Regular Course on Wide Scope of Downstream Safety Management (TR-17-14)

1. Background and Objectives

From November 25 to December 12, 2014, a regular course on "Wide Scope of Downstream Safety Management" was implemented with the participation of a group of 12 selected engineers in charge of HSE from 10 countries. By providing knowledge of safety management technologies that form the foundation of all companies from various angles, the course aimed to develop engineers, and ultimately potential executives, with good knowledge of a broad range of technologies related to safety. Particular focus was placed on designing a course that covers the latest design techniques for plant safety; risk assessment and management technologies; systems, organizations and framework for safety management and disaster prevention and management; safety education in Japan; laws and regulations related to safety; and maintenance and management technologies.

2. Training at JCCP

First, a lecture was given to provide an understanding of the actual state of Japan's oil industry with reference to its history and background, the energy situation, the shares of crude oil import and product consumption, global status, trends toward deregulation and issues facing the industry, and new, non-oil businesses.

Next, lectures on "Safety-related laws and regulations in Japan" and "Prevention of behavior-based disasters and safety education" focused on laws, regulations and administration related to safety and disaster prevention in Japan. They specifically provided knowledge of security and industrial safety administration and various corporate activities that have supported Japan's economic growth, as well as their history and background.

With respect to plant design, lectures on "Plant safety design and risk management" and "Plant facility inspection and safety" discussed the principles and methods of plant safety design, and a lecture titled "Environmental management" examined the background to the Exxon Valdez crude oil spill accident that occurred in 1989 and whose ramifications are still being felt today.

On the last day of lectures, a lecture on "Safety management overview" discussed elements that are

At Idemitsu Kosan's Tokuyama Complex (large-volume foam fire extinguisher)

At JX Nippon Oil & Energy Corporation's Negishi Refinery

necessary for safe refinery operations in Japan as a summary of all previous lectures, with reference to their relevance to the composition of the entire course.

3. Site Visits

A representative refinery and office of a major Japanese oil company were visited during the course for onsite training.

1) Idemitsu Kosan Co., Ltd., Tokuyama Complex: Exchanges were held regarding the office's safety management organization and self-defensive framework for disaster prevention, in addition to TPM and various safety activities, specific case examples of safety facilities such as the large-volume foam fire extinguishing facilities, and safety education.
2) JX Nippon Oil & Energy Corporation, Negishi Refinery: The refinery's safety management organization and framework and safety-oriented activities were examined in reference to its initiatives for promoting harmony and social contribution in the local community and activities related to environmental conservation and safety management.
3) Other sites
   Yokogawa Electric Corporation: The company's latest DCS control system, new technologies for reliability improvement and redundancy, safety systemization technologies, etc. were discussed.
   Swing Corporation, Fujisawa Office: The company's wastewater treatment technologies and system facilities were introduced.
   Sompo Japan Nipponkoa Risk Management Inc.: A broad range of technologies and information on risk assessment and management in refineries were provided from the standpoint of an insurance company.

4. Observations

As this regular course was themed on safety management, a focus of increasing interest and needs in oil-producing countries in recent years, the course received as many as 34 applications from 18 countries. From among them, 12 participants were ultimately selected. They expressed strong enthusiasm in acquiring new knowledge from the course, and as a whole, they also displayed a high level of understanding beyond JCCP's expectations. To continue to respond to needs for safety in oil-producing countries, JCCP will make changes as necessary and strive to offer an even better program in the future.

Lastly, we extend our deepest appreciation to everyone who generously gave us their support and cooperation in bringing the course to a successful conclusion.

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