Pacific States/British Columbia Oil spill Task Force Data Dictionary

Revised 2007

The U.S. members[1] of the Pacific States/British Columbia Oil Spill Task Force signed an agreement in 1997 to incorporate the terms and logic framework of a Data Dictionary developed by a Task Force project workgroup 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 also submit data to the Task Force for compilation into a regional database.

Each Task Force member agency has designated a representative to a Data Project workgroup which guided this data collection process for the last five years. They have now collaborated, under the leadership of CAPT Jack Barfield of the Washington Department of Ecology, to revise and update the Data Dictionary based on their five years' of experience with its use. This revised Data Dictionary updates definitions, adds new terms, and deletes others.

The current members of the Data Project Workgroup are as follows: Camille Stephens, Project Chair, Alaska Department of Environmental Conservation: Jack Barfield of the Washington Department of Ecology; Mike Zollitsch of the Oregon Department of Environmental Quality; Spencer Ung and Cathy Conway of the California Office of Spill Prevention and Response, and Marsha Mealey of the Hawaii Department of Health. Stafford Reid of the British Columbia Ministry of Environment monitors the project for British Columbia.

[1] The British Columbia Ministry of Environment is not currently the Provincial agency authorized to maintain spill data in British Columbia and therefore has not been able to participate in this project.

NOTE: Original Data Dictionary fields such as Reported By, RP, Investigator, Date/time of Report may be useful to states, but of no interest regionally

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 within 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 spill 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 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, 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 (that is 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 member agency, excluding container ships or Ro-Ro ships.
	Container Ship	A vessel regulated by a member agency designed to transport cargo in containers.
	Ferry	A vessel regulated by a member agency carrying passengers and/or vehicles on intra-harbor or local routes.
	Passenger Ship	A vessel regulated by a member agency carrying passengers for compensation, excluding ferries.
	Ro-Ro Ship	A vessel regulated by a 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..
	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 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.
	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 commercial end use consumer of bulk petroleum products.
	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.
	Municipal/Power Generation Utility	Municipally-operated facilities, including power generation and distribution installations or components.
	Oil Exploration and Production Facilities	A platform, vessel, or other facility used to explore for crude oil or associated hydrocarbons hydrocarbons or to produce, store, or transport them to the inlet of a pipeline system.
	Aboveground storage tank	A storage tank containing oil that is NOT an underground storage tank as defined by state or provincial regulations.
	Underground storage tank	Any one 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	See definition under Source Type Facility
	Underground storage tank	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.
	Train	Self-explanatory
	Private Vehicle	Any motor vehicle not licensed to engage in commerce.
	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 other countries.
	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	Aviation gasoline. 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; include 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.
	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 not spilled 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.
	Recovered	The estimated amount of oil that was recovered.
	Unknown	
Activity (at time of the incident)		
	Stationary/in port	Vessel or vehicle stopped for a sustained period; a facility/pipeline that is not operating, or no oil transfers in progress.
	Underway/Transiting Pipeline in Operation	Normal and controlled operations of a pipeline, vessel, or vehicle while carrying out normal operations
	Fueling	An oil transfer operation to replenish fuel supply used to propel a vehicle or vessel (i.e. vessel "bunkering").
	Internal transfer	The movement oil from one tank to another within a vessel/vehicle/facility.
	Cargo (oil) operations	The movement of oil between a vessel or vehicle and a facility (dock, terminal etc.) or other vessel/vehicle, including C.O.W.
	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.
	Oil transfer (non-fuel)	Taking on or discharging lubrication, hydraulic, or other oil not used as fuel.
	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.