A study to identify factors of prevention of roll-over of LNG is proposed. LNG is stored in highly insulated storage tanks at pressures slightly above atmospheric and temperature of its boiling point. Because of the heat ingress into the tank, some LNG will vaporize, hence the pressure of the container will increase. The boil-off gas that is continuously produced will be removed to maintain constant pressure and thus avoid over-pressurization. While LNG vaporizes, its more volatile components will evaporate and what is left of the LNG will be richer with heavy components. This will change the thermophysical properties of the LNG process known as weathering. In some cases, when a new stock of LNG is mixed into an old one, which had time to go through weathering, the LNG can stratify into layers and a sudden release of heat trapped in the lower layer will occur. This is known as LNG roll-over. Since roll-over can be potentially dangerous, this study aims to recognize ways of avoiding it by creating a model to analyze the heat ingress into and inside the tank.

Themes:

Check (highlight) the most applicable theme according to the abstract.

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<thead>
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<th>Innovation and Technology</th>
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Comments:

What is LNG? It would be helpful to state the full name before using the abbreviation and briefly describe what it is.