



Pacific States/British Columbia Oil Spill Task Force Data Dictionary

Revised 2012

The U.S. members of the Pacific States/British Columbia Oil Spill Task Force signed an agreement in 1997 to incorporate the terms and logic framework of this Data Dictionary into their agency databases. They also agreed that their agencies would send staff to investigator training sessions in order to ensure consistent application of the data terms and would submit data to the Task Force for compilation into a regional database. Since 2003, our Annual Reports have included a compilation and analysis of regional data from the prior year; these are available on the Task Force website. Our ongoing goal is continuous improvement of this database in order to provide information on spill trends and causal factors; this allows us to better target our spill prevention efforts. The Database Workgroup is chaired by Camille Stevens of the Alaska Department of Environmental Conservation; Camille also compiles the information supplied by other member agencies and produces the final graphics for each Annual Report after Workgroup review. Workgroup members include Cathy Conway, Adrian Chatigny and Damon Williams of the California Office of Spill Prevention and Response; Mike Zollitsch of the Oregon Department of Environmental Quality; Marcia Graf and Curtis Martin of the Hawaii Office of Hazard Evaluation and Emergency Response; and Jack Barfield of the Washington Department of Ecology. The British Columbia Ministry of Environment monitors the project, is developing a spill database and plans to join the Task Force project as soon as possible. The Data Project Workgroup collaborated in 2010 to revise and update the Data Dictionary based on their experience with its use. This revised Data Dictionary updates definitions, adds new terms, and deletes others.

Date of the Incident	Format mm/dd/yyyy	
Time of the Incident	Free text	24-hour clock format
Medium	Land	Spill that impacts the land and/or ground water, but not surface water
	Marine	Spill that impacts surface water or wetlands under the jurisdiction of the U.S. (or Canadian Coast Guard) as Federal On-Scene Coordinator
	Fresh Water	Spill that impacts surface water or wetlands under the jurisdiction of the U.S. Environmental Protection Agency (or Environment Canada) as Federal On-Scene Coordinator
	Impermeable Surface	Spill that has the potential to impact one of the media described above, but does not because it is contained within an impermeable surface from which 100% of the spill volume can be recovered
Location Name	County (U.S.) or District (Canada)	Self-explanatory
	City/Town	Self-explanatory
	Water Body	Affected water body (river, stream, bay, strait, etc.)
	Lat/Long	Preferred entry: separate fields for Lat & Long, decimal degrees to 5 places
Incident Type (all Source Types)		Note: Near Misses and incidents not leading to spills are not described
	Spill (without precursor incident)	Release of oil to a cited medium without being caused by a secondary incident; normally due to Human Error or Organizational/ Management Failure
	Fire/explosion	Uncontrolled ignition of gas or liquid
	Fitness for service	Unable to safely perform its function without repairs
Incident Type (Source Type: Vessel)	Grounding	Vessel striking the waterway bottom with enough force to damage the vessel and cause the release of oil
	Collision	Vessels striking each other resulting in the release of oil
	Allision	Vessel striking a fixed or semi-fixed object such as a pier, bridge, an anchored vessel, or buoy, resulting in the release of oil
	Loss of vessel	Partial or complete sinking of a vessel, resulting in the release of oil, in which the vessel is lost
	Flooding	Water intrusion into areas on a vessel not intended to hold water, or spill of oil during the dewatering process following flooding
Incident Type (Source Type: Vehicle)	Other Accident (vehicular)	Vehicles striking each other or a fixed object, or some other type of traffic accident
	Train derailment	Self-explanatory

Source Type		
	Vessel	Any boat, ship, vessel, barge, or other floating craft of any kind
	Facility	Any structure, group of structures, property, equipment, or device, other than a vessel or vehicle, that is used in producing, storing, handling, transferring, processing, or transporting oil in bulk for commercial or governmental purposes
	Vehicle	An aircraft or rolling stock (truck, train, etc) having the potential to cause an oil spill due to improper operation or an accident
	Pipeline	A pipeline which transports petroleum products, including as common carrier (i.e., for oil not owned by the pipeline company). Includes line pipe, valves, assemblies, controls and pump stations
	Private Property	Same as facility definition except applies to non-commercial or non-governmental purposes
	Other	
	Unknown	
Source (Source Type Vessel)	Cargo Barge	A non-self propelled vessel designed to transport non-oil or non-chemical cargo
	Cargo Ship	A self-propelled ship in commerce, other than a tank ship, regulated by a Task Force member agency, excluding container ships or Ro-Ro ships
	Container Ship	A vessel regulated by a Task Force member agency designed to transport cargo in containers
	Ferry	A vessel regulated by a Task Force member agency carrying passengers and/or vehicles on intra-harbor or local routes
	Passenger Ship	A vessel regulated by a Task Force member agency carrying passengers for compensation, excluding ferries
	Ro-Ro Ship	A vessel regulated by a Task Force member agency designed to transport wheeled vehicles and load or discharge cargo by driving the vehicles on/off ramps
	Fishing Vessel	A vessel: (a) commercially engaged in catching, taking or harvesting fish or preparing fish or fish products; or (b) which supplies, stores, refrigerates or transports fish, fish products or materials directly related to fishing or the preparation of fish
	Tank Barge	A non-self propelled vessel designed to transport oil or chemicals in bulk
	Tank Ship	A self-propelled ship designed to transport oil or chemicals in bulk, including combination carriers actually transporting oil. Includes Integrated Tug-Barge (ITB) or Articulated Tug-Barge (ATB) vessels

Source (Source Type Vessel, continued)	Recreational Vessel	A recreational vessel such as a yacht, sailboat, or motorboat, excluding vessels commercially employed in fishing or otherwise engaged in commerce
	Public Vessel	A vessel owned or chartered and operated by a government entity that is not engaged in commercial service and is not included in one of the above categories
	Tug	A boat used to maneuver, primarily by towing or pushing other vessels in harbors, over the open sea or through rivers and canals. They are also used to tow barges or disabled ships. Does not include ITB or ATB vessels
	Hoper/Dredge	A self-propelled vessel engaged in excavating bottom sediments and/or disposing of them in a different area
	Work Boat	A small non-commerce vessel engaged in supporting construction maintenance activities on a waterway
	Other	
Source (Source Type Facility)	Marine Terminal	A facility located in or adjacent to marine waters and used for transfer of crude oil or refined petroleum products to or from tank vessels or barges
	Bulk Oil Facility	A facility which receives, stores and transfers crude oil or refined petroleum products; not a refinery
	Refinery	A facility which processes crude oil into usable fractions and refined products
	Commercial/Industrial Facility	A non-marine commercial end use consumer of bulk petroleum products
	Shipyard/Port facility	A facility located in or adjacent to marine waters not involved in oil transfer to/from tank vessels as a primary function
	Marina	A small harbor or boat basin typically providing dockage, supplies, marine fuels and other services for recreational vessels
	Retail Petroleum Outlet	Retail distributors of petroleum fuels, primarily service stations
	Power Generation Utility	Municipal power generation and distribution installations or components; includes transformers
	Municipal Facilities	Municipal or local government operated facilities such as schools, water treatment and sewage facilities, roads and streets, or other spaces used for community functions. Excludes military installations and power distribution facilities.
	Oil Exploration and Production Facilities	A platform, vessel, or other facility used to explore for crude oil or associated hydrocarbons or to produce, store, or transport them to the inlet of a pipeline system
	Aboveground storage tank (AST)	A storage tank containing oil that is NOT an underground storage tank as defined by state or provincial regulations
	Underground storage tank (UST)	Any tank or combination of tanks (including underground pipes connected thereto) containing oil which is beneath the surface of the ground as defined by state or provincial regulations
	Leaking Drum or Container	A drum, container, or tank that does not meet the definition of an UST or AST (see above) and which is normally portable. Must be leaking oil into the environment to meet the terms of this definition
	Other	A facility for which the source of the spill does not fit any of the above categories

Source (Source Type Private Property)	Residential	Property used for private residences, including single family dwellings, apartment buildings, and condominiums. Does not include hotels/motels
	Vacant Land	A parcel of land without any structure, group of structures, equipment, pipeline, or device located thereon.
	Above-ground storage tank (AST)	See definition under Source Type Facility
	Underground storage tank (UST)	See definition under Source Type Facility
	Leaking Drum or Container	A drum, container, or tank that does not meet the definition of an UST or AST (see above) and which is normally portable. Must be leaking oil into the environment to meet the terms of this definition
	Other	
Source (Source Type Vehicle)	Aircraft	Self-explanatory
	Tank Truck	Commercial motor vehicle used to transport oil in bulk
	Commercial Truck	Commercial motor vehicle used to transport or deliver non-oil cargo or packaged oil products over public roads
	Construction/utility Vehicle	A work vehicle not designed for transport, typically engaged in construction or earth-moving activity
	Train	Self-explanatory
	Non-commercial Vehicle	Any motor vehicle not licensed to engage in commerce, including government vehicles
	Other	
Source (Source Type Pipeline)	Pipeline	See Source Type
	Other	

Oil Type		For a technical definition see American Petroleum Institute or Environment Canada classifications
	Crude oil	
	Bunker C/IFO/HFO	
	Diesel oil	
	Heating oil	
	Kerosene/jet fuel	A crude oil distillate with volatility between gasoline and diesel; mainly used as jet fuel in the U.S., also used as a home heating oil in some countries
	Cutter stock	A thinner or reducer used in the refining process
	Gasoline	
	Hydraulic oil	
	Lube oil/Motor oil	A type of oil used for lubrication by various kinds of internal combustion engines, turbines, or pumps
	Aviation fuel	An aviation fuel used to power piston-engine aircraft; contains tetraethyl lead (TEL), a toxic substance used to enhance combustion stability;excludes jet fuel
	Asphalt/creosote	
	Mineral oil/ Transformer oil	A byproduct of the distillation of gasoline; a common household lubricant. Transformer oil is a highly-refined mineral oil is used in oil-filled transformers to insulate, suppress corona and arcing and to serve as a coolant
	Edible/Vegetable oil	Oils derived from plants that are composed of triglycerides; includes not only edible, but also inedible vegetable fats and oils such as linseed oil, tung oil, and castor oil, used in lubricants, paints, cosmetics, pharmaceuticals and other industrial purposes
	Waste oil	Used oil or a mixture of used oil that has not been diluted by non-oil substances. Excludes bilge waste.
	Oily water mixture	Includes bilge waste
	LNG/LPG	A highly flammable natural or petroleum gas cooled to a liquid-state temperature at atmospheric pressure. LPG is primarily propane
	Oil-based paint	A type of slow-drying paint that consists of particles of pigment suspended in a drying oil, commonly linseed oil
	Biodiesel	Methyl esters of fatty acids, used as an alternative to petroleum-derived diesel
	Ethanol	A two-carbon alcohol, usually derived from corn; must be denatured with gasoline to render it unfit for human consumption in order to be classified as a petroleum product
	Marine Gas Oil	Similar to #2 fuel oil with lower sulfur content, made only from distillates
	Decant Oil	A heavy oil recovered from the bottom of a Fluid Catalytic Cracking Unit (FCC), used as a blending material for either Utility or Bunker Fuels
	Other	
	Unknown	

Quantity Spilled	Note: Threshold for reporting is 42 gallons for all spills, measured ONLY in U.S. gallons. Oil contained in abandoned drums or containers which is <u>not spilled</u> should not be reported.	
	Total spilled	The total estimated amount of oil released/discharged
	Spilled to water	The estimated amount of oil that reached surface water or wetlands
	Spilled to impermeable surface	The estimated amount of oil contained by a surface from which 100% of the volume spilled is recoverable
	Spilled to soil	The estimated amount of oil reaching permeable surfaces not involving surface water
	Recovered	The estimated amount of oil that was recovered
	Unknown	
Activity (at time of the incident)		
	Oil transfer (cargo)	The movement of oil between a vessel or vehicle and a facility (dock, terminal, etc.), neither of which are end-users, or other vessel/vehicle, including C.O.W.
	Oil transfer (non-fuel)	Taking on or discharging lubrication, hydraulic, or other oil not used as fuel to or from an end-user
	Fueling	An oil transfer operation to replenish fuel supply used to propel a vehicle or vessel (i.e. vessel "bunkering")
	Internal transfer	The movement of oil from one tank to another within a vessel/vehicle/facility
	Not operating or not performing designed function	(1) Vessel in port, no operations in progress (2) Facility or pipeline shutdown (3) Vehicle stopped or not performing designed function (4) Private Property
	Static, or performing designed function, not to include oil transfers	(1) Vessel in port, performing designed function (2) Facility or pipeline in normal operation, or facility storing oil (3) Vehicle not underway but performing designed function
	Underway or in motion	(1) Vessel underway conducting normal operations, no oil movements in progress (oil movements include ballasting, tank washing, internal transfers) (2) Vehicle in motion conducting designed function
	Ballasting/de-ballasting	Taking on/discharging sea water or fresh water to/from vessel tanks
	Lightering	Transfer of oil as cargo between two vessels over the rail
	Tank/hold cleaning	Spill of oily residues from tank cleaning or cargo hold washing
	Bilge Pumping	The pumping of water and other materials, including oily water mixtures, which has collected in a vessel's bilge
	Maintenance/testing	An action which involves repairing, replacing or working on equipment associated with a vessel/vehicle/ facility/pipeline, including electrical, mechanical, and structural systems
	Construction	The process of building or assembling
	Other	
	Unknown	

Definitions:

Immediate Cause: The most direct factor (action, inaction, or condition) that immediately preceded and led to the incident. Only one Immediate Cause may be associated to an event.

Contributing Factors: Other (secondary) contributing factors to the incident, or those that precipitated the Immediate Cause. Multiple contributing factors may be associated to an incident.

Both Immediate Cause and Contributing Factors are chosen from the following selections:

Cause Type	Equipment Failure	A mechanical, structural, or electrical failure NOT attributable to a human-error related installation, operation, or maintenance deficiency. An example which would NOT be classified as "equipment failure" would be failure from normal wear and tear as a result of lack of maintenance
	Human Error	The inability of an individual to safely complete a task, over which nature the organization has only indirect control
	Organizational/management Failure	The failure of an organization to provide the necessary policies, procedures, equipment, personnel, supervision, training or time to safely design, operate, and maintain a system which could potentially cause a spill
	External Conditions	Natural phenomenon (see Cause entries) which occur with a magnitude outside of reasonably anticipated design or operating limits
	Other	
	Unknown	
Cause (Cause Type Equipment Failure)	Electrical failure	Failure of circuitry or power generation equipment
	Mechanical failure	Failure of a mechanical device
	Structural failure	Breach of the structural integrity of a tank or pipeline
	Electronic failure	Failure of electronic navigation or vessel control equipment, including computer hardware and/or software
	Other	

Cause (Cause Type Human Error)	Communications	Difficulties in the transfer of information (not language related); failure to understand or comply
	Language	Difficulties in the transfer of information due to language barriers
	Drugs/alcohol	Any form or level of diminished ability (physical or mental) due to the use of drugs or alcohol
	Inexperience	Inadequate technical knowledge due to a properly trained person not having enough experience to properly perform the task at hand
	Improper equipment use	Using equipment to accomplish tasks other than those for which the equipment was specifically designed
	Inaccurate computation	Mathematical error
	Inattention	Loss of attention, not paying attention; the failure to detect, attend to, or be aware of critical or significant information
	Procedural error	Unintentional deviation from or failure to follow an established procedure
	Fatigue	Weariness or exhaustion from work, other exertion, or sleep disorder that leads to diminished ability (physical or mental)
	Illness	Sickness which causes decrease in physical or mental abilities
	Judgment	Incorrect assessment, estimation, interpretation or opinion
	Sabotage/suspected illegal activity	Destruction of property or obstruction of normal operations; includes dumping
	Deliberate violation	Intentional deviation from a standard procedure because the procedure is viewed as inefficient, because of a desire to save time or effort; does not include acts of sabotage or actions with intent to do harm
	Other	Individual human error not listed above

Cause (Cause Type Organizational/ Management Failure)	Policy/procedure; lack of	Failure to have company procedures or policies
	Policy procedure; inadequate	Procedures or polices that are conflicting, ineffective, inaccurate, out-of-date, or insufficient
	Planned Maintenance Program; lack of	Failure to have company planned maintenance program
	Planned Maintenance Program; inadequate	Planned maintenance policies and procedures that are conflicting, ineffective, inaccurate, out-of-date, or insufficient
	Poor Oversight/Inadequate implementation.	Failure of management to effectively oversee subordinates; lack of involvement, inspection, communication; inadequate implementation of planned maintenance or other policies & procedures
	Lack of supervision	The failure of immediate supervisors to provide proper situational specific guidance, direction, information or instruction to operating personnel regarding a specific operation or evolution
	Insufficient personnel	Failure to ensure that all required tasks can be done with adequate personnel of the proper skill level, physical ability, mental ability, experience, or certification
	Inadequate training	Inadequate technical knowledge due to insufficient training
	Equipment design	Failure of equipment design (within the control of the responsible party) to provide for safe operations under normal operating conditions
	Manufacture/construction/ installation	Failure caused by faulty manufacture, construction, or installation (within the control of the responsible party) when operating under normal conditions
	Other	Organizational/management failure not listed above

Cause (Cause Type External Conditions)	Reduced visibility	Self-explanatory
	Rain	Self-explanatory, may limit visibility
	Snow	Self-explanatory, may limit visibility or cause loss of control
	Ice	Self-explanatory, may cause loss of control
	Lightning	Self-explanatory
	Wind	Self-explanatory
	Sea state	Storms, high waves, shoaling, severe eddies or strong currents that may affect vessel maneuverability
	Tides and currents	Cyclic variations in water depth and velocity caused by the tidal forces of the Moon and the Sun acting on the Earth. Does not include variations caused by weather patterns
	Temperature	Self-explanatory
	Landslide	Ground movement caused by gravity acting on an over steepened slope.
	Earthquake	A sudden release of stored energy in the Earth's crust related to the movements of tectonic plates.
	Other	External condition not listed above
Regulated	Yes	Regulated by the state for oil spill prevention purposes
	No	
Narrative	Free text	General description of spill and/or incident. Provide supplemental information on "Other" and "Unknown" data fields. Describe links between Incident Type, Source, Activity, Immediate Cause, and Contributing Factors. The narrative should provide a significant level of detail