



SDI Review Form 1.6

Journal Name:	<u>British Journal of Applied Science & Technology</u>
Manuscript Number:	Ms_BJAST_23688
Title of the Manuscript:	Outdoor Air Quality and Acid Rains within Warri Refinery and Its Environs
Type of the Article	Original Research Article

General guideline for Peer Review process:

This journal's peer review policy states that **NO** manuscript should be rejected only on the basis of '**lack of Novelty**', provided the manuscript is scientifically robust and technically sound.

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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)
Compulsory REVISION comments	Pollutants considered in this study are insufficient to define air pollution caused by this industry. Particulate matter is estimated to be major risk factors for global health causing every year millions deaths. (Global, regional, and national incidence, prevalence, and years lived with disability for 301 acute and chronic diseases and injuries in 188 countries, 1990–2013: a systematic analysis for the Global Burden of Disease Study 2013 Published: June 8, 2015). NO_x CO PAHs Dioxins Furans As Pb Ca Cu Ni Pt Mn Va Co Ti Cr Sn Be and Se have to be considered. The problem is not only loc, for example, over Europe in general, regional background PM 2.5 levels have a considerable transboundary contribution of 40 - 80 % of the concentrations in air. (Health risks of particulate matter from long-range transboundary air pollution. WHO, 2006). It is estimated that approximately 3 % of	The focus was more on hydrocarbons, H₂S and CO₂ emission. Again air analysis is a n area of low interest due to cost and available instruments in Nigeria. Most combustion processes in air generates NO_x which contributes to acid rains but not a greenhouse gases. Minerals and PAHs were done on waste water effluent and the refinery's surrounding water bodies. The results shall feature in another manuscript I shall forward.



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	cardiopulmonary and 5 % of lung cancer DEATHS are attributable to PM globally. (Cohen AJ et al. Urban air pollution. In: Ezzati M et al., eds. Comparative quantification of health risks. Global and regional burden of disease attributable to selected major factors. Geneva, World Health Organization, 2004, 2(17):1354–1433 (http://www.who.int/healthinfo/global_burden_disease/cra/en/index.html, accessed 28 October 2012)) There is compelling human and experimental evidence that PRENATAL ENVIRONMENTAL EXPOSURES to Arsenic (As), Mercury (Hg), Lead (Pb) and many other TOXIC CHEMICALS PRODUCED BY FOSSIL COMBUSTION, acting alone or in combination with genetic, nutritional, or psychosocial factors, ADVERSELY AFFECT HUMAN DEVELOPMENT AND HEALTH IN CHILDHOOD AND POSSIBLY OVER THE LIFECOURSE. (Perera F, Herbstman J. Prenatal environmental exposures, epigenetics, and disease. <i>Reprod Toxicol</i>. 2011 April ; 31(3): 363–373). Arsenic (As), Mercury (Hg), Lead (Pb) and many other TOXIC CHEMICALS EMITTED BY FOSSIL COMBUSTION are silently eroding intelligence, disrupting behaviours, truncating future achievements, and damaging societies. A	Agreed. Respiratory diseases due t air pollution is a major global issues. This can be designed for another study. Agreed. The capacity to determine these mineral vapours in ambient air was
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	new framework of action is needed to oppose to what is called the “Silent Pandemic of Neurodevelopmental Toxicity in Children”. (Grandjean P, Landrigan PJ. Neurobehavioural effects of developmental toxicity. The Lancet Neurology, Volume 13, Issue 3, Pages 330 - 338, March 2014. Grandjean P, Landrigan PJ. Developmental neurotoxicity of industrial chemicals. Lancet. 2006 Dec 16;368(9553):2167-78). So the title have to be changed in relation to pollutants considered in the study. <i>35. Do not cite what an author considers but cite only number at the end of paragraph.</i> <i>incorrect: John, et al consider air pollution ecc.</i> <i>correct: Air pollution is considered ecc. (3).</i> <i>38. Do not cite what an author considers but cite only number at the end of paragraph.</i> <i>38/47. Repeatedly define air pollution, this</i>	beyond the resources and scope of the study Necessary action and corrections made on the references and line s affected.
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	<i>is redundant</i> <i>50. Do not cite what an author considers but cite only number at the end of paragraph.</i> <i>186/187. This sentence is not correct.</i> <i>CO2 do not contribute to acid rains.</i>	Corrected CO₂ in the atmosphere reacting with water vapour gives carbonic acid. I think heavy CO₂ emission contributes to acid rains
<u>Minor</u> REVISION comments		
<u>Optional/General</u> comments		