Data Dictionary

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| **Variable** | **Datatype** | **Description** |
| REPORT\_NUMBER | Categorical | Report ID |
| SUPPLEMENTAL\_NUMBER | Categorical | Supplemental ID |
| IYEAR | Continuous | Year Accident Occurred |
| LOCAL\_DATETIME | Continuous | Date and time of Accident |
| OPERATOR\_ID | Categorical | Operator’s Issued No. |
| NAME | Categorical | Operator Name |
| PIPE\_FAC\_NAME | Categorical | Pipe Facility Name |
| ON\_OFF\_SHORE | Categorical | Whether the accident happened onshore or offshore |
| ONSHORE\_STATE\_ABBREVIATION | Categorical | US State that Accident Occurred in |
| ONSHORE\_CITY\_NAME | Categorical | US City that Accident Occurred in |
| ONSHORE\_COUNTY\_NAME | Categorical | US County that Accident Occurred in |
| LOCATION\_LATITUDE | Continuous | Latitude coordinate for where the incident occurred |
| LOCATION\_LONGITUDE | Continuous | Longitude coordinate for where the incident occurred |
| LOCATION\_TYPE | Categorical | Type of Accident Location |
| INCIDENT\_AREA\_TYPE | Categorical | Type of Accident Area |
| INCIDENT\_AREA\_SUBTYPE | Categorical | Subtype of Accident Area |
| DEPTH\_OF\_COVER | Categorical | Depth of Pipeline for Underground Incidents |
| SYSTEM\_PART\_INVOLVED | Categorical | Part of system involved in Accident |
| COULD\_BE\_HCA | Categorical | Whether a Potential Accident could reach a High Consequence Area |
| COMMODITY\_REACHED\_HCA | Categorical | Whether the Actual Accident reached a High Consequence Area |
| CAUSE | Categorical | Type of Cause |
| CAUSE\_DETAILS | Categorical | Subtype of Cause |
| COMMODITY\_RELEASED\_TYPE | Categorical | Type of Commodity Released |
| COMMODITY\_SUBTYPE | Categorical | Subtype of Commodity Released |
| COMMODITY\_DETAILS | Categorical | Other Type of Commodity Released |
| UNINTENTIONAL\_RELEASE\_BBLS | Continuous | Amount of Commodity Released Unintentionally |
| INTENTIONAL\_RELEASE\_BBLS | Continuous | Amount of Commodity Released Intentionally |
| RECOVERED\_BBLS | Continuous | Amount of Released Commodity Recovered |
| PIPE\_DIAMETER | Continuous | Nominal Pipe Size |
| PIPE\_WALL\_THICKNESS | Continuous | Wall thickness of Pipe (in) |
| PIPE\_SMYS | Continuous | Specified Minimum Yield Strength of pipe (psi) |
| PIPE\_SPECIFICATION | Categorical | Pipe specifications (material composition etc.) |
| INSTALLATION\_YEAR | Continuous | Year item involved in Accident was installed |
| MATERIAL\_INVOLVED | Categorical | Type of Material involved in Accident |
| MATERIAL\_DETAILS | Categorical | Other type of Material involved in Accident not in options given |
| RELEASE\_TYPE | Categorical | Type of Accident involved (Leak, Puncture etc.) |
| IGNITE\_IND | Categorical | Whether Ignition Occurred |
| EXPLODE\_IND | Categorical | Whether Explosion Occurred |
| SHUTDOWN\_DUE\_ACCIDENT\_IND | Categorical | Whether facilities were shut down due to accident |
| SHUTDOWN\_DATETIME | Continuous | Date and Time of shutdown |
| STILL\_SHUTDOWN\_IND | Categorical | Whether facilities are still shutdown as of time of report |
| RESTART\_DATETIME | Continuous | Date and Time of end of shutdown |
| NUM\_PUB\_EVACUATED | Continuous | Number of general public evacuated |
| INJURY\_IND | Categorical | Whether people were injured due to accident |
| NUM\_EMP\_INJURIES | Continuous | Number of employees injured |
| NUM\_CONTR\_INJURIES | Continuous | Number of contractors injured |
| NUM\_ER\_INJURIES | Continuous | Number of emergency responders injured |
| NUM\_WORKER\_INJURIES | Continuous | Number of workers (not associated with operators) injured |
| NUM\_GP\_INJURIES | Continuous | Number of general public injured |
| INJURE | Continuous | Total Number of injured people |
| FATALITY\_IND | Categorical | Whether people were dead due to accident |
| NUM\_EMP\_FATALITIES | Continuous | Number of employees killed |
| NUM\_CONTR\_FATALITIES | Continuous | Number of contractors killed |
| NUM\_ER\_FATALITIES | Continuous | Number of emergency responders killed |
| NUM\_WORKER\_FATALITIES | Continuous | Number of workers (not associated with operators) killed |
| NUM\_GP\_FATALITIES | Continuous | Number of general public killed |
| FATAL | Continuous | Total Number of fatalities due to accident |
| WILDLIFE\_IMPACT\_IND | Categorical | Whether accident impacted wildlife |
| FISH\_AQUATIC\_IMPACT\_IND | Categorical | Whether accident impacted aquatic wildlife |
| BIRDS\_IMPACT\_IND | Categorical | Whether accident impacted avian wildlife |
| TERRESTRIAL\_IMPACT\_IND | Categorical | Whether accident impacted terrestrial wildlife |
| SOIL\_CONTAMINATION | Categorical | Whether soil contamination occurred |
| LONG\_TERM\_ASSESSMENT | Categorical | Whether long term impact assessment was performed or planned |
| REMEDIATION\_IND | Categorical | Whether environmental remediation is expected to be required |
| SURFACE\_WATER\_REMED\_IND | Categorical | Whether environmental remediation is required for affected surface water bodies |
| GROUNDWATER\_REMED\_IND | Categorical | Whether environmental remediation is required for affected groundwater |
| SOIL\_REMED\_IND | Categorical | Whether environmental remediation is required for affected soil |
| VEGETATION\_REMED\_IND | Categorical | Whether environmental remediation is required for affected vegetation |
| WILDLIFE\_REMED\_IND | Categorical | Whether environmental remediation is required for affected wildlife |
| WATER\_CONTAM\_IND | Categorical | Whether water was contaminated |
| OCEAN\_SEAWATER\_IND | Categorical | Whether ocean water was contaminated |
| SURFACE\_CONTAM\_IND | Categorical | Whether surface water was contaminated |
| GROUNDWATER\_CONTAM\_IND | Categorical | Whether groundwater was contaminated |
| DRINKING\_WATER\_CONTAM\_IND | Categorical | Whether drinking water was contaminated |
| PRIVATE\_WELL\_CONTAM\_IND | Categorical | Whether private wells were contaminated |
| PUBLIC\_WATER\_CONTAM\_IND | Categorical | Whether public water sources were contaminated |
| EST\_COST\_OPER\_PAID | Continuous | Estimated cost of public and non-Operator private property damage |
| EST\_COST\_GAS\_RELEASED | Continuous | Estimated cost of commodity lost |
| EST\_COST\_PROP\_DAMAGE | Continuous | Estimated cost of Operator’s property damage & repairs |
| EST\_COST\_EMERGENCY | Continuous | Estimated cost of emergency response |
| EST\_COST\_ENVIRONMENTAL | Continuous | Estimated cost of environmental remediation |
| EST\_COST\_OTHER | Continuous | Estimated other costs |
| INCIDENT\_IDENTIFIED\_DATETIME | Continuous | Local time Operator identified failure |
| ON\_SITE\_DATETIME | Continuous | Local time Operator responders arrived on site |

Data Source

Oil Facility Accidents, 2010-Present [Kaggle]

<https://www.kaggle.com/datasets/energysafetystat/oil-facility-accidents-2010-present/>