

عنوان مقاله:

Emission evaluation of CO₂ and CH₄ gases in the selected gas pressure booster station in the Bangestan field of the National Iranian Oil Company

محل انتشار:

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خلاصه مقاله:

Background: Iran is located in the seventh rank in terms of CO₂ emissions resulting from the fuel combustion in the world. Gas compressor booster stations, due to the several sources of contaminants, are causing the release of large amounts of CO₂ and CH₄, which will cause climate change; therefore, estimating the emissions of the gases from oil and gas, different processing units are necessary. Methods: In this study, the emissions factor method, provided by various organizations, was used for determining emissions of CO₂ and CH₄ from different sources. Results: According to the results obtained, the total amount of CO₂ emissions in selected units is from the selected unit and is a significant contribution to the CH₄ emissions, so that the whole amount of CO₂ emissions is equal to 7739.027 tons per day and the total amount of CH₄ emissions is 4 tons per day. Conclusion: Burner has the highest amount of CO₂ emissions among the sources of pollutants in the fixed combustion sources; and, the highest emissions of CH₄, among the exit gas sources, belong to the process of removing water. Among the exit gas sources-compressors maintenance activities the highest emissions belong to CH₄. The amount of CO₂ emissions from indirect sources, including electrical equipment in the studied units, are from natural gas fuel which are much more than those from fuel oils for burning. CH₄ gas from volatile sources in the gas compressors have the highest emissions compared to other sources.

کلمات کلیدی:

Greenhouse gases, Emission factor, Gas compressor booster station of Bangestan

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