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## **ENVIRONMENTAL IMPACT ASSESSMENT USING THE METHOD OF GLOBAL POLLUTION INDEX APPLIED FOR A HEAT AND POWER CO- GENERATION PLANT**

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### **Abstract**

The investigated site is a heat and power co-generation plant situated into an industrial area, having a total surface of 18.38 ha. The most important facilities of this plant are energetically and industrial stream generation, electricity generation, hot water generation, electric energy transmission system to National Energetic System, and liquid or/and gaseous combustion fuels units. The environmental impact is assessed using the method of global pollution index, as was proposed by Rojanschi and improved by Popa et al., in order to get the final results in a very useful way. The studied environmental components are considered: air, surface water and soil. For each components is established an evaluation degree and calculated the global pollution index. The results of the two studied global pollution methods applied for an energetically unit are similar, and correspond to the situation of “environment modified by industrial/economic activities dangerous to life form”. The activity of the heat and power co-generation plant seriously modifies the environmental quality, especially air quality, inducing a great impact in environment. This requires remediation actions and pollution control for minimization of all emissions into environment.

*Keywords:* heat and power co-generation plant, environmental impact assessment, global pollution index

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