Change analyze before and after the implementation of integrated management systems (IMS) using safety performance monitoring indicators

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Abstract

Background: By considering the development of power plants in the country and identifying potential hazards in the mentioned work process, this study intends to change analyzes before and after the implementation of integrated management systems to control the consequences of hazards by this systematic methods.

Methods: This study is a descriptive - analytical in type of before and after that during the years 1383 to 1390 in Yazd combined cycle power plant is accomplished. Variables are hour of work, days of lost work, the coefficient of accident frequency rate (AFR), coefficient of accident severity rate (ASR), the coefficient of accident frequency severity rate (FSI), the coefficient of T Safe (safe t score) and the coefficient of incident rate (IR) and frequency rate (FR).

Results: Among different jobs, the highest number of accidents was related to workers and the lowest number of incidents was related to engineers and experts. The highest rate indicators of the frequency, intensity, intensity - frequency and frequency rate and incident rate coefficients related to the year 1383 (the year before the implementation of integrated management systems) and the highest accident severity index was related to year 1387. Meanwhile the lowest Value of all indicators belongs to year 1390. According to the safe T coefficient, until 1388, changes have been Significant and the situation has improved and significant in the years 1390-1389 (safe t score <-3).

Conclusions: Results have showed that the implementation of safety programs has a positive impact on reduction of accident indicators and on various situation is used by coefficients that change trend will show better than control chart.

Key Words: Accident frequency rate, Accident severity rate, Frequency severity index, Safe t score, Incident rate, Frequency rate

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