

Technological Assistance and Technology Transfer to Help Solve Environmental Problems in Developing Countries

We are disseminating technologies for environmental protection, energy conservation, and safety management to prevent environmental pollution in developing countries by using the human resources and technologies within the Cosmo Oil Group.

Our main activities include the conduct of domestic and international training programs funded by the Japan Cooperation Center, Petroleum (JCCP), long- and short-term dispatches of our specialists through the Japan International Cooperation Agency (JICA), and technical cooperation for the investigation of projects through the New Energy and Industrial Technology Development Organization (NEDO). The Cosmo Oil Group conducts these activities in close partnership with governmental organizations.

Recent International Activities

Model Project at Indonesian State Oil Company

Cosmo Oil, in cooperation with Cosmo Engineering Co., Ltd., conducted a feasibility study on a "Model Project for Improvement of Energy Efficiency" entrusted by NEDO at Indonesia's state-owned oil company in FY 2000-2001.

The results revealed that approximately 110 thousand tons of fuel consumption could be saved per year by flare gas recovery and hydrogen recovery from off-gas at the Balikpapan Oil Refinery run by the Indonesian state oil company.

Cosmo Engineering Co., Ltd. concluded a contract with NEDO to undertake the construction work for the

project based on the study results (the planned construction period is three years from FY 2002). This is one of Japan's greenhouse gas reduction projects that are implemented in overseas countries with technologies and funds provided from Japan. While promoting energy conservation projects in host countries, the project will also earn emission credits equivalent to the amount of greenhouse gases reduced.



At Indonesian State Oil Company after the signing ceremony

Energy Conservation Study at Isfahan Oil Refinery (Iran)

Cosmo Oil, entrusted by NEDO, carried out an energy conservation study at Isfahan Oil Refinery in cooperation with Niigata Engineering Co., Ltd. in FY 2001. A field investigation estimated that an annual reduction of 130 thousand tons of fuel consumption could be

achieved by revamping the existing crude oil atmospheric distillation unit, catalytic



Meeting for the energy conservation project at Isfahan Oil Refinery

FY 2001 Training Results (Training on environmental protection technology, energy conservation technology, and safety management)

	Number of training courses	Number of persons	Country
Hosted trainees	7	53	China, Iran, Mexico, South Korea
Dispatched trainers	5	15	China, Iran, Thailand, Indonesia

Long-term Dispatch of Specialists (Training on environmental protection technology, energy conservation technology, and safety management)

Country	Training	Period	No. of specialists
Mexico (Safety Training Center)	Safety management technology	Jan 99 to Nov 01	1
Egypt (Egyptian Environmental Monitoring Center)	Water pollution analysis technology	Jul 99 to Jul 01	1
Egypt (Egyptian Environmental Monitoring Center)	Water pollution analysis technology	Aug 01 to Aug 02	1
Chile (National Environmental Center)	Industrial wastewater quality analysis technology	May 00 to May 02	1

Dispatch of Specialists for the NEDO Entrusted "Basic Survey Project for Joint Implementation, etc."

Country	Subject	Period	No. of specialists
Iran (NIORDC)	Energy conservation at Isfahan Oil Refinery	Sep 01 to Mar 02	6
Thailand (Bangkok Synthetics Co., Ltd.)	Utilization of waste gas from petrochemical complexes	Aug 01 to Mar 02	5
Myanmar (MPE)	Tanlin Oil Refinery energy conservation	Aug 01 to Mar 02	1

Dispatch of Specialists for the NEDO Entrusted "Model Project for Improvement of Energy Efficiency"

Country	Subject	Period	No. of specialists
Indonesia (Pertamina)	Energy conservation at oil refinery	Oct 01 to Mar 02	2