

Review Form 1.7

Journal Name:	Asian Journal of Environment & Ecology
Manuscript Number:	Ms_AJEE_119263
Title of the Manuscript:	Accident Investigation using Event Tree Analysis, Root Cause Analysis and Threat Zone Determination Using ALOHA Software: A Case Study of Styrene Gas Vapour Release at Vishakapattinam
Type of the Article	Case Study

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PART 1: Review Comments

	Reviewer's comment	Author's comment (if agreed with reviewer, correct the manuscript and highlight that part in the manuscript. It is mandatory that authors should write his/her feedback here)
<p><u>Compulsory</u> REVISION comments</p> <p>1. Is the manuscript important for scientific community? (Please write few sentences on this manuscript)</p> <p>2. Is the title of the article suitable? (If not please suggest an alternative title)</p> <p>3. Is the abstract of the article comprehensive?</p> <p>4. Are subsections and structure of the manuscript appropriate?</p> <p>5. Do you think the manuscript is scientifically correct?</p> <p>6. Are the references sufficient and recent? If you have suggestion of additional references, please mention in the review form.</p> <p><u>(Apart from above mentioned 6 points, reviewers are free to provide additional suggestions/comments)</u></p>	<p>Yes, the manuscript detailing the Visakhapatnam gas leak incident and its comprehensive analysis is crucial for the scientific community and beyond. Through meticulous investigation and the utilization of various analytical tools like ALOHA, Event Tree Analysis, and Root Cause Analysis, it not only sheds light on the specific incident but also serves as a reference point for understanding and preventing similar calamities in the future.</p> <p>The title, while suitable, could be streamlined to reduce redundancy. Suggestions include: "Analyzing the Styrene Vapor Release Incident in Vishakapatnam: Utilizing Event Tree and Root Cause Analysis with ALOHA Software" or "Styrene Gas Leak Incident Analysis in Vishakapatnam: Utilizing Event Tree and Root Cause Analysis for Risk Mitigation" or "Styrene Gas Leak Incident Analysis in Vishakapatnam: Event Tree Analysis, Root Cause Analysis and Threat Zone Determination Using ALOHA Software"</p> <p>Yes. However, the last two sentences in the abstract must be clear as they are the main takeaways of the findings. Recap the key findings on the causes and consequences of the incident. Clearly state how these recommendations address the identified causes and mitigate the risk of similar incidents in the future.</p> <p>Yes, but it can be improved. Explain Table 1 and 2 separately. Consider the impacts of the data tables to better build the background of the research. Consider to have higher resolution images on Figure 1 to Figure 8. Particularly, Figure 8 is not clear. These must be properly re-sized to the journal standard. As the solution to resizing images, consider to use JCE template in ppt template (https://pubs.acs.org/page/jceda8/submission/jceda8_templates.html). Use the same colour background for the Figures. Figure 1 was taken from the Report of Joint Committee? Do you have the permission to reprint this? If not, consider an alternative.</p> <p>Yes, while the information is valuable, it could be summarized in tables or appendices to maintain the flow of the main text.</p> <p>Specific references for all claims, particularly in the sections on tank design and temperature control, are necessary to ensure the accuracy and reliability of the information presented.</p> <p>The analysis of the response to the incident by the CBRN unit and NEERI team could be expanded.</p> <p>A timeline of events from the moment of the leak to the resolution would help in understanding the sequence of actions and responses.</p> <p>While the impact on human health and the environment is mentioned, a more detailed assessment, including short-term and long-term effects, would strengthen the study.</p> <p>Add a clear 'recommendations section'. So that, it could be more specific. For instance, detailing the type of training programs for personnel or specifying the materials for tank construction would make the recommendations more actionable.</p>	

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Minor REVISION comments		
1. Is language/English quality of the article suitable for scholarly communications?	Yes.	
Optional/General comments	This paper is a valuable contribution to the understanding of the Visakhapatnam gas leak incident. With improvements in structure, clarity, and detail, it can serve as a comprehensive resource for enhancing safety measures in the chemical industry.	

PART 2:

	Reviewer's comment	Author's comment (if agreed with reviewer, correct the manuscript and highlight that part in the manuscript. It is mandatory that authors should write his/her feedback here)
Are there ethical issues in this manuscript?	<i>(If yes, Kindly please write down the ethical issues here in details)</i>	

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