not covered under Operating Segments.

<sup>\*</sup>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)

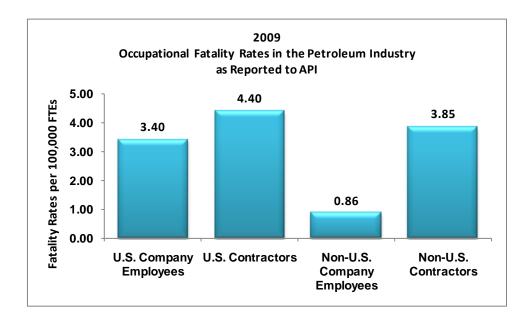
Days Away From Work Cases Incidence Rate = Days Away From Work Cases multiplied by 200 divided by the hours worked (in thousands)

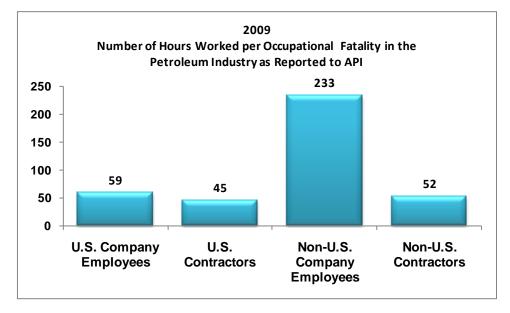
# 2009 Summary of Fatal Injuries in the Petroleum Industry As Reported to the American Petroleum Institute

In 2009, participants reported twelve fatal accidents for their U.S. operations. Five fatalities occurred among company employees and seven among contract workers. For company employees, this is equivalent to one fatality per 294 million hours worked or 3.4 fatalities per 100,000 workers. Comparatively, for contract workers it is the equivalent of one fatality per 44 million hours worked or 4.4 fatalities per 100,000 contract workers.

Participants reported twelve fatal accidents in their operations outside of the U.S. During 2009, one company employee and eleven contractors died providing service in operations outside the U.S. For company employees, this is equivalent to one fatality per 233 million hours worked or 0.85 fatalities per 100,000 employees. Comparatively, contractors experienced one fatality per 571 million hours worked or 3.85 fatalities per 100,000 workers.

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









| Company Name:    |   |  |
|------------------|---|--|
| Contact Person:  |   |  |
| Address:         |   |  |
|                  |   |  |
| Telephone:       | Fax:  |  |
| E-mail:          |   |  |
| ☐ This form also | includes data for the following subsidiaries and/or affiliates: |  |
|                  |   |  |
|                  |   |  |
|                  |   |  |
|                  |   |  |

Please return your completed survey by <u>February 25, 2010</u> to:

American Petroleum Institute Statistics - OII 1220 L Street, NW, Washington, DC 20005-4070 Attn: Jeff Obermiller Tel: (202) 682-8508 Fax: (202) 962-4730

E-mail: obermiller@api.org

# **Survey on Petroleum Industry** Occupational Injuries, Illnesses and Fatalities for the Year 2009 Data Entry Form 1 -- U.S. Operations: Company Employees

Company: Respondent Email:

☐ **I do not wish to share my individual company data**. Please note, if you check this box you <u>will</u> <u>not</u> have access to the Full Benchmarking Reports or other companies' Individual Reports for this type of worker. You will <u>only</u> have access to <u>your</u> report and the Limited Benchmarking Reports.

|   |  |                                       | 1             |                  |                                |                      |  |  |
|---|--|---------------------------------------|---------------|------------------|--------------------------------|----------------------|--|--|
|   |  |                                       | Clas          | ssify Cases by   | y Severity                     | Enter Ty             | pes of Cases                                   |  |
| For each Function enter the sum of cases for both Severity and Type. Each |  | Each case should be entered only once |               |                  | Choose eithe                   | er injury or illness |  |  |
| case requires an entry both for Severity ar                               | nd Type  |                                       | in the column | n representing t | the greatest severity          |                      | uld be entered only<br>imn as Injury or        |  |
|   |  |                                       |               |                  |                                |                      | llness   |  |
|   | Average<br>Number of                             | Total Hours                           |               | Case Sever       | rity                           | Injury               | Illness  | Total OSHA   |
|   | Employees  | Worked                                |               | Days Away        | Job Transfer or<br>Restriction | All Injury<br>Cases  | All Illness<br>Cases                           | Recordable<br>Cases                                      |
| Function  | (Optional)                                       | (Thousands)                           | Death         | From Work        | (Optional)                     | (Optional)           | (Optional)                                     | Cases  |
| This is where you can find the information for t                          | he column above on the                           | he OSHA 300                           | Column (G)    | Column (H)       | Column (I)                     | Column (M1)          | Sum of Columns<br>(M2) + (M3) +<br>(M4) + (M5) | Sum of Columns<br>(M1) + (M2) +<br>(M3) + (M4) +<br>(M5) |
| A. UPSTREAM   | 1////  | /////                                 | /////         | ////             |                                | (////                | /////  | /////  |
| Offshore Expl & Prodn and Drilling <sup>1</sup>                           |  |                                       |               |                  |                                |                      |  |  |
| 2. Onshore Expl & Prodn and Drilling <sup>1</sup>                         |  |                                       |               |                  |                                |                      |  |  |
| Gas Processing  |  |                                       |               |                  |                                |                      |  |  |
| Upstream Support Services   |  |                                       |               |                  |                                |                      |  |  |
| B. DOWNSTREAM   | <u> </u>   | <u>////</u>                           | <u>////</u>   | <u>////</u>      | <u>//////</u>                  | <u> </u>             | <u>/////</u>                                   | <u>/////</u>   |
| Marketing-Wholesale   |  |                                       |               |                  |                                |                      |  |  |
| Marketing-Retail  |  |                                       |               |                  |                                |                      |  |  |
| Marketing-Not separated <sup>2</sup> 1                                    |  |                                       |               |                  |                                |                      |  |  |
| 4. Refining <sup>1</sup>  |  |                                       |               |                  |                                |                      |  |  |
| Lubricants/Specialties  |  |                                       |               |                  |                                |                      |  |  |
| Downstream Support Services     PIPELINE                                  | 111111   | ////                                  | ,,,,,         | ////             | //////                         | 11111                | //////   | /////  |
| Pipeline-Liquid   | <del>                                     </del> |                                       |               |                  |                                |                      |  |  |
| 2. Pipeline-Gas   |  |                                       |               |                  |                                |                      |  |  |
| 3. Pipeline-Not separated <sup>3</sup>                                    |  |                                       |               |                  |                                |                      |  |  |
| D. MARINE   |  |                                       |               |                  |                                |                      |  |  |
| E. RESEARCH & DEVELOPMENT   |  |                                       |               |                  |                                |                      |  |  |
| F. SUPPORT SERVICES <sup>4</sup>  |  |                                       |               |                  |                                |                      |  |  |

<sup>&</sup>lt;sup>1</sup> Include Power Generation personnel that support this function.

#### SHIFT/FYPOSURE DATA (Ontional):

| SHIF I/EXPOSURE DATA (Optional):           |                           |        |  |  |  |  |  |
|--|---------------------------|--------|--|--|--|--|--|
|  | Offshore E&P and Drilling | Marine |  |  |  |  |  |
| Hours worked or exposure per while on duty |                           |        |  |  |  |  |  |
| Number of days on per duty cycle           |                           |        |  |  |  |  |  |
| Number of days off per duty cycle          |                           |        |  |  |  |  |  |

| Comments: |  |
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<sup>&</sup>lt;sup>2</sup> Marketing data unable to be separated into Wholesale or Retail functions.

<sup>&</sup>lt;sup>3</sup> Pipeline data unable to be separated into Liquid or Gas functions.

<sup>&</sup>lt;sup>4</sup> Not covered under Operating Segments.

#### **Survey on Petroleum Industry**

Occupational Injuries, Illnesses and Fatalities for the Year 2009

| Company:          |  |
|-------------------|--|
| Respondent Email: |  |

Data Entry Form 2 -- U.S. Operations: Contract Workers

☐ I do not wish to share my individual company data. Please note, if you check this box you will not have access to the Full Benchmarking Reports or other companies' Individual Reports for this type of worker. You will only have access to your report and the Limited Benchmarking Reports.

| For each Function enter the sum of cases for case requires an entry both for Severity and |                         |              | Coso Soverity |                        | Total Hours  Each case should be entered only once in the column representing the greatest severity  Case Severity  Choose either injury or illness  Each case should be entered only in one Column as Injury or Illness  Injury Illness |                                   | or injury or illness<br>ald be entered only<br>mn as Injury or<br>Illness | Total OSHA<br>Recordable                                 |
|---|-------------------------|--------------|---------------|------------------------|--|-----------------------------------|---|--|
| Function  | Employees<br>(Optional) | (Thousands)  | Death         | Days Away<br>From Work | Restriction<br>(Optional)  | All Injury<br>Cases<br>(Optional) | Cases<br>(Optional)   | Cases  |
| This is where you can find the information for the Form                                   | he column above on      | the OSHA 300 | Column (G)    | Column (H)             | Column (I)   | Column (M1)                       | Sum of Columns<br>(M2) + (M3) +<br>(M4) + (M5)                            | Sum of Columns<br>(M1) + (M2) +<br>(M3) + (M4) +<br>(M5) |
| A. UPSTREAM   | /////                   | <u>////</u>  | ////          | ////                   |  | <u> </u>                          |   |  |
| 1. Offshore Expl & Prodn and Drilling <sup>1</sup>  |                         |              |               |                        |  |                                   |   |  |
| 2. Onshore Expl & Prodn and Drilling <sup>1</sup>   |                         |              |               |                        |  |                                   |   |  |
| 3. Gas Processing   |                         |              |               |                        |  |                                   |   |  |
| Upstream Support Services   |                         |              |               |                        |  |                                   |   |  |
| B. DOWNSTREAM   | /////                   | /////        | /////         | <u>////</u>            |  | /////                             |   |  |
| Marketing-Wholesale   |                         |              |               |                        |  |                                   |   |  |
| Marketing-Retail  |                         |              |               |                        |  |                                   |   |  |
| 3. Marketing-Not separated <sup>2</sup>   |                         |              |               |                        |  |                                   |   |  |
| 4. Refining <sup>1</sup>  |                         |              |               |                        |  |                                   |   |  |
| 5. Lubricants/Specialties   |                         |              |               |                        |  |                                   |   |  |
| Downstream Support Services   |                         |              |               |                        |  |                                   |   |  |
| C. PIPELINE   |                         | ////         |               |                        |  |                                   | /////   | /////  |
| Pipeline-Liquid   |                         |              |               |                        |  |                                   |   |  |
| 2. Pipeline-Gas   |                         |              |               |                        |  |                                   |   |  |
| 3. Pipeline-Not separated <sup>3</sup>  |                         |              |               |                        |  |                                   |   |  |
| D. MARINE   |                         |              |               |                        |  |                                   |   |  |
| E. RESEARCH & DEVELOPMENT   |                         |              |               |                        |  |                                   |   |  |
| F. SUPPORT SERVICES <sup>4</sup>  |                         |              |               |                        |  |                                   |   |  |

<sup>&</sup>lt;sup>1</sup> Include Power Generation personnel that support this function.

**Comments:** 

#### SHIFT/EXPOSURE DATA (Optional):

| SHIF I/EXPOSURE DATA (Optional):           |                           |        |  |  |  |  |  |
|--|---------------------------|--------|--|--|--|--|--|
|  | Offshore E&P and Drilling | Marine |  |  |  |  |  |
| Hours worked or exposure per while on duty |                           |        |  |  |  |  |  |
| Number of days on per duty cycle           |                           |        |  |  |  |  |  |
| Number of days off per duty cycle          |                           |        |  |  |  |  |  |

 $<sup>^{\</sup>rm 2}$  Marketing data unable to be separated into Wholesale or Retail functions.

<sup>&</sup>lt;sup>3</sup> Pipeline data unable to be separated into Liquid or Gas functions.

<sup>&</sup>lt;sup>4</sup> Not covered under Operating Segments.

#### Survey on Petroleum Industry Occupational Injuries, Illnesses and Fatalities for the Year 2009 Data Entry Form 3 -- Non-U.S. Operations: Company Employees

| Company:          |  |
|-------------------|--|
| Respondent Email: |  |

|     | I do not wish to share my individual company data            | ı. <i>Please note,</i> | if you check   | this box you | will not   | have access to the  | Full Benchmarking Reports or |
|-----|--|------------------------|----------------|--------------|------------|---------------------|------------------------------|
| oth | er companies' Individual Reports for this type of worker. Yo | ou will <u>only</u> h  | nave access to | your report  | and the Li | imited Benchmarking | g Reports.                   |

|   |                      | Clas        | Classify Cases by Severity            |                  |                                | Enter Types of Cases Choose either injury or illness |  |  |
|---|----------------------|-------------|---------------------------------------|------------------|--------------------------------|--|--|--|
| For each Function enter the sum of cases for both Severity and Type. Each case requires an entry both for Severity and Type |                      |             | Each case should be entered only once |                  |                                |  |  |  |
| ease requires an entry both for severity and  | Ттурс                |             | in the column                         | n representing t | he greatest severity           |  | uld be entered only<br>mn as Injury or         |  |
|   | 1                    | ı           |                                       |                  |                                | Illness  |  |  |
|   | Average<br>Number of | Total Hours | Case Severity                         |                  |                                | Injury Illness                                       |  | Total OSHA   |
|   | Employees            | Worked      |                                       | Davs Away        | Job Transfer or<br>Restriction | All Injury<br>Cases                                  | All Illness<br>Cases                           | Recordable<br>Cases                                      |
| Function  | (Optional)           | (Thousands) | Death                                 | From Work        | (Optional)                     | (Optional)   | (Optional)                                     | Cases  |
| This is where you can find the information for th Form  |                      |             | Column (G)                            | Column (H)       | Column (I)                     | Column (M1)  | Sum of Columns<br>(M2) + (M3) +<br>(M4) + (M5) | Sum of Columns<br>(M1) + (M2) +<br>(M3) + (M4) +<br>(M5) |
| A. UPSTREAM   | //////               | /////       | ////                                  | ////             | <u>//////</u>                  | ////   | /////  | //////   |
| 1. Offshore Expl & Prodn and Drilling <sup>1</sup>  |                      |             |                                       |                  |                                |  |  |  |
| 2. Onshore Expl & Prodn and Drilling <sup>1</sup>   |                      |             |                                       |                  |                                |  |  |  |
| 3. Gas Processing   |                      |             |                                       |                  |                                |  |  |  |
| 4. Upstream Support Services  |                      |             |                                       |                  |                                |  |  |  |
| B. DOWNSTREAM   |                      |             |                                       |                  | //////                         | ////   | <u>/////</u>                                   |  |
| Marketing-Wholesale   |                      |             |                                       |                  |                                |  |  |  |
| Marketing-Retail  |                      |             |                                       |                  |                                |  |  |  |
| 3. Marketing-Not separated <sup>2</sup>   |                      |             |                                       |                  |                                |  |  |  |
| 4. Refining <sup>1</sup>  |                      |             |                                       |                  |                                |  |  |  |
| 5. Lubricants/Specialties   |                      |             |                                       |                  |                                |  |  |  |
| Downstream Support Services   |                      |             |                                       |                  |                                |  |  |  |
| C. PIPELINE  1. Pipeline-Liquid   | <u>/////</u>         | <u>////</u> | <u>////</u>                           | <u>////</u>      | <u>//////</u>                  | <u>////</u>  | <u>/////</u>                                   | <u>/////</u>   |
| 2. Pipeline-Gas   |                      |             |                                       |                  |                                |  |  |  |
| 3. Pipeline-Not separated <sup>3</sup>  |                      |             |                                       |                  |                                |  |  |  |
| D. MARINE   |                      |             |                                       |                  |                                |  |  |  |
| E. RESEARCH & DEVELOPMENT   |                      |             |                                       |                  |                                |  |  |  |
| F. SUPPORT SERVICES⁴  |                      |             |                                       |                  |                                |  |  |  |

 $<sup>^{\</sup>rm 1}$  Include Power Generation personnel that support this function.

## SHIFT/EXPOSURE DATA (Optional):

|  | Offshore E&P and Drilling | Marine |
|--|---------------------------|--------|
| Hours worked or exposure per while on duty |                           |        |
| Number of days on per duty cycle           |                           |        |
| Number of days off per duty cycle          |                           |        |

| Comments: |  |  |
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 $<sup>^{\</sup>rm 2}$  Marketing data unable to be separated into Wholesale or Retail functions.

 $<sup>^{\</sup>rm 3}$  Pipeline data unable to be separated into Liquid or Gas functions.

<sup>&</sup>lt;sup>4</sup> Not covered under Operating Segments.

#### Survey on Petroleum Industry Occupational Injuries, Illnesses and Fatalities for the Year 2009 Data Entry Form 4 -- Non-U.S. Operations: Contract Workers

| Company:          |  |
|-------------------|--|
| Respondent Email: |  |

I do not wish to share my individual company data. Please note, if you check this box you will not have access to the Full Benchmarking Reports or other companies' Individual Reports for this type of worker. You will only have access to your report and the Limited Benchmarking Reports.

|   |                       |                 |   |                   |                                | Ú-                   |                           | i                     |
|---|-----------------------|-----------------|---|-------------------|--------------------------------|----------------------|---------------------------|-----------------------|
| For each Function enter the sum of cases for both Severity and Type. Each |                       |                 | Classify Cases by Severity  Each case should be entered only once |                   |                                | Enter Types of Cases |                           |                       |
|   |                       |                 |   |                   |                                | Choose either        | injury or illness         |                       |
| case requires an entry both for Severity and Type                         |                       | in the colum    | nn representing the   | greatest severity | Each case shoul                | d be entered only    |                           |                       |
|   |                       |                 |   |                   |                                |                      | n as Injury or            |                       |
|   |                       |                 |   |                   |                                | Illness              |                           |                       |
|   | Average<br>Number of  | Total Hours     |   | Case Severit      | ,                              | Injury               | Illness                   | Total OSHA            |
|   | Employees             | Worked          |   | Days Away         | Job Transfer or<br>Restriction | All Injury<br>Cases  | All Illness<br>Cases      | Recordable            |
| Function  | (Optional)            | (Thousands)     | Death   | From Work         | (Optional)                     | (Optional)           | (Optional)                | Cases                 |
| T timevion  | L                     | L               | Column (G)  | Column (H)        | Column (I)                     | Column (M1)          | Sum of Columns            | Sum of Columns        |
| This is where you can find the information for                            | r the column above of | on the OSHA 300 |   |                   |                                |                      | (M2) + (M3) + (M4) + (M5) | (M1) + (M2) +         |
| Form  |                       |                 |   |                   |                                |                      | (M4) + (M3)               | (M3) + (M4) +<br>(M5) |
| A. UPSTREAM   | /////                 | /////           | /////   | /////             | //////                         | /////                | /////                     | <u>////</u>           |
| 1. Offshore Expl & Prodn and Drilling <sup>1</sup>                        |                       |                 |   |                   |                                |                      |                           |                       |
| 2. Onshore Expl & Prodn and Drilling <sup>1</sup>                         |                       |                 |   |                   |                                |                      |                           |                       |
| Gas Processing  |                       |                 |   |                   |                                |                      |                           |                       |
| 4. Upstream Support Services  |                       |                 |   |                   |                                |                      |                           |                       |
| B. DOWNSTREAM   | /////                 |                 |   |                   | 11/1///                        |                      |                           |                       |
| Marketing-Wholesale   |                       |                 |   |                   |                                |                      |                           |                       |
| Marketing-Retail  |                       |                 |   |                   |                                |                      |                           |                       |
| Marketing-Not separated <sup>2</sup>                                      |                       |                 |   |                   |                                |                      |                           |                       |
| 4. Refining <sup>1</sup>  |                       |                 |   |                   |                                |                      |                           |                       |
| 5. Lubricants/Specialties   |                       |                 |   |                   |                                |                      |                           |                       |
| Downstream Support Services   |                       |                 |   |                   |                                |                      |                           |                       |
| C. PIPELINE   | <u>/////</u>          | /////           | <u>////</u>   | /////             |                                |                      |                           |                       |
| Pipeline-Liquid   |                       |                 |   |                   |                                |                      |                           |                       |
| 2. Pipeline-Gas   |                       |                 |   |                   |                                |                      |                           |                       |
| 3. Pipeline-Not separated <sup>3</sup>                                    |                       |                 |   |                   |                                |                      |                           |                       |
| D. MARINE   |                       |                 |   |                   |                                |                      |                           |                       |
| E. RESEARCH & DEVELOPMENT   |                       |                 |   |                   |                                |                      |                           |                       |
| F. SUPPORT SERVICES⁴  |                       |                 |   |                   |                                |                      |                           |                       |

<sup>&</sup>lt;sup>1</sup> Include Power Generation personnel that support this function.

#### SHIFT/EXPOSURE DATA (Optional):

|  | Offshore E&P and Drilling | Marine |
|--|---------------------------|--------|
| Hours worked or exposure per while on duty |                           |        |
| Number of days on per duty cycle           |                           |        |
| Number of days off per duty cycle          |                           |        |

| Comments: |  |
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<sup>&</sup>lt;sup>2</sup> Marketing data unable to be separated into Wholesale or Retail functions.

<sup>&</sup>lt;sup>3</sup> Pipeline data unable to be separated into Liquid or Gas functions.

<sup>&</sup>lt;sup>4</sup> Not covered under Operating Segments.

| Company Name:  |
|--|
|  |
| Survey on Petroleum Industry Occupational Injuries, Illnesses and Fatalities for the Year 2009   |
| Part B. Explanation of Occupational Fatal Injury   |
| 11. Function (department) in which accident occurred:  |
| 12. Occupation of employee killed:   |
| 13. Explanation of conditions leading up to accident and description of accident   |
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|  |
| 14. What was the exact cause of the accident, and how can such accidents be prevented? Please give sufficient detail to make this information instructive to others. |
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| Company Name:  |
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|  |
| Survey on Petroleum Industry Occupational Injuries, Illnesses and Fatalities for the Year 2009   |
| Part B. Explanation of Occupational Fatal Injury   |
| 11. Function (department) in which accident occurred:  |
| 12. Occupation of employee killed:   |
| 13. Explanation of conditions leading up to accident and description of accident   |
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|  |
| 14. What was the exact cause of the accident, and how can such accidents be prevented? Please give sufficient detail to make this information instructive to others. |
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# Instructions for Completing The Survey on Petroleum Industry Occupational Injuries, Illnesses, and Fatalities (2009 Data)

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*. Companies may logon to http://oii.api.org enter their data and view reports. In addition, the online database gives companies willing to share their individual data the ability to produce customized reports for benchmarking purposes.

However, if a company prefers to submit their data on paper, they may use the data collection forms received in the mail.

There are five data entry forms, one each for entering U.S. employee data, Non-U.S. employee data, U.S. contractor data, Non-U.S. contractor data and one for any company fatality incidents.

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".

The Occupational Injuries, Illnesses, and Fatalities Reporting System generates two broad categories of reports for each type of worker, Full Benchmarking and Limited Benchmarking reports. Companies that only submit data for the required fields will only be given access to Limited Benchmarking reports.

To gain access to a Full Report for a particular worker type a company must: 1) provide data for both required and optional fields for each of the functions for which they are submitting data 2) and be willing to share their data with other participants.

To meet our publication deadline, we need your data no later than Thursday, February 25, 2010

If you have questions, please contact: Jeff Obermiller at (202) 682-8508 or <a href="mailto:obermiller@api.org">obermiller@api.org</a>

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#### 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 should be described on the back of the form or attached on a separate sheet. *It is extremely important that deviations from API definitions be noted in the comments section.* 

# 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. For instance, on the "Data Entry Form 1 - U.S. Operations: Company Employees", the injuries reported should be those experienced by the employees included in the "Average Number of Employees" column. The objective is to compare injuries and illnesses to the corresponding employees at risk.

#### **Function Definitions Supersede NAICS Categories**

The API function (department) 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 SIC categories 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, Office of Management and Budget, Executive Office of the President (1997 edition).

#### **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 (e.g. hours worked and number of employees).

#### 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 submitted (e.g. hours worked and number of employees).

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.
- Marine crude and product transport, work boats and supply vessels.
- Aviation services, including helicopter and fixed wing transport.
- Public road transportation, bus, van, automobile and truck.
- Third-party truck deliveries (crude, product, other).
- Visitors, tour groups, public officials, mail couriers, vending machine, floor mat, laundry/uniform supply companies and other similar incidental contractors.

#### **Joint Venture Operations**

The basis for injury, illness and fatality reporting is that each employer (company) reports cases pertaining to its own employees or contract workers who provide services to the employer (company).

# II. Reporting Occupational Injuries and Illnesses Data

| Field  | Definition   |
|--|--|
| Function                                     | The function categories are defined in Appendix A of this document.  |
| Average Number of Employees (Optional field) | Average number of full time employees for the reporting year (which may differ significantly from the number of employees at year-end).  |
| 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/employee/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<br>(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. |

# III. Reporting Occupational Fatal Injuries Data

These data entry forms should be submitted along with the annual Occupational Injuries and Illnesses report for the reporting company.

Unlike the annual Occupational Injuries and Illnesses report, the Occupational Fatality Report procedure requires narrative and other information on individual incidents that have resulted in employee deaths. Each employer is to report fatalities pertaining <u>only</u> to its own employees.

One copy of the <u>Occupational Fatal Injury Incident Report</u> form is to be used to report <u>each incident</u> that results in one or more fatalities. One copy of the <u>Explanation of Fatal Occupational Injury to Employee Form</u> is to be used to report each fatality. All forms pertaining to one incident should be stapled together when submitted to API.

There may be occasions when one fatality incident being reported is a contributory or precipitating factor or happens to be in progress at the time of occurrence of a second (or third) incident which also results in a fatality. In this case, a separate <u>incident report</u> should be prepared and submitted for <u>each</u> identifiable incident which is the direct cause of one or more fatalities; the link between such incidents, (if any), should also be explained on each report. For example, one employee could be fatally burned in a flash fire and another employee could be killed by an unrelated equipment failure while fighting the fire. In this instance, the separate incident reports would simply refer to the employee's participation as a firefighter; the only link between the two incidents.

#### A. Occupational Fatal Injury Incident Report

#### 1. Date of Incident

This will be the date of the injury incident, which resulted in the fatality. This may or may not be the same as the date of death. OSHA instructions for determining "Date of Injury" should be used for consistency.

#### 2. Number of Fatalities in This Incident

The total number of employees who died as a result of the particular incident that is being reported. "Delayed" deaths that occur after the incident are to be included if the deaths were a result of the incident. For example, if a fire killed on person outright, and a second died three weeks later from lung damage caused by the fire, <u>both</u> should be reported.

In some cases, a delayed fatality occurs in the next calendar year after the incident. For example, if the above fire occurred on December 21, 2001, the second death from it would have been in January 2003. ALL FATALITIES FROM AN INCIDENT SHOULD BE INCLUDED IN THE REPORT FOR THE YEAR OF THAT INCIDENT. In the above case, the fatality in January 2003 would be reported with the 2003 data.

## 3. Sex and Age of Victim

The sex of each victim should be reported as "M" for male or "F" for female. Age should be reported in years. An estimate should be reported if the exact age is not known. Three fatalities—two males aged 25 and 51 and one female aged 32, would be reported as follows: M-25, M-51-F-32

#### 4. Function

The function chosen should be consistent with the definitions contained in this document. Generally an entry should be made for the function to which the employee was assigned (e.g. the function that paid his or her salary; not where he or she was at the time of the incident). If employees from more than one function are involved, the number involved should be entered for each function.

#### 5. Offshore or not Offshore

A <u>check</u> should be placed in the appropriate box to indicate whether or not the incident occurred offshore.

#### 6. Occupational Category

A <u>check</u> should be made in the boxes best describing the occupation(s) of each employee killed in the incident. If two or more had the same occupation, that number should be entered in the appropriate category. Examples of occupations for each category are given below:

- ADMINISTRATION, MANAGEMENT, SALES, SUPPORT STAFF Company officer, upper and middle managers, sales force, administration and service/support employees, computer programmer, draftsman, land man, land agent, scout; medical, legal, accounting staff.
- FOREMAN, SUPERVISOR Drilling foreman, tool pusher, production or process area supervisor, shift foreman, maintenance/craft foreman –the one or two levels of supervision involved in day-to-day direction of producing, processing, storage, transportation or maintenance activities.
- ENGINEER, SCIENTIST, TECHNICIAN Chemical engineer, petroleum engineer, mechanical engineer, geologist, geophysicist, chemist, toxicologist, surveyor, lab technician, safety and industrial hygiene staff.
- PROCESS/EQUIPMENT OPERATOR Lease operator, plant operator, pumper, process operator, boiler house or utilities operator, compressor operator, stationary or marine engine man.
- DRILLING/WELL SERVICING OPERATOR Driller, derrick man, floor hand, well puller, wire line operator.
- TRANSPORTATION OPERATOR Truck driver, deliveryman, pilot, ship's officer, driver/salesman, and those employees whose occupations depend on their operation of land, sea or air transportation vehicles or craft.
- HEAVY EQUIPMENT OPERATOR Crane or dragline operator, road-building machinery operator, bulldozer or other off-road vehicle operator, forklift operator.
- SERVICE STATION WORKERS Station attendant, cashier, and mechanic.
- MAINTENANCE, CRAFTSMAN mechanic (other than service station), machinist, electrician, pipe fitter, welder, carpenter, painter, boilermaker, insulator.
- MANUAL LABOR Dockworker, roustabout, roughneck, laborer, janitor, deckhand, construction or maintenance helper.

• OTHER – Security and emergency response personnel, and others <u>not</u> included in the classifications above.

## 7. Specific Job Title

The specific job title of each employee killed should be provided. Examples are pipe fitter, petroleum engineer, truck driver, auto mechanic, or driller. More examples are given in the definitions in item 6 above. Supervisory ranks should be indicated as part of the job title.

#### 8. Medical Cause of Death

This is the cause of death recorded on the death certificate. It usually will be in terms required by the state health department. Where two types of causes are provided, such as "pulmonary edema" caused by "inhalation of hot gases from a fire," provide both.

## 9. Type of Incident

Check the box that indicates the general type of incident it was. If the general categories do not apply, check the "other" box and write in a few key words on the type of incident. The general categories are:

• Motor Vehicle Accident: A fatality caused by being injured within or by a motor vehicle.

A motor vehicle is any gasoline, LPG, diesel, or electrical powered device and its mobile attachments on or by which people or property may be transported on a land highway. It must be owned, leased, or rented by the reporting company. The vehicle must be operated, at least in part, on public streets or highways. Excluded are vehicles operated on fixed rails, horse drawn vehicles, industrial forklifts, road construction and maintenance machinery, crawler cranes, draglines, farm equipment, bicycles, or other similar equipment. In the case of rented vehicles or driver-owned vehicles on company business, accidents should be reported only if the company can generate mileage information as described below. The load on a vehicle is considered part of the vehicle if an accident occurs that involves the load.

- Other transportation (Aircraft, Train, and Ship): Generally, any transportation accident other than those involving motor vehicles.
- Fires and explosions: A fatality caused by burns, toxic gases, or other effects of a fire or explosion. "Explosion" here means a rapid combustion, not an overpressure.
- Drowning: Self-explanatory.
- Caught in or between: Includes fatalities such as those caused by being crushed or otherwise injured by machinery or other objects, caught between steel beams being moved, caught between a ship and a dock, etc.
- Struck by equipment, vehicles, or falling objects: An injury caused by being struck by a
  derailer, a forklift, dropped hand tools, etc. Occupational fatalities involving employee
  pedestrians are to be included here.
- Fall: A fatality caused by falling over something or falling off or onto something.
- Toxic gas or liquid (other than from fire): A fatality from toxic gases or liquids that did not result from a fire or combustion explosion. Fatalities from pipe overpressures that release toxic gases should be included here.

- Electrocution: Self-explanatory.
- Other: To be used for types of incidents that do not fit in the above categories.

NOTE: A fatality could involve more than one of these categories. Use the one that best describes the causal event from the point of view of describing prevention problems. For example, a fall caused by being struck by a crane would be classified, as "struck by equipment" -that is the action that should have been prevented, even though a fall was involved.

#### 10. Narrative Description of the Incident, Including Circumstances That Led to Fatalities

Some narrative can be provided on very fatal accidents, though some details may have to be withheld on legal advice. Provide at least as much as was provided to the press and public services such as to the medical report, fire incident report, policy report, etc. Caveats as to the uncertainties on various points of information may be included.

If possible, the narrative should include a factual description of the incident, how it came about, how the victim(s) happened to be involved, and circumstances that contributed to the fatality (e.g. lack of use of protective gear contrary to company policy).

#### **B.** Explanation Of Occupational Fatal Injury To Employee

This form is self-explanatory and should be completed for each employee fatally injured in a work-related incident. All forms for each incident (one or more for this one and the one described above) should be stapled together when submitted to API.

# Appendix A

## **Company Functions**

#### 1. Summary Of Function Categories

| UPSTREAM                          |  |
|-----------------------------------|--|
| Exploration and Production        | Report separately for offshore and onshore operations, include drilling                                      |
| Gas Processing                    |  |
| Upstream Support Services         |  |
| 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       |  |
| 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.                           |
| MARINE                            |  |
| RESEARCH AND DEVELOPMENT          |  |
| SUPPORT SERVICES (See note below) | Includes services not covered by one of the operating segments. Also includes credit card operations.        |

<u>NOTE:</u> 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.

As a general 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.

#### 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 42271)

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 <u>not</u> 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 42271 and 44711)

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

#### Refining (NAICS 32411)

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 48611 and 48691)

Gathering system and trunk line operations for crude oil. Transportation via pipeline of refined and semi-refined products. Pipeline station operations. 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 in that function, not here.

#### Pipeline-Gas (NAICS 48621)

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

#### Pipeline-Not Separated (NAICS 48611 and 48691 and 48621)

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

## 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)<sup>1</sup>

Typical general support services <u>not</u> 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 <u>not</u> 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.

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<sup>&</sup>lt;sup>1</sup> 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 work day 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 \$30.00/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 X \$6,000,000) = \$3,120,000 (labor cost) / \$30.00 (labor rate) = 104,000 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 <a href="www.api.org">www.api.org</a> (click on **Industry Sectors** under "About Oil and Natural Gas", then **Pipeline**, and scroll 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
  - $\circ$  6,000,000 / 80 = 75,000 hours.

Information about API publications, programs, and services is available at <a href="http://www.api.org">http://www.api.org</a>

1220 L Street, Northwest Washington, D.C. 20005-4070 (202) 682-8000