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Effect of Crude Oil Pipeline Spills

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Effect of Crude Oil Pipeline Spills

Crude oil is unrefined petroleum, which is refined to produce products like diesel and gasoline. It is one of the primary sources of energy globally. However, the processing of crude oil into an energy source or fuel source is detrimental to the environment because it releases carbon dioxide creating a greenhouse effect. In addition, ever since the discovery of crude oil, pipeline spills have increased, which harms the planet. The paper will discuss the economic, health, and environmental impact of crude oil pipeline spills.

Crude oil pipeline spills negatively impact the economy because it could lead to the shutting down of a company responsible for spillage. For instance, Keystone Pipeline had a pipeline oil spillage of over 380,000 gallons of crude oil in North Dakota's rural wetlands. This led to the Keystone Pipeline Company's shutting down to deal with the spillage (Queally, 2017). This effect affected the employees working for the company because they were out of jobs. Second, the closing down of the Keystone Pipeline also affected the economy because it created a shortage of petroleum products in the market, which leads to an increase in fuel prices and other commodities such as food. The pipeline oil spillage also affects the economy because crude oil processing will be delayed due to the production rate. The quantity of the products from the received crude oil will have reduced. This affects the production of crude oil products to meet the demand.

Crude oil pipeline spills cause significant health issues to children, people who clean the spillage, and pregnant women. One's health can be affected when exposed to pipeline crude oil spills through ingestion, direct skin contact, and inhalation. For instance, if the crude oil pipeline happens to cross through a settlement, children under ten years are likely to play around that area. Due to curiosity, they would touch, inhale the fumes, or ingest the crude oil spillage since it

is a foreign object to them (Laffon et al., 2016). When they accidentally inhale the fumes of a pipeline crude oil spillage for pregnant mothers, the fumes can easily pass through the placenta and to the unborn child. This causes the fetus's circulatory, immune, and nervous system to develop poorly, causing congenital disabilities when the child is born. In addition, individuals tasked with cleaning the crude oil spill suffer from chemical pneumonia because of inhaling the fumes (Lambert et al., 2017).

The environment suffers the most from pipeline crude oil spillage, especially if the pipeline passes through a water body. The aquatic life is heavily affected because they cannot breathe due to lack of oxygen, leading to their death because of the layer of crude oil covering the water body. The soil also gets contaminated by weakening the components and nutrients that allow plants to grow (Ndimele et al., 2018). Also, pipeline crude oil spill contains highly flammable contents and may cause a fire in the surrounding areas. For instance, if a crude oil pipeline passes through a nearby forest, in the event of a wildfire, the crude oil spillage will cause the fire to spread further into the forest, causing deforestation and emission of greenhouse gases.

In summary, having discussed the economic, health, and environmental impact of crude oil pipeline spills, it is clear that oil spillage accidents through pipeline have become rampant. This is because these pipelines were constructed years ago and have become worn out due to constant use. With technological advancement, these pipes can be renovated to become spill-proof to safeguard the environment, economy, and people's health. This comes from the fact that the pipeline transportation of crude oil is efficient and cost-effective. Therefore, people in charge of handling pipeline transportation should detect leaks early and repair them before catastrophic events happen.

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