Postgraduate Certificate in Pipeline Integrity Management

Emergency Response Planning for Pipelines

A

Aboveground Facilities: Facilities or structures that are located on the ground surface and are used in pipeline operations, such as valves, pump stations, and metering stations.

Accessible Locations:

Locations that can be easily accessed and inspected, such as aboveground facilities, valves, and pump stations. These locations are critical in emergency response planning as they allow for quick identification and resolution of issues.

Accident:

An unexpected event or series of events that result in harm to people, the environment, or property. Accidents can occur in pipeline operations due to various factors, including equipment failure, human error, and external events.

Advisory Group:

A group of experts and stakeholders who provide guidance and recommendations on emergency response planning for pipelines. The advisory group can include representatives from regulatory agencies, emergency response organizations, industry associations, and Indigenous communities.

Alarm Systems:

Systems that detect and alert operators to abnormal conditions or emergencies in pipeline operations. Alarm systems can include pressure alarms, temperature alarms, and flow rate alarms.

API (American Petroleum Institute):

An industry trade association that represents the interests of the oil and natural gas industry. API develops and publishes standards and recommended practices for pipeline operations, including emergency response planning.

As Low as Reasonably Practicable (ALARP):

A principle that requires operators to reduce risks to a level that is as low as reasonably practicable, taking into account technical, economic, and social factors.

Audit:

An independent review of an organization's emergency response plan to ensure compliance with

regulations, standards, and best practices.

Authority Having Jurisdiction (AHJ):

The organization or agency that has the legal authority to enforce regulations and standards related to pipeline operations and emergency response planning.

B

Barrier Analysis:

A technique used in emergency response planning to identify and analyze barriers that prevent or mitigate the consequences of accidents.

Bunding:

A method of containing spills or leaks in pipeline operations by surrounding the pipeline with a barrier, such as a wall or dike.

Business Continuity Planning (BCP):

A process of creating systems, policies, and procedures to ensure that critical business functions can continue during and after a disaster or emergency.

C

CAP (Community Awareness and Protection) Program:

A program that provides information and training to communities located near pipelines to help them prepare for and respond to emergencies.

Cause Analysis:

A process of identifying the root cause of an accident or incident in pipeline operations.

CEPA (Canadian Energy Pipeline Association):

An industry association that represents the interests of pipeline companies in Canada. CEPA develops and promotes best practices and standards for pipeline operations, including emergency response planning.

Change Management:

A process of managing changes to pipeline operations, including updates to emergency response plans.

Checklist:

A list of tasks or actions that must be completed during an emergency response. Checklists help ensure that all necessary actions are taken and that no steps are missed.

Circumferential Cracking:

A type of crack that occurs along the circumference of a pipeline and can lead to leaks or ruptures.

Class Location:

A classification system used to determine the risk of a pipeline based on population density and the potential consequences of an accident.

CODR (Community Liaison Officer):

An individual who serves as a point of contact between a pipeline company and the community. The CODR provides information and assistance to the community during an emergency response.

Communication Plan:

A plan that outlines how information will be communicated during an emergency response, including who will communicate what messages to whom, and through what channels.

Community Engagement:

A process of involving communities in the development and implementation of emergency response plans. Community engagement helps ensure that the needs and concerns of communities are addressed in the emergency response plan.

Consequence Analysis:

A process of analyzing the potential consequences of an accident or incident in pipeline operations.

Contingency Plan:

A plan that outlines the steps to be taken in the event of an emergency or unexpected event in pipeline operations.

Control Room:

A facility where operators monitor and control pipeline operations.

Corrosion:

A process of deterioration that can weaken a pipeline and lead to leaks or ruptures.

Crack:

A break or fissure in the pipe wall that can lead to leaks or ruptures.

Crisis Management:

The process of managing a crisis or emergency situation, including identifying the crisis, assessing the

situation, and taking appropriate action.

Critical Energy Infrastructure:

Infrastructure that is critical to the functioning of society, including pipelines, power plants, and refineries.

Damage Prevention Program:

A program that aims to prevent damage to pipelines during excavation or construction activities.

Dangerous Goods:

Substances that pose a risk to people, the environment, or property if not handled or transported properly.

Data Management:

The process of collecting, storing, and analyzing data related to pipeline operations and emergency response planning.

Decision-Making Framework:

A framework that provides guidance on decision-making during an emergency response.

Decommissioning:

The process of retiring a pipeline from service, including the removal of the pipeline and restoration of the site.

Deflagration:

A rapid combustion process that propagates at a velocity less than the speed of sound.

Defense in Depth:

A strategy that uses multiple layers of protection to prevent or mitigate the consequences of accidents.

Department of Transportation (DOT):

A U.S. federal agency that regulates pipeline operations and emergency response planning.

Design Basis:

The set of conditions and assumptions used in the design of a pipeline.

Desktop Exercise:

A type of emergency response exercise that simulates an emergency scenario using tabletop exercises and discussions.

Detailed Emergency Response Plan:

A comprehensive plan that outlines the steps to be taken in the event of an emergency or unexpected event in pipeline operations.

Disaster Recovery Plan:

A plan that outlines the steps to be taken to restore operations after a disaster or emergency.

Drills:

Exercises that simulate emergency scenarios to test and evaluate emergency response plans.

E

Emergency:

A situation that requires immediate action to prevent or mitigate harm to people, the environment, or property.

Emergency Management Program:

A program that outlines the policies, procedures, and structures for managing emergencies in pipeline operations.

Emergency Operations Center (EOC):

A facility where emergency responders coordinate and manage the response to an emergency.

Emergency Response Action Plan (ERAP):

A plan that outlines the steps to be taken in the event of a specific emergency scenario, such as a pipeline rupture or spill.

Emergency Response Plan (ERP):

A plan that outlines the steps to be taken in the event of an emergency or unexpected event in pipeline operations.

Emergency Response Procedures (ERPs):

Detailed instructions for responding to specific emergency scenarios.

Emergency Shutdown Procedure (ESD):

A procedure that outlines the steps to be taken to safely shut down a pipeline in the event of an emergency.

Emergency Support Function (ESF):

A function that provides support to emergency responders during a disaster or emergency.

Energy Resources Conservation Board (ERCB):

A former regulatory agency in Alberta, Canada, responsible for regulating pipeline operations and emergency response planning.

Environmental Impact Assessment (EIA):

A process of evaluating the potential environmental impact of a proposed project or activity.

Equipment Maintenance:

The process of maintaining and repairing equipment used in pipeline operations.

Escalation Plan:

A plan that outlines the steps to be taken if an emergency response is not successful in resolving the emergency.

Event Tree Analysis (ETA):

A technique used in emergency response planning to analyze the possible outcomes of an initiating event.

Excavation:

The process of digging or removing soil or other materials from the ground.

Exercise:

A simulation of an emergency scenario used to test and evaluate emergency response plans.

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