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Executive Summary

The project site was being remediated when it had to stop due to the risk of breaching the cap. However, stopping the work is more hazardous to the site and surroundings. This report recommends that the letter of Intent should be signed and construction should continue without further a due. The environment hazards and biological hazards are a threat to the construction site hence there should be no more delay. Building structures requires a lot of natural and raw materials throughout construction, whether it's a skyscraper or a dam. limestone, Wood, clay, construction sand, metals (such as structural steel and electrical wiring), and (often non-potable) water are all included in this category of materials. It is possible to find some of the materials needed on-site (such as clay for a dam wall), but this is not always possible. Prior to the construction of a building, it is important to do a thorough investigation of the environmental impact of the building's usage of natural materials.

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Introduction and Overview

Construction-related environmental risks have risen to the top of the public's agenda. The term "environmental risk" refers to any threat or prospective threat to the environment (regardless of the severity or duration of the harm) that will be explained in this report. Several studies have shown that building is a major source of environmental damage and pollution. It is common practise to classify construction-related pollution risks according to the types of pollutants they may cause. Environmental contamination is necessary to mitigate or eliminate the dangers that they pose. Since environmental risk management and sustainable development have been widely accepted, there has been a growing desire for construction companies to implement correct procedures for environmental improvement. Groundwork company and Main Contractor has options if the client does not take additional action, as this report discusses the projected hazards and possible programme results. Finally, this report will hold a short conclusion and will provide recommendations of how to further proceed with the project without breaching the cap or the letter of intent.

Program Outcomes and potential hazards

Potential Hazards

Biological hazards provide a particular threat to workers whose jobs include frequent contact with other humans, animals, or infectious diseases. Animal faeces, fungi, viruses, blood, and mould all pose a threat.

Biological dangers are more likely to be encountered during demolition, groundwork, or renovation on construction sites. Workers at demolition sites, for example, may be exposed to bird feces-contaminated dust or water. Histoplasmosis, a potentially fatal respiratory condition, could result from exposure to them.

It is common for large-scale projects to necessitate considerable "land disturbance, including the removal of vegetation and the re-formation of topography. Soil erosion is made more likely as a result of these practises. Erosion can release soil into the atmosphere, causing a dust problem, or it can carry soil into nearby natural streams, polluting them. Due to siltation, the surrounding water bodies will lose their original clarity as a result of soil erosion from the exposed and loose dirt. In the event of severe

rain, this might lead to flash floods and mud floods in the immediate or downstream areas” (Stumpf, 2018).

The biological environment contains a wide variety of creatures and ecosystems. Local fauna and flora are almost certain to be wiped off by any development. Planning is required to keep losses to a minimum and ensure that they are "replaced" after implementation. Development near protected or endangered animals, wetlands, and forests is extremely critical (Stratus, 2021).

Ecology, economics, and aesthetics all have a role in water quality. If water quality deteriorates, the aesthetic value of water may be lowered or perhaps removed. Early clearing and grading activities leave the soil prone to erosion, which raises the risk of soil erosion and water quality throughout the development process. Significant land removal is most dangerous and harmful during the rainy season, when the soil is more vulnerable to eroding.

The production of noxious gases and smoke, the burning of waste and the discharge of chemical contaminants such as heavy metals, various hazardous bases, and acid are both substantial causes of pollution that are released into the atmosphere. Dust particulates in the atmosphere are increased as a result of construction-related activities such as filling, removals, grading, and others. Additionally, emissions from construction equipment could have an impact on the quality of the air. (Steve, 2019).

If the borehole water is not deep enough, capillarity seepage will cause it to become contaminated. This is determined by the soil and surrounding environment's chemistry. During a strong rain, industrial fallout like lead dusts can be swept down into the soil by the water and become a threat to human health. As a result, the water in the borehole has become contaminated.

There are major consequences to drilling for oil and gas in our wildlands and towns. In addition to causing pollution, drilling operations have a negative impact on animals and public lands that were set aside for the benefit of all (UIA, 2021).

Program Outcomes

A letter of intent was submitted to Mr. Contractor as the project needs to resume as soon as possible. Documents to be gathered include the following (Guffey, 2016):

- This resource is regularly updated to account for new information and is arranged according to different construction and design specialisations.
- Justification for the project and the underlying economics.
- a list of the equipment, its cost, and its condition (specified, bid, purchased, etc.).
- Spare parts, potential expansion/excess capacity, etc. should be documented.
- Recorded schedule with current status.
- If contracts and purchase orders have been issued, a detailed description of the existing condition of things and any commercial arrangements established in regard to the suspension or termination of employment should be provided.
- Summary of the value that has been earned.
- Drawings, vendor submissions, computations, specifications, surveys, pipe line lists, etc., with a precise indication of the status of each delivery.
- This document reviews environmental permits, regulations, and regulatory contacts.

Ideally, all building projects would begin on time and then proceed in a steady pace until they were finished. It's a shame that this isn't always true. When it comes to industrial facilities and other system-intensive building projects, the business rationale for capital expenditures might change substantially in a short period of time. It's not unusual for a project to come to a halt. In the event that work is halted while waiting for equipment to arrive, storage fees may be incurred, or equipment may need to be rotated or other normal maintenance activities performed. Because of the time restrictions of the project, the warranties offered by the manufacturers ought to be renegotiated or kept to the greatest extent possible. Getting a project back on track is essential for maintaining focus, evaluating the value of previous effort, and redefining or restating the project's scope, budget, timeline, and desired conclusion. There should be a thorough review of the project charter, including the points listed above and any other issues that the project team has found (Guffey, 2016).

It is possible to assess the project's current status by “using risk assessment, Monte Carlo analysis, and/or the re-execution of a Project Definition Rating Index (PDRI)”. The project team and all the way up to the level of approval should remain open to ensure that the project is restarted on the right track.

Resuming postponed projects will be easier if these rules are followed, which should result in fewer construction-related complications, design or and less headaches in the long run.

To proceed with a construction project that has been on hold for a long period of time, the first step is to do a thorough review of the current situation. During the project's hiatus, a slew of new possibilities could have arisen. As a result, there will be a learning curve and new team dynamics and opinions to consider if a new project team is put in place.

The regulatory environment is always changing, and this needs to be closely monitored. The team's environmental and/or legal support should be consulted on this issue, which is extremely particular to the project's output. A plant's procedures and equipment could be impacted by new norms or regulations that are in the works.

The demand for the project's output may have changed due to market circumstances. A decrease in the price of a product may be possible, for instance, if production levels at the same factory and using the same equipment were increased even somewhat. On the other hand, competitors may be working on programmes or procedures that will change the nature of the competitive landscape.

Additionally, the project's staff should check to see if there are any newer technologies that could improve the project's efficiency or throughput.

It's also time to do another look over the site. Many considerations, including as taxes, labour availability, and the ownership of an already-existing site, might alter throughout time. Another problem that could arise is erosion, overgrowth, wind and flood damage as well as other concerns if a shutdown occurs soon after grading and subgrade work has been completed.

If production is delayed while equipment is ordered, there may be storage charges and/or maintenance requirements. Due to project deadlines, manufacturers' warranties should be renegotiated or kept.

Team members will revisit all of these issues as soon as possible after the project is restarted. There should be a formal review and approval of the project charter. Project Definition Rating Index (PDRI), Monte Carlo analysis and/or re-execution would also be appropriate methods to evaluate the project's genuine status with respect to new or restated objectives.

Approach

An important part of project management is to monitor performance. Everyone must have a role to play in order to carry out this plan and keep everyone on the same page. Smaller, more achievable daily activities should be broken down into project-wide goals by individuals. Things will pile up tomorrow if you don't get them done today. Enforce the terms of the agreement by establishing rules and regulations. As a result, you can keep your project from coming to a grinding halt.

You can't get anything done quickly if you don't have clear objectives. If employees aren't clear on what they need to do, a construction project can quickly fall behind or go over budget (or both). These goals make it difficult to hold people accountable for their actions in a project.

An outmoded method of invoicing is essential to the construction industry. If payments are not kept up with, it could have a negative impact on cash flow. As a result, financing for other initiatives may run low, resulting in setbacks. This necessitates the evolution of invoicing systems. Cashflow issues can be avoided if construction companies have the proper software and follow-up procedures in place.

“Long-term risk mitigation is a common practice among project managers.” However, short-term considerations are frequently overlooked. It's possible for these problems to quickly escalate and have a significant impact on the bottom line (Clancey, 2021).

Conclusion and Recommendation

The project would resume when Mr. Contractor allows and signs the letter of intent. There are many environmental and biological hazards that can affect the site and surroundings if the construction isn't resumed soon. Some risks (e.g., direct risks such as air emissions and water discharges) will be within the control of the organisations, while others (e.g., indirect risks such as climate change) can only be indirectly influenced (e.g., the activities of raw material suppliers). In order to determine the significance of both types of pollution, they must be evaluated. There are a wide range of dangers that might be local, regional, or global, immediate or long term, and of varied importance. In order to determine the most critical environmental concerns to address during construction, it is necessary to first assess the potential impact (Esa, 2014).

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