Security Level in an Oil Refinery: Review of the Approach and Constraints

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Abstract
Accidents in oil companies have not stopped growing for years. The damage is relatively heavy in the case of undiscounted security systems. The causes of the accident are multiple and of different natures. They require an update of methods of analysis, management, modeling and prevention. In the present work, we will present a study on the main corrosion-related accidents in an oil company. The results show that the risk analysis is not updated, the preventive actions are not revised and do not meet the requirements. As a result, a new dynamic risk analysis system has been proposed. A numerical modeling of the risks related to corrosion has been put in place. An extensible database has been created. The first results of this new system are encouraging.
Keywords: Oil company, Accidents, Risk analysis, Modeling, Corrosion