Opening Address

The annual cost of corrosion for the oil and gas industry in the world is estimated at $60 billion. The impact of corrosion in the oil industry leads to the failure of oil and gas processing equipment, in addition, corrosion usually causes serious environmental problems such as spills and emissions. Corrosion phenomena in the oil and gas industry are considered one of the most important factors of failure, which must be taken into account when designing oil and gas equipment in connection with not only causing economic losses, but also ensuring the safety and protection of resources. This compendium covers important areas for everyone involved in the management of oil and gas infrastructure corrosion. Corrosion control in the oil and gas industry provides engineers and designers with tools and techniques to develop and implement comprehensive corrosion management programs for the oil and gas infrastructure. Losses of companies caused by equipment accidents and repair operations, downtime, lost profit, are estimated in the hundreds of millions of dollars. Thus, one of the key tasks facing the international community of oil and gas producing and refining companies that sent their specialists to this conference is the development of complex, often non-standard approaches to improving equipment reliability and protecting materials from the aggressive effects of operating conditions. To ensure the smooth and uninterrupted flow of oil and gas to end users, it is essential that field operators, pipeline engineers and designers are aware of corrosion, as the lines and their components will be subject to material degradation due to corrosion. The chemistry of the corrosion mechanism has been investigated with various types of corrosion and related corrosive agents in the oil and gas industry. Factors affecting each of the different forms of corrosion were also presented. Ways to mitigate this threat with modern low-cost technologies were discussed. It was noted that the principles of corrosion should be understood in order to effectively select materials and design, manufacture and use metal structures for optimal economic life of facilities and safety during oil and gas operations. In addition, when using inhibitors and protective coatings together, oil and gas materials last longer than when using only periodic inhibition. However, it is recommended that consultation with corrosion technologists, operations, materials and engineers be necessary in order to save billions of dollars spent on corrosion in the oil and gas industry. The conference included reports on the following topics: Analysis of the causes of destruction, Cathodic protection, Corrosion at oil refineries and petrochemical enterprises, Corrosion mechanisms and test methods, Corrosion monitoring, Marine corrosion, Coatings and inhibitors, Construction and operation of wells, Pipeline transportation. More than 130 speakers presented their vision and solutions to problems in the construction and operation of wells, corrosion mechanisms and test methods, marine corrosion, corrosion at refineries and petrochemical enterprises and other topics and areas related to the processes of oil and gas production and processing of raw materials.

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