

# 1997

## Summary of U.S. Occupational Injuries, Illnesses, and Fatalities in the Petroleum Industry

As Reported to the  
American Petroleum Institute

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Covering U.S. Petroleum and Petrochemical  
Operations of Reporting Companies for 1997

API Publication 2376  
April 1998



One of the most significant long-term trends affecting the future vitality of the petroleum industry is the public's concerns about the environment. Recognizing this trend, API member companies have developed a positive, forward looking strategy called STEP: Strategies for Today's Environmental Partnership. This program aims to address public concerns by improving industry's environmental, health and safety performance; documenting performance improvements; and communicating them to the public. The foundation of STEP is the API Environmental Mission and Guiding Environmental Principles. API standards, by promoting the use of sound engineering and operational practices, are an important means of implementing API's STEP program.

### **API ENVIRONMENTAL MISSION AND GUIDING ENVIRONMENTAL PRINCIPLES**

The members of the American Petroleum Institute are dedicated to continuous efforts to improve the compatibility of our operations with the environment while economically developing energy resources and supplying high quality products and services to consumers. The members recognize the importance of efficiently meeting society's needs and our responsibility to work with the public, the government, and others to develop and to use natural resources in an environmentally sound manner while protecting the health and safety of our employees and the public. To meet these responsibilities, API members pledge to manage our businesses according to these principles:

- To recognize and to respond to community concerns about our raw materials, products and operations.
- To operate our plants and facilities, and to handle our raw materials and products in a manner that protects the environment, and the safety and health of our employees and the public.
- To make safety, health and environmental considerations a priority in our planning, and our development of new products and processes.
- To advise promptly appropriate officials, employees, customers and the public of information on significant industry-related safety, health and environmental hazards, and to recommend protective measures.
- To counsel customers, transporters and others in the safe use, transportation and disposal of our raw materials, products and waste materials.
- To economically develop and produce natural resources and to conserve those resources by using energy efficiently.
- To extend knowledge by conducting our supporting research on the safety, health and environmental effects of our raw materials, products, processes and waste materials.
- To commit to reduce overall emissions and waste generation.
- To work with others to resolve problems created by handling and disposal of hazardous substances from our operations.
- To participate with government and others in creating responsible laws, regulations and standards to safeguard the community, workplace and environment.
- To promote these principles and practices by sharing experiences and offering assistance to others who produce, handle, use, transport or dispose of similar raw materials, petroleum products and wastes.

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**Covering U.S. Petroleum and Petrochemical  
Operations of Reporting Companies for 1997**

**Prepared for the Health and Environmental Affairs Department  
by the Finance, Accounting and Statistics Department**

API Publication 2376  
April 1998

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Suggested revisions are invited and should be submitted to the director of the Health and Environmental Affairs Department, American Petroleum Institute, 1220 L Street, N.W., Washington, D.C. 20005.



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# REPORTED U.S. OCCUPATIONAL INJURIES, ILLNESSES, AND FATALITIES IN THE PETROLEUM INDUSTRY: 1997

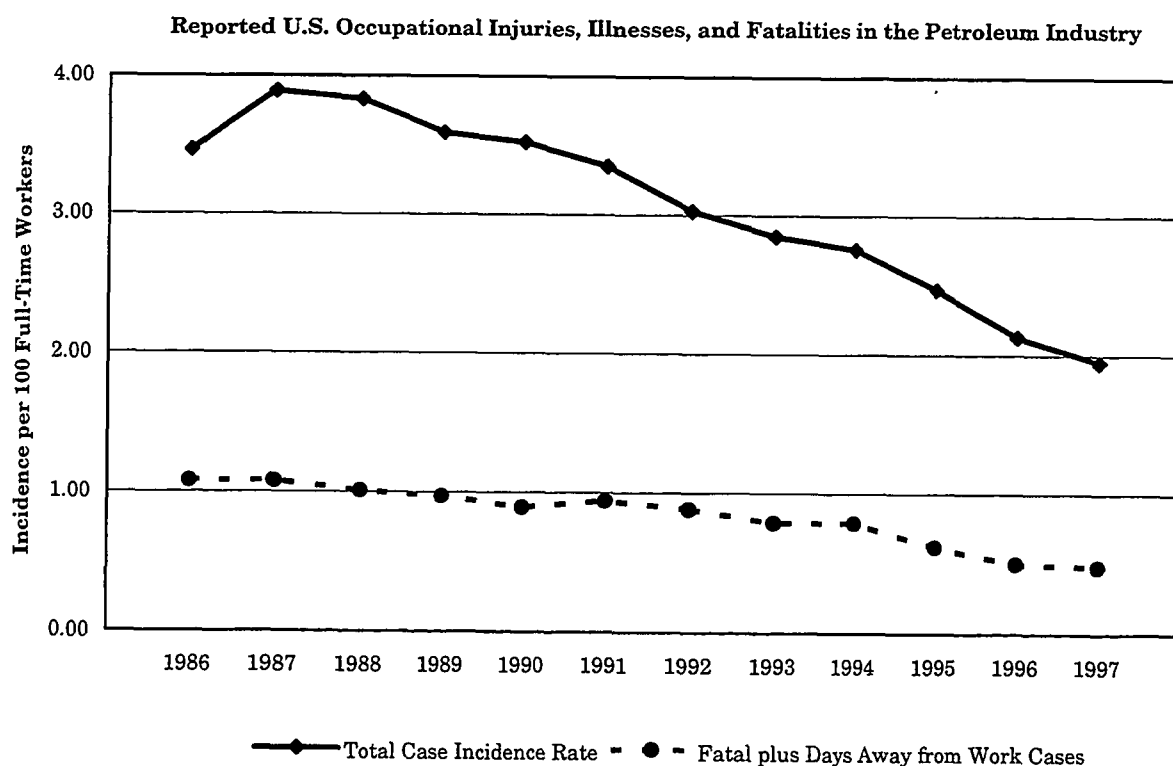
## SUMMARY

This report is an aggregate of data submitted to the American Petroleum Institute (API) by 139 oil and gas companies (including 11 subsidiaries), employing 231,332 persons with a total work experience of 470 million hours during 1997. In 1996, 140 companies reported 228,209 employees with a work experience of 463 million hours. Individual company participation varies from year to year, yet 95 companies, representing 92 percent of the number of employees and 92 percent of the number of hours worked in 1997 had responded to this survey for the past 2 years.

In 1997, the *Total Case Incidence Rate* was 1.95, compared to 2.13 for 1996. 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 *Fatal Plus Days Away From Work Incidence Rate* for 1997 was .48 per 200,000 hours worked—or one case for every 208 employees, improving slightly from .50 for 1996—or one case for every 200 employees.

Safety among reporting companies continues to improve, as shown in the figure below. Since 1986, the *Total Case Incidence Rate* and *Fatal plus Days Away from Work Incidence Rate* have improved an average of 4.9 and 6.8 percent per year, respectively.



## The Survey

Company participation in the API annual statistical survey is voluntary. Participants were asked to submit data according to the Bureau of Labor Statistics (BLS) Recordkeeping Guidelines for Occupations Injuries and Illnesses, September 1986 edition. Therefore, this report provides incidence rates per 200,000 hours worked on the same basis as those reported by BLS. It should be noted, however, that this report covers *company employees* only; contract worker safety statistics are not included.

Significant differences exist among companies regarding return-to-work policies and practices, i.e., for returning injured or ill employees to restricted activity if they are unable to perform normal job activities and as part of their recoveries. Therefore, use of the *Fatal plus Days Away From Work Incidence Rates alone* to judge and compare company safety performance is not recommended.

The Bureau of Labor Statistics (BLS) publishes employment figures for different sectors of the petroleum industry. The following table shows the number of full-time employees given in this API report and the comparative total employment figures published by BLS. These figures can be used to calculate the API survey representation rate.

| Employment in the Petroleum Industry |                  |                             |               |                 |
|--------------------------------------|------------------|-----------------------------|---------------|-----------------|
|                                      | E&P and Drilling | Refining and Gas Processing | Oil Pipelines | Total Marketing |
| BLS                                  | 320.1            | 96.8                        | 14.3          | 835.4           |
| API                                  | 41.4             | 47.8                        | 11.8          | 60.8            |
| API Representation Rate              | 13%              | 49%                         | 83%           | 7%              |

*Employment figures are in thousands. 1997 BLS figures are current as of February 1998.*

Caution should be used, however, when interpreting these representation rates. As mentioned above, the API survey is limited to *company employees* while the BLS has a more inclusive definition of employment (the BLS includes contract workers).

Of the 139 companies that responded, 85 agreed to have their company data published individually. However, the total listed for each function is the total for *all* reporting companies—not just the sum of the individual companies appearing in that section of the report.

Additional copies of this report may be obtained by contacting the API Publications and Distribution Department at (202) 682-8375.

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**U.S. Occupational Injuries and Illnesses for 1997**  
**Covering Petroleum and Petrochemical Operations of Reporting Companies**

**Table 1 -- Company Totals (Including Offshore Activities)**

| 1                   |      | 2                                 | 3                              | 4                |           |       | 5                                        |                                 |                                                 |                                        |                                                 |                                                   | 6               |                                                  |                                                |
|---------------------|------|-----------------------------------|--------------------------------|------------------|-----------|-------|------------------------------------------|---------------------------------|-------------------------------------------------|----------------------------------------|-------------------------------------------------|---------------------------------------------------|-----------------|--------------------------------------------------|------------------------------------------------|
| Function            | Key" | Average<br>Number of<br>Employees | Hours<br>Worked<br>(Thousands) | Recordable Cases |           |       | Extent and Outcome of Injury and Illness |                                 |                                                 |                                        |                                                 |                                                   | Incidence Rates |                                                  |                                                |
|                     |      |                                   |                                | a                | b         | c     | d                                        | e                               | f                                               | g                                      | h                                               | i                                                 | j               | k                                                | l                                              |
|                     |      |                                   |                                | Injuries         | Illnesses | Total | Fatalities                               | Total Lost<br>Workday<br>Cases* | Cases<br>Involving<br>Days Away<br>From<br>Work | Number of<br>Days Away<br>From<br>Work | Number of<br>Days of<br>Restricted<br>Activity* | Non-Fatal<br>Cases<br>Without<br>Lost<br>Workdays | Total Cases     | Fatal plus<br>Days Away<br>From<br>Work<br>Cases | Lost Work<br>Days -- Days<br>Away From<br>Work |
| Exploration         | a    | 911                               | 1,717                          | 3                | 0         | 3     | 0                                        | 1                               | 0                                               | 0                                      | 33                                              | 2                                                 | 0.35            | 0.00                                             | 0.00                                           |
| Production          | b    | 13,323                            | 28,008                         | 191              | 13        | 204   | 0                                        | 107                             | 52                                              | 1,114                                  | 1,285                                           | 97                                                | 1.46            | 0.37                                             | 7.95                                           |
| E&P-Not sep¹        | ab   | 26,471                            | 55,594                         | 344              | 22        | 366   | 0                                        | 155                             | 142                                             | 2,207                                  | 537                                             | 211                                               | 1.32            | 0.51                                             | 7.94                                           |
| E&P Subtotal        |      | 40,705                            | 85,319                         | 538              | 35        | 573   | 0                                        | 263                             | 194                                             | 3,321                                  | 1,855                                           | 310                                               | 1.34            | 0.45                                             | 7.78                                           |
| Gas Processing      | c    | 3,788                             | 7,797                          | 48               | 1         | 49    | 0                                        | 18                              | 6                                               | 283                                    | 99                                              | 31                                                | 1.26            | 0.15                                             | 7.26                                           |
| Drilling            | d    | 743                               | 1,487                          | 31               | 1         | 32    | 0                                        | 27                              | 23                                              | 466                                    | 24                                              | 5                                                 | 4.30            | 3.09                                             | 62.68                                          |
| Petrochemical Mfg.  | e    | 17,925                            | 37,583                         | 279              | 27        | 306   | 0                                        | 155                             | 69                                              | 1,213                                  | 1,774                                           | 151                                               | 1.63            | 0.37                                             | 6.46                                           |
| Refining            | f    | 44,054                            | 94,084                         | 1,066            | 80        | 1,146 | 1                                        | 558                             | 277                                             | 5,390                                  | 8,437                                           | 587                                               | 2.44            | 0.59                                             | 11.46                                          |
| Marketing-Whole.    | g    | 14,131                            | 29,650                         | 377              | 7         | 384   | 0                                        | 242                             | 108                                             | 2,285                                  | 1,412                                           | 142                                               | 2.59            | 0.73                                             | 15.41                                          |
| Marketing-Retail    | h    | 32,256                            | 55,707                         | 1,197            | 15        | 1,212 | 1                                        | 616                             | 172                                             | 2,329                                  | 5,800                                           | 595                                               | 4.35            | 0.62                                             | 8.36                                           |
| Mrkt-Not sep²       | gh   | 14,423                            | 29,416                         | 216              | 21        | 237   | 2                                        | 106                             | 71                                              | 548                                    | 302                                             | 129                                               | 1.61            | 0.50                                             | 3.73                                           |
| Mrkt. Subtotal      |      | 60,810                            | 114,773                        | 1,790            | 43        | 1,833 | 3                                        | 964                             | 351                                             | 5,162                                  | 7,514                                           | 866                                               | 3.19            | 0.62                                             | 9.00                                           |
| Pipeline-Liquid     | i    | 11,777                            | 23,659                         | 190              | 11        | 201   | 1                                        | 88                              | 63                                              | 1,264                                  | 814                                             | 112                                               | 1.70            | 0.54                                             | 10.69                                          |
| Pipeline-Gas        | j    | 3,825                             | 8,524                          | 81               | 8         | 89    | 0                                        | 31                              | 31                                              | 820                                    | 195                                             | 58                                                | 2.09            | 0.73                                             | 19.24                                          |
| Pipeline-Not sep³   | ij   | 1,596                             | 3,335                          | 28               | 3         | 31    | 0                                        | 11                              | 9                                               | 48                                     | 70                                              | 20                                                | 1.86            | 0.54                                             | 2.88                                           |
| Pipeline Subtotal   |      | 17,198                            | 35,518                         | 299              | 22        | 321   | 1                                        | 130                             | 103                                             | 2,132                                  | 1,079                                           | 190                                               | 1.81            | 0.59                                             | 12.01                                          |
| Marine-Tanker       | k    | 0                                 | 0                              | 0                | 0         | 0     | 0                                        | 0                               | 0                                               | 0                                      | 0                                               | 0                                                 | 0.00            | 0.00                                             | 0.00                                           |
| Marine-Inland       | l    | 301                               | 634                            | 8                | 0         | 8     | 0                                        | 5                               | 0                                               | 0                                      | 57                                              | 3                                                 | 2.52            | 0.00                                             | 0.00                                           |
| Marine-Not sep⁴     | kl   | 1,892                             | 4,680                          | 56               | 5         | 61    | 0                                        | 35                              | 23                                              | 1,215                                  | 186                                             | 26                                                | 2.61            | 0.98                                             | 51.92                                          |
| Marine Subtotal     |      | 2,193                             | 5,314                          | 64               | 5         | 69    | 0                                        | 40                              | 23                                              | 1,215                                  | 243                                             | 29                                                | 2.60            | 0.87                                             | 45.73                                          |
| Research & Dev.     | m    | 6,606                             | 13,342                         | 40               | 7         | 47    | 0                                        | 12                              | 5                                               | 69                                     | 103                                             | 35                                                | 0.70            | 0.07                                             | 1.03                                           |
| General Services    | n    | 5,556                             | 11,129                         | 37               | 21        | 58    | 0                                        | 27                              | 17                                              | 624                                    | 306                                             | 31                                                | 1.04            | 0.31                                             | 11.21                                          |
| Admin., Eng., Other | o    | 31,754                            | 63,855                         | 100              | 43        | 143   | 0                                        | 60                              | 46                                              | 651                                    | 175                                             | 83                                                | 0.45            | 0.14                                             | 2.04                                           |
| Total               |      | 231,332                           | 470,201                        | 4,292            | 285       | 4,577 | 5                                        | 2,254                           | 1,114                                           | 20,526                                 | 21,609                                          | 2,318                                             | 1.95            | 0.48                                             | 8.73                                           |

# U.S. Occupational Injuries and Illnesses for 1997

## Covering Petroleum and Petrochemical Operations of Reporting Companies

**Table 2 -- Offshore Functions**

| 1<br>Function                                  | Key <sup>f</sup> | 2<br>Average<br>Number of<br>Employees | 3<br>Hours<br>Worked<br>(Thousands) | 4<br>Recordable Cases |           |            | 5<br>Extent and Outcome of Injury and Illness |                                 |                                                 |                                        |                                                 |                                                   | 6<br>Incidence Rates |                                                  |                                                |
|------------------------------------------------|------------------|----------------------------------------|-------------------------------------|-----------------------|-----------|------------|-----------------------------------------------|---------------------------------|-------------------------------------------------|----------------------------------------|-------------------------------------------------|---------------------------------------------------|----------------------|--------------------------------------------------|------------------------------------------------|
|                                                |                  |                                        |                                     | a                     | b         | c          | d                                             | e                               | f                                               | g                                      | h                                               | i                                                 | j                    | k                                                | l                                              |
|                                                |                  |                                        |                                     | Injuries              | Illnesses | Total      | Fatalities                                    | Total Lost<br>Workday<br>Cases* | Cases<br>Involving<br>Days Away<br>From<br>Work | Number of<br>Days Away<br>From<br>Work | Number of<br>Days of<br>Restricted<br>Activity* | Non-Fatal<br>Cases<br>Without<br>Lost<br>Workdays | Total Cases          | Fatal plus<br>Days Away<br>From<br>Work<br>Cases | Lost Work<br>Days -- Days<br>Away From<br>Work |
| Offshore Exploration                           | a                | 0                                      | 0                                   | 0                     | 0         | 0          | 0                                             | 0                               | 0                                               | 0                                      | 0                                               | 0                                                 | 0.00                 | 0.00                                             | 0.00                                           |
| Offshore Production                            | b                | 2,165                                  | 4,635                               | 46                    | 3         | 49         | 0                                             | 32                              | 22                                              | 645                                    | 281                                             | 17                                                | 2.11                 | 0.95                                             | 27.83                                          |
| Offshore Drilling                              | d                | 254                                    | 534                                 | 0                     | 1         | 1          | 0                                             | 0                               | 0                                               | 0                                      | 0                                               | 1                                                 | 0.37                 | 0.00                                             | 0.00                                           |
| Combinations of<br>Above- Not sep <sup>g</sup> | abd              | 3,690                                  | 7,646                               | 80                    | 1         | 81         | 0                                             | 58                              | 45                                              | 349                                    | 79                                              | 23                                                | 2.12                 | 1.18                                             | 9.13                                           |
| <b>Total Offshore</b>                          |                  | <b>6,109</b>                           | <b>12,815</b>                       | <b>126</b>            | <b>5</b>  | <b>131</b> | <b>0</b>                                      | <b>90</b>                       | <b>67</b>                                       | <b>994</b>                             | <b>360</b>                                      | <b>41</b>                                         | <b>2.04</b>          | <b>1.05</b>                                      | <b>15.51</b>                                   |

### Incidence Rate Formulas

Column 6(j) =  $\frac{\text{Column 4(c)} \times 200}{\text{Column 3}}$

Column 6(k) =  $\frac{(\text{Column 5(d)} + \text{Column 5(f)}) \times 200}{\text{Column 3}}$

Column 6(l) =  $\frac{\text{Column 5(g)} \times 200}{\text{Column 3}}$

### Endnotes

- <sup>1</sup> E&P data unable to be separated into Exploration or Production functions.
- <sup>2</sup> Marketing data unable to be separated into Wholesale or Retail functions.
- <sup>3</sup> Pipeline data unable to be separated into Liquid or Gas functions.
- <sup>4</sup> Marine data unable to be separated into Tanker or Inland.
- <sup>5</sup> Keyed to definitions outlined in the API Fire and Safety Data Systems User's Manual.
- <sup>6</sup> If functions cannot be separated as listed, indicate in the 'Key' column the functions for which data is provided on this line. For example, 'ab' (Exploration & Production - Not Separated).
- \* Includes restricted activity.

# U.S. Occupational Injuries and Illnesses for 1997

## Covering Petroleum and Petrochemical Operations of Reporting Companies

a - Exploration  
b - Production  
(ab) - Exploration & Production - Not Sep.  
c - Gas Processing

d - Drilling  
e - Petrochemical Manufacturing  
f - Refining  
g - Marketing - Wholesale

h - Marketing - Retail  
(gh) - Marketing - Not Sep.  
i - Pipeline - Liquid  
j - Pipeline - Gas

(ij) - Pipeline - Not Sep.  
k - Marine - Tanker  
l - Marine - Inland  
(kl) - Marine - Not Sep.

m - Research & Development  
n - General Services  
o - Admin., Engineering, & Other

| Company ID | Average Number of Employees | Hours Worked in Thousands | Recordable Cases |           |       | Extent and Outcome of Injury and Illness |                          |                                     |                               |                                       |                                       | Incidence Rates |                                      |                                       |
|------------|-----------------------------|---------------------------|------------------|-----------|-------|------------------------------------------|--------------------------|-------------------------------------|-------------------------------|---------------------------------------|---------------------------------------|-----------------|--------------------------------------|---------------------------------------|
|            |                             |                           | Injuries         | Illnesses | Total | Fatalities                               | Lost Workday Cases       |                                     |                               |                                       |                                       | Total Cases     | Fatal plus Days Away From Work Cases | Lost Work Days -- Days Away From Work |
|            |                             |                           |                  |           |       |                                          | Total Lost Workday Cases | Cases Involving Days Away From Work | Number of Days Away From Work | Number of Days of Restricted Activity | Non-Fatal Cases Without Lost Workdays |                 |                                      |                                       |

### All Functions

|       |         |         |       |     |       |   |       |       |        |        |       |       |       |        |                                  |
|-------|---------|---------|-------|-----|-------|---|-------|-------|--------|--------|-------|-------|-------|--------|----------------------------------|
| Total | 231,332 | 470,201 | 4,292 | 285 | 4,577 | 5 | 2,254 | 1,114 | 20,526 | 21,609 | 2,318 | 1.95  | 0.48  | 8.73   |                                  |
| 11    | 2,954   | 5,993   | 56    | 0   | 56    | 0 | 27    | 7     | 200    | 443    | 29    | 1.87  | 0.23  | 6.67   | (ab),e,f,g,h,i,m,o               |
| 13    | 26,029  | 44,836  | 1,147 | 21  | 1,168 | 1 | 633   | 114   | 2,346  | 7,169  | 534   | 5.21  | 0.51  | 10.46  | b,e,f,g,h,i,l,m,n,o              |
| 14    | 9,276   | 20,329  | 111   | 14  | 125   | 0 | 35    | 23    | 434    | 393    | 90    | 1.23  | 0.23  | 4.27   | a,(ab),b,c,d,f,(gh),i,(kl),m,n,o |
| 17    | 600     | 1,305   | 3     | 0   | 3     | 0 | 1     | 1     | 2      | 0      | 2     | 0.46  | 0.15  | 0.31   | i                                |
| 19    | 357     | 743     | 3     | 0   | 3     | 0 | 3     | 3     | 34     | 0      | 0     | 0.81  | 0.81  | 9.15   | (ab)                             |
| 24    | 21,730  | 43,222  | 277   | 59  | 336   | 2 | 162   | 152   | 1,366  | 355    | 172   | 1.55  | 0.71  | 6.32   | (ab),e,f,(gh),(ij),m,n,o         |
| 27    | 1,397   | 3,221   | 15    | 1   | 16    | 0 | 12    | 12    | 269    | 0      | 4     | 0.99  | 0.75  | 16.70  | (ab),o                           |
| 29    | 652     | 1,353   | 8     | 0   | 8     | 0 | 0     | 0     | 0      | 0      | 8     | 1.18  | 0.00  | 0.00   | i                                |
| 31    | 3,529   | 7,894   | 75    | 5   | 80    | 0 | 28    | 28    | 721    | 118    | 52    | 2.03  | 0.71  | 18.27  | (ab),j                           |
| 32    | 10,468  | 21,768  | 39    | 0   | 39    | 0 | 21    | 3     | 163    | 317    | 18    | 0.36  | 0.03  | 1.50   | (ab),c,f,(gh),i,(kl),m,n,o       |
| 33    | 16      | 32      | 0     | 0   | 0     | 0 | 0     | 0     | 0      | 0      | 0     | 0.00  | 0.00  | 0.00   | i                                |
| 38    | 129     | 277     | 0     | 0   | 0     | 0 | 0     | 0     | 0      | 0      | 0     | 0.00  | 0.00  | 0.00   | i                                |
| 41    | 17,003  | 35,323  | 158   | 29  | 187   | 0 | 99    | 30    | 1,144  | 1,380  | 88    | 1.06  | 0.17  | 6.48   | b,f,g,h,i,(kl),n,o               |
| 43    | 373     | 856     | 93    | 15  | 108   | 0 | 26    | 26    | 519    | 208    | 82    | 25.23 | 6.07  | 121.26 | f                                |
| 57    | 19      | 36      | 2     | 0   | 2     | 0 | 2     | 2     | 45     | 0      | 0     | 11.11 | 11.11 | 250.00 | c                                |
| 58    | 408     | 838     | 4     | 0   | 4     | 0 | 1     | 1     | 162    | 0      | 3     | 0.95  | 0.24  | 38.66  | a,b                              |
| 60    | 352     | 700     | 6     | 1   | 7     | 0 | 4     | 2     | 18     | 61     | 3     | 2.00  | 0.57  | 5.14   | i                                |
| 65    | 6,855   | 13,069  | 86    | 6   | 92    | 0 | 36    | 3     | 29     | 676    | 56    | 1.41  | 0.05  | 0.44   | a,b,c,d,f,g,h,i,m,n,o,           |
| 74    | 163     | 336     | 9     | 0   | 9     | 0 | 4     | 3     | 26     | 106    | 5     | 5.36  | 1.79  | 15.48  | j,n,o                            |
| 90    | 17,231  | 35,854  | 200   | 11  | 211   | 1 | 108   | 49    | 913    | 836    | 102   | 1.18  | 0.28  | 5.09   | (ab),c,e,f,g,h,i,m,n,o           |
| 91    | 260     | 506     | 2     | 0   | 2     | 0 | 0     | 0     | 0      | 0      | 2     | 0.79  | 0.00  | 0.00   | i                                |

# U.S. Occupational Injuries and Illnesses for 1997

## Covering Petroleum and Petrochemical Operations of Reporting Companies

a - Exploration  
b - Production  
(ab) - Exploration & Production - Not Sep.  
c - Gas Processing

d - Drilling  
e - Petrochemical Manufacturing  
f - Refining  
g - Marketing - Wholesale

h - Marketing - Retail  
(gh) - Marketing - Not Sep.  
i - Pipeline - Liquid  
j - Pipeline - Gas

(ij) - Pipeline - Not Sep.  
k - Marine - Tanker  
l - Marine - Inland  
(kl) - Marine - Not Sep.

m - Research & Development  
n - General Services  
o - Admin., Engineering, & Other

| Company ID | Average Number of Employees | Hours Worked in Thousands | Recordable Cases |           |       | Extent and Outcome of Injury and Illness |                          |                                     |                               |                                       |                                       | Incidence Rates |                                      |                                       |
|------------|-----------------------------|---------------------------|------------------|-----------|-------|------------------------------------------|--------------------------|-------------------------------------|-------------------------------|---------------------------------------|---------------------------------------|-----------------|--------------------------------------|---------------------------------------|
|            |                             |                           | Injuries         | Illnesses | Total | Fatalities                               | Lost Workday Cases       |                                     |                               |                                       | Non-Fatal Cases Without Lost Workdays | Total Cases     | Fatal plus Days Away From Work Cases | Lost Work Days -- Days Away From Work |
|            |                             |                           |                  |           |       |                                          | Total Lost Workday Cases | Cases Involving Days Away From Work | Number of Days Away From Work | Number of Days of Restricted Activity |                                       |                 |                                      |                                       |

### All Functions

|       |         |         |       |     |       |   |       |       |        |        |       |       |       |          |                              |
|-------|---------|---------|-------|-----|-------|---|-------|-------|--------|--------|-------|-------|-------|----------|------------------------------|
| Total | 231,332 | 470,201 | 4,292 | 285 | 4,577 | 5 | 2,254 | 1,114 | 20,526 | 21,609 | 2,318 | 1.95  | 0.48  | 8.73     |                              |
| 93    | 47      | 91      | 2     | 0   | 2     | 0 | 1     | 1     | 6      | 0      | 1     | 4.40  | 2.20  | 13.19    | i,o                          |
| 99    | 18,112  | 37,289  | 150   | 27  | 177   | 0 | 86    | 23    | 965    | 1,027  | 91    | 0.95  | 0.12  | 5.18     | a,b,c,d,e,f,g,i,m,o          |
| 106   | 19,913  | 41,419  | 255   | 21  | 276   | 0 | 124   | 43    | 629    | 1,979  | 152   | 1.33  | 0.21  | 3.04     | (ab),e,f,(gh),i,(kl),o       |
| 109   | 13,416  | 28,199  | 216   | 21  | 237   | 0 | 105   | 77    | 1,696  | 554    | 132   | 1.68  | 0.55  | 12.03    | (ab),b,c,f,g,(gh),h,(ij),m,o |
| 118   | 23      | 39      | 1     | 0   | 1     | 0 | 1     | 0     | 0      | 14     | 0     | 5.13  | 0.00  | 0.00     | i,o                          |
| 126   | 744     | 1,475   | 10    | 3   | 13    | 0 | 4     | 4     | 69     | 0      | 9     | 1.76  | 0.54  | 9.36     | i                            |
| 139   | 758     | 1,924   | 38    | 3   | 41    | 1 | 22    | 5     | 199    | 788    | 18    | 4.26  | 0.62  | 20.69    | f                            |
| 233   | 889     | 1,789   | 10    | 2   | 12    | 0 | 5     | 5     | 203    | 194    | 7     | 1.34  | 0.56  | 22.69    | i                            |
| 239   | 465     | 934     | 3     | 0   | 3     | 0 | 1     | 1     | 26     | 5      | 2     | 0.64  | 0.21  | 5.57     | i                            |
| 242   | 9       | 19      | 0     | 0   | 0     | 0 | 0     | 0     | 0      | 0      | 0     | 0.00  | 0.00  | 0.00     | i                            |
| 260   | 55      | 106     | 2     | 0   | 2     | 0 | 1     | 0     | 0      | 22     | 1     | 3.77  | 0.00  | 0.00     | i                            |
| 261   | 32      | 67      | 0     | 0   | 0     | 0 | 0     | 0     | 0      | 0      | 0     | 0.00  | 0.00  | 0.00     | i                            |
| 10001 | 3,644   | 7,917   | 69    | 6   | 75    | 0 | 39    | 7     | 147    | 1,051  | 36    | 1.89  | 0.18  | 3.71     | (ab),e,f,g,i,o               |
| 10014 | 28      | 56      | 0     | 0   | 0     | 0 | 0     | 0     | 0      | 0      | 0     | 0.00  | 0.00  | 0.00     | i                            |
| 10015 | 69      | 138     | 1     | 0   | 1     | 0 | 0     | 0     | 0      | 0      | 1     | 1.45  | 0.00  | 0.00     | i                            |
| 10092 | 8       | 16      | 0     | 0   | 0     | 0 | 0     | 0     | 0      | 0      | 0     | 0.00  | 0.00  | 0.00     | b,o                          |
| 10203 | 5       | 10      | 0     | 0   | 0     | 0 | 0     | 0     | 0      | 0      | 0     | 0.00  | 0.00  | 0.00     | a                            |
| 10204 | 49      | 4       | 1     | 0   | 1     | 0 | 1     | 1     | 189    | 0      | 0     | 50.00 | 50.00 | 9,450.00 | d                            |
| 10403 | 12      | 28      | 0     | 0   | 0     | 0 | 0     | 0     | 0      | 0      | 0     | 0.00  | 0.00  | 0.00     | i                            |
| 10420 | 21,007  | 42,388  | 379   | 8   | 387   | 0 | 185   | 96    | 1,602  | 1,847  | 202   | 1.83  | 0.45  | 7.56     | (ab),d,e,f,g,h,(ij),(kl),m,o |
| 10421 | 3,909   | 9,529   | 46    | 1   | 47    | 0 | 19    | 19    | 331    | 0      | 28    | 0.99  | 0.40  | 6.95     | f,g,h,i,n                    |

# U.S. Occupational Injuries and Illnesses for 1997

## Covering Petroleum and Petrochemical Operations of Reporting Companies

a - Exploration  
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(ab) - Exploration & Production - Not Sep.  
c - Gas Processing

d - Drilling  
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h - Marketing - Retail  
(gh) - Marketing - Not Sep.  
i - Pipeline - Liquid  
j - Pipeline - Gas

(ij) - Pipeline - Not Sep.  
k - Marine - Tanker  
l - Marine - Inland  
(kl) - Marine - Not Sep.

m - Research & Development  
n - General Services  
o - Admin., Engineering, & Other

| Company ID | Average Number of Employees | Hours Worked in Thousands | Recordable Cases |           |       | Extent and Outcome of Injury and Illness |                          |                                     |                               |                                       |                                       | Incidence Rates |                                      |                                       |
|------------|-----------------------------|---------------------------|------------------|-----------|-------|------------------------------------------|--------------------------|-------------------------------------|-------------------------------|---------------------------------------|---------------------------------------|-----------------|--------------------------------------|---------------------------------------|
|            |                             |                           | Injuries         | Illnesses | Total | Fatalities                               | Lost Workday Cases       |                                     |                               |                                       | Non-Fatal Cases Without Lost Workdays | Total Cases     | Fatal plus Days Away From Work Cases | Lost Work Days -- Days Away From Work |
|            |                             |                           |                  |           |       |                                          | Total Lost Workday Cases | Cases Involving Days Away From Work | Number of Days Away From Work | Number of Days of Restricted Activity |                                       |                 |                                      |                                       |

### All Functions

|       |         |         |       |     |       |   |       |       |        |        |       |       |      |        |                            |
|-------|---------|---------|-------|-----|-------|---|-------|-------|--------|--------|-------|-------|------|--------|----------------------------|
| Total | 231,332 | 470,201 | 4,292 | 285 | 4,577 | 5 | 2,254 | 1,114 | 20,526 | 21,609 | 2,318 | 1.95  | 0.48 | 8.73   |                            |
| 10514 | 3       | 6       | 0     | 0   | 0     | 0 | 0     | 0     | 0      | 0      | 0     | 0.00  | 0.00 | 0.00   | b,o                        |
| 10532 | 57      | 85      | 0     | 0   | 0     | 0 | 0     | 0     | 0      | 0      | 0     | 0.00  | 0.00 | 0.00   | i                          |
| 10544 | 63      | 117     | 0     | 0   | 0     | 0 | 0     | 0     | 0      | 0      | 0     | 0.00  | 0.00 | 0.00   | i                          |
| 10546 | 99      | 211     | 4     | 0   | 4     | 0 | 2     | 2     | 3      | 0      | 2     | 3.79  | 1.90 | 2.84   | f                          |
| 10560 | 29      | 53      | 2     | 0   | 2     | 0 | 0     | 0     | 0      | 0      | 2     | 7.55  | 0.00 | 0.00   | (ab),o                     |
| 10570 | 124     | 249     | 1     | 0   | 1     | 0 | 0     | 0     | 0      | 0      | 1     | 0.80  | 0.00 | 0.00   | i                          |
| 10573 | 1,924   | 3,695   | 11    | 0   | 11    | 0 | 2     | 2     | 38     | 0      | 9     | 0.60  | 0.11 | 2.06   | (ab),c,(ij),o              |
| 10575 | 554     | 1,103   | 20    | 4   | 24    | 0 | 12    | 7     | 72     | 179    | 12    | 4.35  | 1.27 | 13.06  | f,i                        |
| 10586 | 3,715   | 7,429   | 101   | 0   | 101   | 0 | 64    | 38    | na     | na     | 37    | 2.72  | 1.02 | na     | (ab),f,(gh)                |
| 10620 | 551     | 1,185   | 1     | 0   | 1     | 0 | 0     | 0     | 0      | 0      | 1     | 0.17  | 0.00 | 0.00   | c,i,o                      |
| 10621 | 140     | 270     | 8     | 0   | 8     | 0 | 4     | 2     | 22     | 84     | 4     | 5.93  | 1.48 | 16.30  | i                          |
| 10622 | 457     | 947     | 8     | 0   | 8     | 0 | 4     | 3     | 44     | 3      | 4     | 1.69  | 0.63 | 9.29   | c,(gh),i,o                 |
| 10626 | 1,348   | 3,202   | 34    | 4   | 38    | 0 | 26    | 20    | 194    | 619    | 12    | 2.37  | 1.25 | 12.12  | f                          |
| 10636 | 99      | 197     | 5     | 0   | 5     | 0 | 2     | 1     | 5      | 19     | 3     | 5.08  | 1.02 | 5.08   | a,b,c,o                    |
| 10650 | 45      | 85      | 4     | 0   | 4     | 0 | 1     | 1     | 2      | 0      | 3     | 9.41  | 2.35 | 4.71   | f                          |
| 10651 | 25      | 46      | 3     | 0   | 3     | 0 | 1     | 1     | 112    | 0      | 2     | 13.04 | 4.35 | 486.96 | f                          |
| 10652 | 6       | 13      | 0     | 0   | 0     | 0 | 0     | 0     | 0      | 0      | 0     | 0.00  | 0.00 | 0.00   | l                          |
| 10703 | 16      | 37      | 0     | 0   | 0     | 0 | 0     | 0     | 0      | 0      | 0     | 0.00  | 0.00 | 0.00   | i                          |
| 10710 | 160     | 360     | 6     | 0   | 6     | 0 | 4     | 1     | 2      | 63     | 2     | 3.33  | 0.56 | 1.11   | f                          |
| 10712 | 13      | 31      | 0     | 0   | 0     | 0 | 0     | 0     | 0      | 0      | 0     | 0.00  | 0.00 | 0.00   | b,(ij),o                   |
| 10713 | 466     | 966     | 3     | 0   | 3     | 0 | 3     | 2     | 6      | 5      | 0     | 0.62  | 0.41 | 1.24   | a,(ab),b,d,(gh),(ij),j,m,o |

# U.S. Occupational Injuries and Illnesses for 1997

## Covering Petroleum and Petrochemical Operations of Reporting Companies

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(ab) - Exploration & Production - Not Sep.  
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d - Drilling  
e - Petrochemical Manufacturing  
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i - Pipeline - Liquid  
j - Pipeline - Gas

(ij) - Pipeline - Not Sep.  
k - Marine - Tanker  
l - Marine - Inland  
(kl) - Marine - Not Sep.

m - Research & Development  
n - General Services  
o - Admin., Engineering, & Other

| Company ID | Average Number of Employees | Hours Worked in Thousands | Recordable Cases |           |       | Extent and Outcome of Injury and Illness |                          |                                     |                               |                                       |                                       | Incidence Rates |                                      |                                       |
|------------|-----------------------------|---------------------------|------------------|-----------|-------|------------------------------------------|--------------------------|-------------------------------------|-------------------------------|---------------------------------------|---------------------------------------|-----------------|--------------------------------------|---------------------------------------|
|            |                             |                           | Injuries         | Illnesses | Total | Fatalities                               | Lost Workday Cases       |                                     |                               |                                       | Non-Fatal Cases Without Lost Workdays | Total Cases     | Fatal plus Days Away From Work Cases | Lost Work Days -- Days Away From Work |
|            |                             |                           |                  |           |       |                                          | Total Lost Workday Cases | Cases Involving Days Away From Work | Number of Days Away From Work | Number of Days of Restricted Activity |                                       |                 |                                      |                                       |

### All Functions

|              |                |                |              |            |              |          |              |              |               |               |              |             |             |             |          |
|--------------|----------------|----------------|--------------|------------|--------------|----------|--------------|--------------|---------------|---------------|--------------|-------------|-------------|-------------|----------|
| <i>Total</i> | <i>231,332</i> | <i>470,201</i> | <i>4,292</i> | <i>285</i> | <i>4,577</i> | <i>5</i> | <i>2,254</i> | <i>1,114</i> | <i>20,526</i> | <i>21,609</i> | <i>2,318</i> | <i>1.95</i> | <i>0.48</i> | <i>8.73</i> |          |
| 10714        | 516            | 1,141          | 7            | 0          | 7            | 0        | 1            | 1            | 56            | 0             | 6            | 1.23        | 0.18        | 9.82        | i        |
| 10716        | 258            | 557            | 12           | 1          | 13           | 0        | 2            | 2            | 47            | 58            | 11           | 4.67        | 0.72        | 16.88       | f        |
| 20016        | 275            | 584            | 4            | 0          | 4            | 0        | 2            | 0            | 0             | 22            | 2            | 1.37        | 0.00        | 0.00        | b        |
| 20029        | 405            | 939            | 51           | 1          | 52           | 0        | 21           | 21           | 508           | 271           | 31           | 11.08       | 4.47        | 108.20      | f,g,h,i  |
| 20032        | 50             | 102            | 3            | 0          | 3            | 0        | 2            | 2            | 16            | 0             | 1            | 5.88        | 3.92        | 31.37       | (ab) -   |
| 20037        | 6              | 14             | 0            | 0          | 0            | 0        | 0            | 0            | 0             | 0             | 0            | 0.00        | 0.00        | 0.00        | i        |
| 20038        | 1,149          | 2,436          | 27           | 2          | 29           | 0        | 4            | 4            | 66            | 6             | 25           | 2.38        | 0.33        | 5.42        | (ab)     |
| 20050        | 2              | 6              | 0            | 0          | 0            | 0        | 0            | 0            | 0             | 0             | 0            | 0.00        | 0.00        | 0.00        | i        |
| 20111        | 3              | 15             | 4            | 0          | 4            | 0        | 4            | 4            | 109           | 35            | 0            | 53.33       | 53.33       | 1,453.33    | i        |
| 20124        | 140            | 275            | 0            | 0          | 0            | 0        | 0            | 0            | 0             | 0             | 0            | 0.00        | 0.00        | 0.00        | (ab),d,o |
| 30101        | 47             | 105            | 1            | 0          | 1            | 0        | 1            | 1            | 9             | 10            | 0            | 1.90        | 1.90        | 17.14       | i        |
| 30103        | 2              | 4              | 0            | 0          | 0            | 0        | 0            | 0            | 0             | 0             | 0            | 0.00        | 0.00        | 0.00        | b        |
| 30111        | 184            | 405            | 14           | 1          | 15           | 0        | 8            | 8            | 204           | 105           | 7            | 7.41        | 3.95        | 100.74      | f        |
| 90001        | 125            | 310            | 4            | 0          | 4            | 0        | 0            | 0            | 0             | 0             | 4            | 2.58        | 0           | 0           | i        |
| 90013        | 134            | 293            | 6            | 0          | 6            | 0        | 1            | 1            | 62            | 0             | 5            | 4.10        | 0.68        | 42.32       | i        |
| 90024        | 647            | 1245           | 6            | 3          | 9            | 0        | 4            | 2            | 8             | 70            | 5            | 1.45        | 0.32        | 1.29        | (ij)     |
| 90065        | 438            | 789            | 4            | 0          | 4            | 0        | 1            | 0            | 0             | 3             | 3            | 1.01        | 0.00        | 0.00        | i        |
| 90099        | 704            | 1396           | 3            | 0          | 3            | 0        | 1            | 1            | 2             | 0             | 2            | 0.43        | 0.14        | 0.29        | i        |
| 90106        | 913            | 1899           | 7            | 1          | 8            | 0        | 2            | 2            | 76            | 0             | 6            | 0.84        | 0.21        | 8.00        | i        |
| 90421        | 53             | 156            | 0            | 0          | 0            | 0        | 0            | 0            | 0             | 0             | 0            | 0.00        | 0.00        | 0.00        | i        |
| 93421        | 30             | 67             | 0            | 0          | 0            | 0        | 0            | 0            | 0             | 0             | 0            | 0.00        | 0.00        | 0.00        | i        |

# U.S. Occupational Injuries and Illnesses for 1997

## Covering Petroleum and Petrochemical Operations of Reporting Companies

a - Exploration  
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k - Marine - Tanker  
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(kl) - Marine - Not Sep.

m - Research & Development  
n - General Services  
o - Admin., Engineering, & Other

| Company ID | Average Number of Employees | Hours Worked in Thousands | Recordable Cases |           |       | Extent and Outcome of Injury and Illness |                          |                                     |                               |                                       |                                       | Incidence Rates |                                      |                                       |
|------------|-----------------------------|---------------------------|------------------|-----------|-------|------------------------------------------|--------------------------|-------------------------------------|-------------------------------|---------------------------------------|---------------------------------------|-----------------|--------------------------------------|---------------------------------------|
|            |                             |                           | Injuries         | Illnesses | Total | Fatalities                               | Lost Workday Cases       |                                     |                               |                                       | Non-Fatal Cases Without Lost Workdays | Total Cases     | Fatal plus Days Away From Work Cases | Lost Work Days -- Days Away From Work |
|            |                             |                           |                  |           |       |                                          | Total Lost Workday Cases | Cases Involving Days Away From Work | Number of Days Away From Work | Number of Days of Restricted Activity |                                       |                 |                                      |                                       |

### All Functions

|              |         |         |       |     |       |   |       |       |        |        |       |      |      |      |
|--------------|---------|---------|-------|-----|-------|---|-------|-------|--------|--------|-------|------|------|------|
| <i>Total</i> | 231,332 | 470,201 | 4,292 | 285 | 4,577 | 5 | 2,254 | 1,114 | 20,526 | 21,609 | 2,318 | 1.95 | 0.48 | 8.73 |
| 99421        | 23      | 50      | 0     | 0   | 0     | 0 | 0     | 0     | 0      | 0      | 0     | 0.00 | 0.00 | 0.00 |

i