Initiatives of Cleaner Production in the Oil and Gas Exploration and Production Industry

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Abstract

Taking into consideration the global scenario involving questions related to environmental management and protection, in addition to the initiatives generated as consequence from environmental legal advances in gas and oil exploration & production area, Petrobras has been working, since 2011, in the development of projects based in the Cleaner Production methodology, within a corporative program. Petrobras exploration & production segment is composed by more than a dozen operational units, which act in scattered spots in the Brazilian territory, performing a great amount of off and onshore activities, involving the complete chain of the exploring and producing area. In a certain way, this characterizes an intense challenge in the implementation of Cleaner Production projects, since its methodology predicts the selection and execution of actions in productive or administrative processes, both of which composed, several times, by a sequence of stages.

The beginning of the slow implementation (considering the existing universe) of projects based in the Cleaner Production methodology was predated by the availability of a HSE personnel training in Petrobras Units, provided by an institution with proven expertise in the theme. This training, designed in a scholastic shape, contributed in building and solidifying the methodology stages knowledge. In sequence, it was suggested to the Units to develop the creation and execution of a pilot project, that exemplified the methodology, but of easy and quick implementation. Thus, several ideas of projects emerged, some regarding the minimization of wastes generation and some the minimization of effluents, allowing their use in a wide range of situations.

In the course of the implementation of each pilot project associated with the generation of wastes/effluents in the different productive/administrative processes, despite the construction of interesting ideas that could be shared among the Units, there were also found several operational and organizational obstacles that, sometimes, contributed to the discussions about shared solutions, favoring experience gathering.

This paper discusses the experience accumulated during the realization of the training and the execution of the pilot projects as a contribution to the Cleaner Production theme towards the oil and gas industry, considering its size and the particularities of its processes, which not always match the classical linearity of a regular industry structure.

Keywords: Oil and Gas Industry, Cleaner Production, E&P