energy *API*

Survey of Occupational Injuries, Illnesses, and Fatalities in the Petroleum Industry

Guidelines and Definitions

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Introduction

The purpose of the Survey of Occupational Injuries, Illnesses, and Fatalities in the Petroleum Industry 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
4) Non-U.S. contractors

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

The forms for each worker type contain both required and optional data entry fields.
Note: Pipeline Awards submissions have different requirements

- The required fields are:
  - Total Hours Worked (Thousands)
  - Deaths
  - Days Away from Work
  - Job Transfer or Restriction (PIPELINE AWARDS)
  - Total OSHA Recordable Cases

- The optional fields are:
  - Job Transfer or Restriction (all other submissions)
  - All Injury Cases
  - All Illness Cases

I. Guidelines and Data Elements Common to All Forms

Use Consistent Definitions

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

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

Each company's submission should cover all its petroleum operations. All 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.

OSHA regulation [29 CFR 1904]

You must submit all 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 – OSHA regulation [29 CFR 1904] is not applicable for OII submissions to API.

Function Definitions Supersede NAICS Categories

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

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

Report Data Only for Petroleum Related Functions

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

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

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

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

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

- Joint ventures, where your company is not the operator

- Offsite construction sites, fabrication shops, design and engineering firms unless your company has operational control

- Marine crude and product transport, work boats and supply vessels

- Aviation services, including helicopter and fixed wing transport

- Public road transportation, bus, van, and automobile

- 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.
Total Hours Worked in thousands (Required field)	Actual hours worked are to be divided by 1000 and rounded to the nearest thousand hours. NOTE: Based on historical data, API has determined that 1900-2200 hours per employee per year is a reasonable range for the Hours Worked.
Cases of Death (Required field)	Work-related injury or illness that results in an employee's death
Days Away from Work (Required field)	Nonfatal **cases** that result in the employee being away from work for at least one scheduled workday **after** the day of the injury or illness.
Cases of Job Transfer or Restriction (Optional field – Except Pipeline Awards)	Nonfatal **cases** 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 care professional.

Appendix A: Company Functions

Summary of Function Categories

A. UPSTREAM	
Offshore Exploration and Production	
• Exploration	
• Production	
• Drilling	
• Not separated	Provided for companies that cannot separate the subcategories
Onshore Exploration and Production	
• Exploration	
• Production	
• Drilling	
• Not separated	Provided for companies that cannot separate the subcategories
Gas Processing	
Upstream Support Services	
B. DOWNSTREAM	
Marketing-Wholesale	Includes all oil products marketing <u>except</u> for service station and credit card accounting operations.
Marketing-Retail	Restricted to service station and other retail store operations and employees
Marketing-Not Separated	Provided for companies that cannot separate Marketing-Wholesale and Marketing-Retail data
Refining	
Lubricants/Specialties	
Downstream Support Services	
Trucking	
C. PIPELINE	
Pipeline-Liquid	Explicitly includes trucks operated by pipeline function.
Pipeline-Gas	
Pipeline-Not separated	Provided for companies that cannot separate Pipeline-Liquid and Pipeline-Gas data
Trucking	
D. MARINE	
E. RESEARCH AND DEVELOPMENT	
F. SUPPORT SERVICES[1]	Includes services not covered by one of the operating functions. Also includes credit card operations.

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

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

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.

Function Definitions

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

- **Exploration** (Part of SIC NAICS 211111) – Geophysical, seismographic, and geological operations including their administrative and engineering aspects; these can be onshore or offshore, and include transportation of such personnel or equipment to and from a site.

- **Production** (Part of NAICS 211111) – Petroleum and natural gas producing operations including maintenance and servicing of production properties; these can include transportation to and from a site and can be offshore or onshore.

- **Drilling** (Part of NAICS 213111) – Hands-on operation of drilling rigs, including transportation of the equipment to and from the drill site, rigging up, drilling operations, and dismantling the equipment. Company employees working on contractor rigs, either onshore or offshore should be reported on Company Employees forms (Form 1 or Form 3). Contractor workers should be reported on the Contract Workers forms (Form 2 and Form 4).

- **Gas Processing** (NAICS 211112) – Processing of natural gas to produce liquid products such as ethane, liquefied petroleum gases, and natural gasoline.

- **Marketing-Wholesale** (NAICS 42471) – Petroleum bulk stations and terminals; Bulk distribution of petroleum products to retail or wholesale outlets, including truck and transport deliveries; Bulk distribution of tires, batteries, accessories and other products sold at service stations. Operations at product terminals or wholesaling establishments; Administrative, marketing, and sales activities that are integral to marketing-wholesale are included; Credit card operations or petrochemical marketing/sales/distribution are <u>not</u> included here; they are included in the Support Services category.

- **Marketing-Retail** (NAICS 44711) – Primarily on-site retail service station and associated convenience store operations. This includes driveway sales, road service operations, car wash services, vehicle repair work, and sales of miscellaneous merchandise. Field or district personnel who supervise these stations should be reported under the Marketing-Wholesale category, as should other marketing administrative services.

- **Marketing-Not-Separated** (NAICS 42471 and 44711) – this category is provided for companies that cannot report Marketing-Wholesale and Marketing-Retail data separately.

- **Refining** (NAICS 324110) – Refining of crude oil to produce gasoline, kerosene, distillate fuel oils, residual fuel oils, lubricants, and other products from crude petroleum. Manufacturing and processing of petrochemicals where such processing is an integral part of refining operations and is under the same functional management is also included.

- **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.

- **Pipeline-Liquid** (NAICS 486110 and 486910) – Gathering system and trunk line operations for crude oil; Transportation via pipeline of refined and semi-refined products; Pipeline station operations

- **Pipeline-Gas** (NAICS 486210) – Gas gathering and trunk line operations of natural gas transmission lines up to the point of retail distribution.

- **Pipeline-Not Separated** (NAICS 486110, 486910, and 486210) – this category is provided for companies that cannot report Pipeline-Liquid and Pipeline-Gas data separately.

- **Trucking** – Operations associated with the use of trucks to transport crude oil between functions (such as a pipeline function without a physical pipeline). If the trucks are an integral part of another function, they should be covered with that function.

- **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.

<u>Personnel</u>: 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.

- **Support Services** (NAICS N/A)[2] – 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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[2] Except for credit card accounting operations, this category is provided to account for support functions and facilities not attached to one of the more specific categories). Support staff and facilities within a function are included with that function.

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Appendix B: Contractor Exposure Hours

This section provides guidance on estimating contract worker exposure hours. This information is not a mandatory requirement for API reporting purposes — it is intended to provide 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.

The preferred method is to report actual hours tracked through the company's human resources department. However, API is aware that this data is not available to all companies.

Below are three methods that may be used to estimate contract worker exposure hours. Please note that the third method was developed for hazardous liquid pipeline operators applying for the API Pipeline Safety Award.

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

1. Activity Basis:

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

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

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

2. Financial Basis:

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

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

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

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

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.

Industry 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/hour to determine the total number of contractor hours attributable to that activity. For example:

Example: Company "A" has a geophysical budget of $6 million for the reporting year. The estimated contract 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 Awards

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

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

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

Or simply divide total contractor spend by 80; for example, if total annual contractor spend was $6,000,000
- ($6,000,000/80) = 75,000 contract worker hours