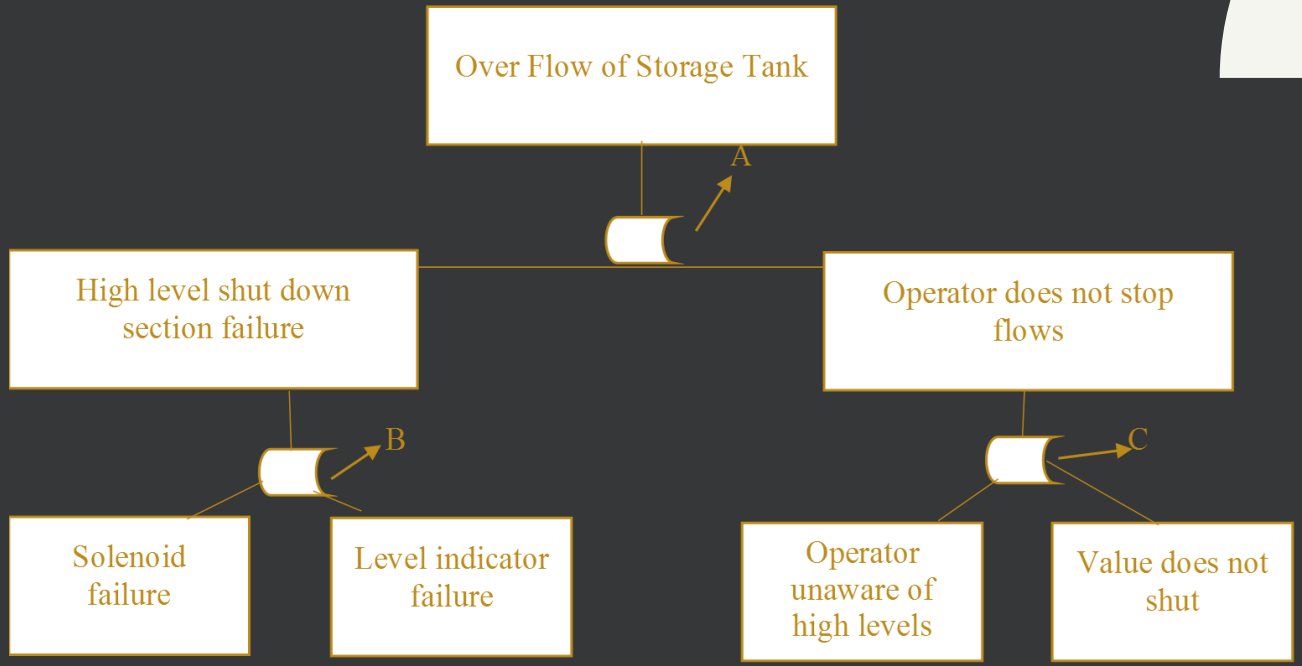
Hazard & Risk Management

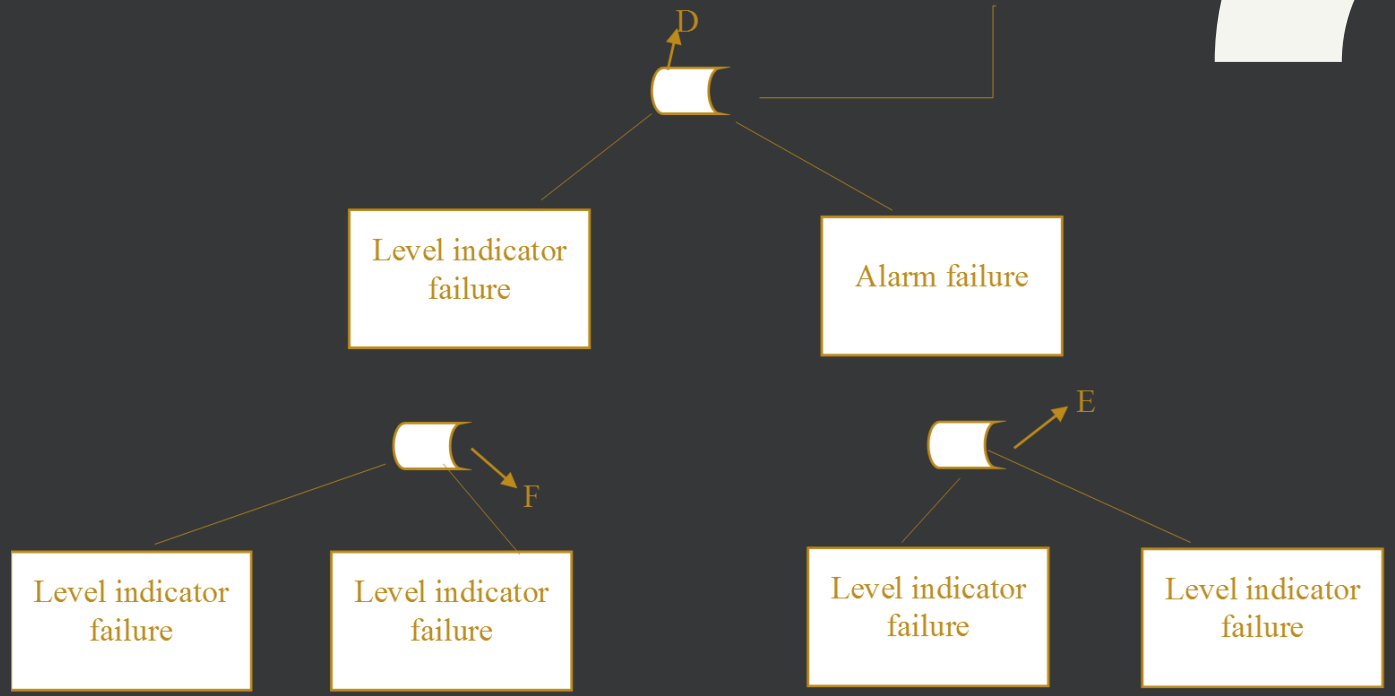
Background/ Overview

- Event tree analysis (ETA) is a technique for analyzing the events and processes leading up to an accident. This technique involves causal analysis.
- The accident sequence is determined based on an analysis of the actions and events preceding it.
- The analysis is done using a graphical logical model. It is also important to consider the human operator's response to the accident and the security system's reaction.

Event Tree Analysis



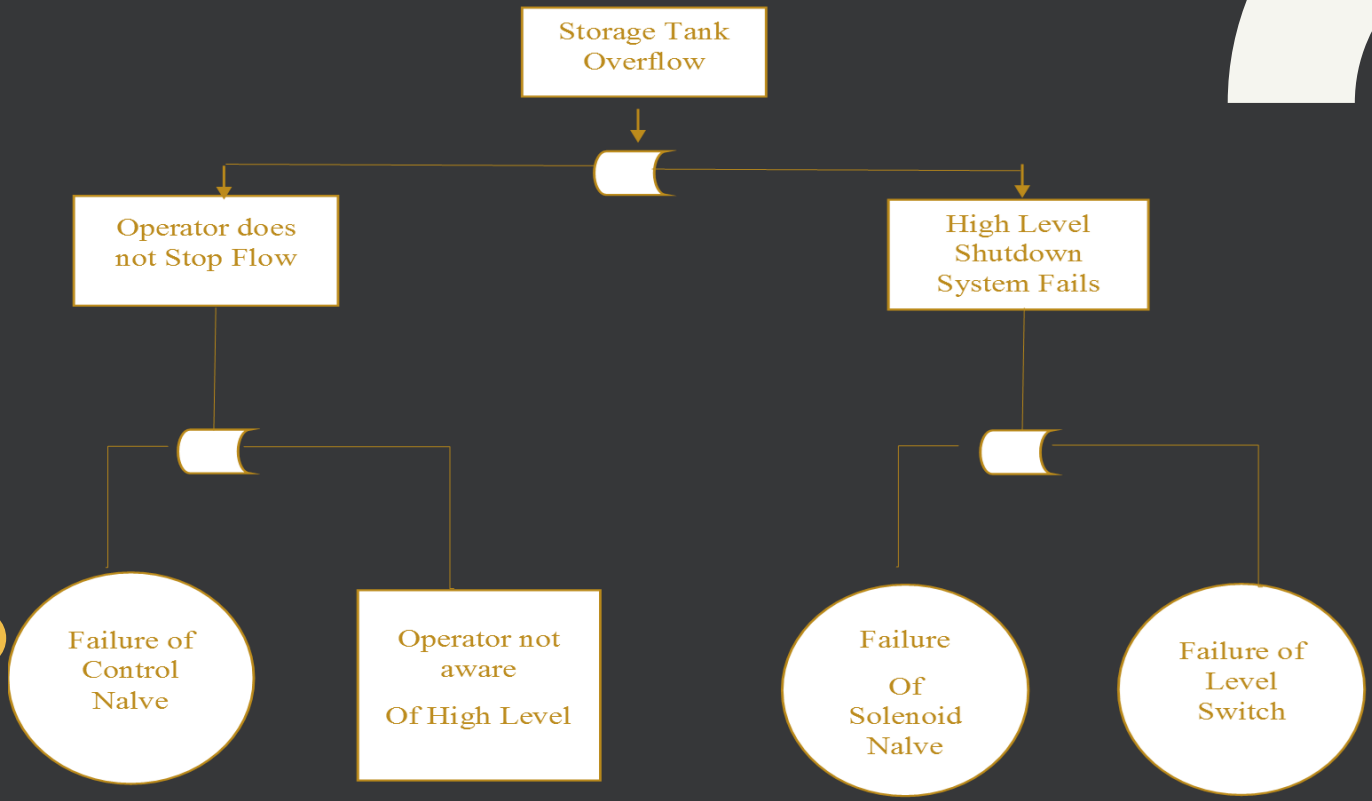
Event Tree Analysis



Fault Tree Analysis

- As a top-down, deductive failure analysis, fault tree analysis examines an unwanted state of a system by integrating it with a series of lower-level events using Boolean logic.
- To determine the cause of a system's failure, an analysis is performed.
- A system can also be tested for its reliability and how it operates with this method.
- Before a failure occurs, an analysis is done to identify the cause so that a possible solution can be implemented to mitigate it (Lai, Sujeet, & Fan, 2018).

Fault Tree Analysis



Stages of Fault Tree Analysis

- To support the system, it is necessary to obtain accurate support information.
- There is a wide range of information within the information technology department that can be utilized to enhance the operations of the company.
- Supporting information could be presented in the form of a component list, a boundary diagram, a schematic, a code requirement, and an explanation of engineering noises and environments.

Thank you!