**Assessment of Air Quality status using Pollution Indicators**

**in industrial zone of Brega city**

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**Abstract:**

Air pollution has become a major environmental issue with definitive repercussions on human health. Global concerns have been raised about health effects of deteriorating air quality due mainly to widespread industrialization and urbanization. To assess the quality of air in Brega, air quality indicators were calculated using the U.S. Environmental Protection Agency procedure. Air quality was monitored from 01/10/2019 to 28/02/2021 with daily average measuring six pollutants of particulate matter <2.5µm (PM2.5), and <10µm (PM10), sulfur dioxide (SO2), nitrogen dioxide (NO2), ozone (O3), and carbon monoxide (CO). The result indicated that air pollution at general air quality monitoring site for sulphur dioxide, carbon monoxide, PM10 and PM2.5 and nitrogen dioxide are always within the permissible limit. Referring to monthly average of Pollutants in Brega Industrial area, all months were out of AQGs limit for NO2, and the same with O3 except two months. For PM2.5 and PM10 7, 5 out of 17 months were out of limits, respectively. Relative AQI for ozone is found in the range of moderate category of general air pollution, and the worst month was Nov. 2020 which was marked as Very Unhealthy category, then the next two months ( Dec. 2020 and Jan. 2021 ) were Unhealthy categories.

It's the first time that we use the AQI in SOC, and not usually used in Libya to identify the quality of air pollution. So, I think it will be useful if AQI used as guidance of specified air pollution. That’s dictates to put monitoring stations beside any industrial activity has emissions of the six major air pollutants.

**Biography of Tawfig A.M. Falani:**

Birth date: 07th Mar. 1971

Bachelor of Science in Environmental Studies, Feb.1995, Sabha University, Libya

**KEY QUALIFICATIONS**

* 22 years’ professional experience
* Noise maps designer
* Member, Sirte Oil Company Safety team
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* Conducted several projects in land farm remediation, noise survey, and noise risk assessment.

**RESEARCH PAPERS**

* Hydrocarbon pollutants and their level of deployment in Sirte refinery area of operations.
* Environmental noise survey of Sirte Oil Company.
* Assessment of Man-Made River and environmental impact of shallow wells in Ajdabia.
* Wastewater treatment system in Sirte Oil Company.
* Drinking water treatment system in Sirte Oil Company.
* Sewage system regulations of Sirte Oil Company.

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