

## Steps in Environmental Protection Activities

Cosmo Oil Group	
<b>1986</b>	<p>Cosmo Oil Co., Ltd. established</p> <p>Establishment of the Environment and Safety Control Department at company headquarters, Environment and Safety Offices at oil refineries</p> <p>Establishment of Environment and Safety Administration Rule and Environment and Safety Countermeasures Headquarters Rule</p> <p>Start of setting up and implementing annual environment and safety targets starting with "No Accident and No Disaster through the Involvement of All Employees" and "Be Creative for Environmental Protection"</p> <p>Start of annual environment and safety inspections at oil refineries and oil storage depots in accordance with Environment and Safety Inspection Procedure</p>
<b>1987</b>	Completion of the FCC exhaust gas desulfurization unit at Sakai Oil Refinery
<b>1988</b>	Start of spent grain drying business at Sakai Oil Refinery
<b>1989</b>	
<b>1990</b>	Completion of cogeneration facilities at Yokkaichi Oil Refinery
<b>1991</b>	Dispatch of oil spill prevention expert team to the Persian Gulf
<b>1992</b>	<p>Installation of atmospheric distillation flue gas denitration unit at Sakai Oil Refinery</p> <p>Installation of spent grain drying unit at Chiba Oil Refinery</p>
<b>1993</b>	<p>Global Environment Action Program devised and submitted to the Ministry of International Trade and Industry</p> <p>Global Environmental Committee Rule, following Establishment of Global Environment Committee</p>
<b>1994</b>	<p>The First Global Environment Committee meeting held, to be held annually thereafter</p> <p>Annual target "Challenging Global Environmental Problems" set up</p> <p>Completion of diesel fuel desulfurization unit at Chiba Oil Refinery</p>
<b>1995</b>	<p>Completion of cogeneration facilities at Sakai Oil Refinery</p> <p>Sakai Oil Refinery receives Director-General of National Resources and Energy Award for its excellent industrial energy management</p> <p>Introduction of industry-first 24-kiloliter tank truck</p> <p>Comprehensive Disaster Countermeasures Rule and Detailed Comprehensive Disaster Countermeasures Rule established (superceding existing rule and detailed regulations)</p>
<b>1996</b>	<p>"Report on the Follow-up Results of Environmental Action Plan" prepared and submitted to the Ministry of International Trade and Industry</p> <p>Completion of cogeneration facilities at Chiba Oil Refinery</p> <p>Completion of diesel fuel deep desulfurization unit at Sakai Oil Refinery</p>
<b>1997</b>	<p>Nakhodka Oil Spill Support Team established in response to a major oil spill on the Japan Sea coast by the Russian tanker, Nakhodka</p> <p>Sakaide Oil Refinery obtains ISO14001 certification</p> <p>Start of environmental impact assessment at Cosmo Oil's Yokkaichi Kasumi Electric Power Plant (IPP)</p> <p>Sakaide Oil Refinery receives Energy Conservation Center Chairman's Prize</p>
<b>1998</b>	<p>Introduction of double-hull charter tanker</p> <p>ISO14001 certification obtained at Chiba Oil Refinery, Yokkaichi Oil Refinery, Sakai Oil Refinery and Cosmo Matsuyama Oil Co., Ltd.</p> <p>Completion of gasoline benzene reduction unit</p> <p>Completion of No. 2 atmospheric distillation unit heating denitrication unit at Chiba Oil Refinery</p>
<b>1999</b>	<p>Release of Terra series of biodegradable lubricating oil</p> <p>Release of Shinsei non-chlorine diesel engine oil</p>
<b>2000</b>	<p>Start of full-scale development of oil-based fuel cell</p> <p>Sakaide Oil Refinery receives Director-General of National Resources and Energy Award</p> <p>Opening of Cosmo Customer Center</p> <p>Industrial Waste Management Rule established</p>
<b>2001</b>	<p>Publication of "Cosmo Oil Environmental Report 2001"</p> <p>Chiba Oil Refinery receives the Minister of Health, Labor and Welfare Commendation</p> <p>Cosmo Oil receives the "Award for Excellent Companies" in the "11th Grand Prize for the Global Environment Award" (organized by Ministry of Education, Fuji Sankei Group, etc. in collaboration with World Wildlife Fund Japan)</p> <p>Cosmo Oil receives third prize in the "5th Green Reporting Award" (jointly hosted by Toyo Keizai, Inc. and Green Reporting Forum)</p> <p>Yokkaichi Oil Refinery receives the "Director-General of Fire-Defense Agency Award" at the "Convention on Hazardous Materials"</p>



Diesel fuel desulfurization unit



SQ product quality mark



Nakhodka oil spill

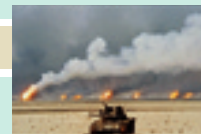
## Petroleum Industry

## Society

The Law Concerning Provisional Measures for the Import of Specific Petroleum Products enacted  
All premium gasoline replaced by lead-free gasoline

Adoption of the Montreal Protocol, the treaty for the protection of the ozone layer

Exxon Valdez oil spill off the coast of Alaska



Gulf War begins  
Massive oil spills in the Persian Gulf  
Keidanren Global Environmental Charter formulated and adopted

Gulf War: Oil spills on the Persian Gulf result in major environmental damage.  
Photo: oil wells in flames

Reduction of sulfur content in diesel fuel to less than 0.2 percent

United Nations Framework Convention on Climate Change signed  
United Nations Conference on the Environment and Development (Earth Summit) held  
Request for preparation of Environmental Voluntary Plan by the Ministry of International Trade and Industry

The Basic Environment Law enacted

The United Nations Framework Convention on Climate Change enters into force  
Cabinet decision on The Basic Environment Plan

The First Conference of the Parties to the United Nations Framework Convention on Climate Change (COP1) held in Berlin  
The Great Hanshin-Awaji Earthquake

Large tanker truck, 15 meters long, 24 kiloliter capacity

Petroleum Association of Japan prepares "Control Program on Poisonous Air Pollution Substances"  
Law of Import Restriction on Specific Petroleum Products repealed  
Reduction of benzene content in gasoline to less than five volume percent

ISO 14001, an international standard for environmental management system, published  
The Second Conference of the Parties to the United Nations Framework Convention on Climate Change (COP2) held in Geneva  
Enforcement of Law on the Quality Control of Gasoline and Other Fuels  
Decision on Keidanren Appeal on Environment – Declaration on Voluntary Action of Japanese Industry Directed at Conservation of Global Environment in the 21st Century



Negotiation on the reduction of greenhouse gases at COP3, Kyoto

Reduction of sulfur content in diesel fuel to less than 0.05 weight percent  
Petroleum Association of Japan prepares "The Self-Active Action Program for Global Environmental Conservation"

Nakhodka oil spill  
Amendment of Law concerning the Rational Use of Energy  
Amendment of Waste Disposal and Public Cleaning Law  
Environmental Impact Assessment Law enacted, followed by the revision of Electric Utilities Industry Law  
Petroleum Association of Japan prepares "The Self-Active Action Program for Global Environmental Conservation", following the Keidanren Appeal  
The Third Conference of the Parties to the United Nations Framework Convention on Climate Change (COP3) held in Kyoto

Lift of the ban on self-service stations

Decision on Guideline of Measures to Prevent Global Warming  
Law Concerning the Promotion of Measures to Cope with Global Warming enacted  
The Fourth Conference of the Parties to the United Nations Framework Convention on Climate Change (COP4) held in Buenos Aires



Cosmo Oil's self-service station

First Follow-up of Keidanren Voluntary Action Plan on the Environment  
Law Concerning Reporting of Releases to the Environment of Specific Chemical Substances and Promoting Improvements in their Management (the PRTR Law) enacted  
Law Concerning Special Measures against Dioxins enacted  
Fifth Conference of the Parties to the United Nations Framework Convention on Climate Change (COP5) held in Bonn

Benzene levels in gasoline reduced to less than one volume percent

Sixth Conference of the Parties to the United Nations Framework Convention on Climate Change (COP6) held in the Hague  
The Basic Law for Establishing the Recycling-based Society enacted  
Law Concerning the Promotion of Procurement of Eco-friendly Goods and Services by the State and Other Entities enacted  
Amendment to Waste Disposal and Public Cleaning Law

Vapor pressure of gasoline during summer lowered to 72 kPa

Seventh Conference of the Parties to the United Nations Framework Convention on Climate Change (COP7) held in Marrakech  
Law Concerning Special Measures against PCB Waste enacted  
Central Environment Council issues recommendation on soil conservation method