THE MINERAL INDUSTRY OF

NETHERLANDS

By Harold Newman

In terms of world production, the Netherlands was not a major producer of metallic or nonmetallic minerals or mineral products; however, it was very important as a regional producer of natural gas and petroleum for the European market and played a major role as a transshipment center for mineral materials entering and leaving continental Europe.

Rotterdam, in particular, remained extremely important as a shipping and storage center. With the ever expanding inland transportation systems, goods entering or leaving Rotterdam can originate in or be destined for almost anywhere in continental Europe. However, the facilities at Rotterdam and surrounding area could not accomodate any increase in traffic without upgrading and expansion.

Environmental policy in the Netherlands was the responsibility of the Ministry of Housing, Planning, and the Environment, and protecting and upgrading the quality of the environment was of high priority to the citizens of the Netherlands. In addition to protecting the environment, the Dutch were also concerned with remedying the practices of the past.

Production of mineral commodities generally remained the same or dropped slightly during 1995. The high cost of social benefits contributed to the production costs of Dutch products making them less competitive on the world market. Government proposals to limit social security and health spending in order to help stimulate job growth and the economy in general were met with great resistance by the general public. *(See table 1.)*

Trade data for 1994 and 1995 were not available for the compilation of this report, however little was expected to have changed from previous years, except for volume and value. Based on value, the five main destinations for exports and reexport from the Netherlands in 1993 were Germany, Belgium/ Luxembourg, France, the United Kingdom, and Italy, respectively. The United States was sixth on the list of destinations for exports and reexports. In 1993, the five main sources of all imports were, based on value, Germany, Belgium/Luxembourg, the United Kingdom, the United States, and France, respectively.

Trade balances in 1993 with leading trading partners in million dollars were: Germany (+) 10,745; Belgium/Luxembourg (+) 2,828; the United States (-) 4,485; the United Kingdom (+) 987; and France (+) 5,303.

The only mining operations left in the Netherlands in 1995 were the extraction of peat, salt, and sand and gravel. The metal processing sector relied almost exclusively on imported raw materials, not only ores and concentrates, but also on scrap and refined and unrefined metals. *(See table 2.)*

Production of primary aluminum in the Netherlands by Hoogovens Aluminium BV had been declining steadily for the past few years while the growth of the secondary aluminum industry has been increasing. The production of secondary aluminum consumes about 5% of the energy required to produce primary aluminum.

Hoogovens investigated the possibility of building its own powerplant to serve its aluminum and steel operations. A study had indicated that the organization could save as much as 20% on its energy costs if it were to build a 1,000-megawatt powerplant. This would be equivalent to 6% of the country's electricity capacity.

The steel division of the Hoogovens Group, Hoogovens IJmuiden BV, was Europe's sixth largest steel producer. The company's reorganization plan took effect in mid-1995. The steel division was divided into five separate business-oriented organizations, each responsible for its own financial results. In addition to the marketing, sales, and production units, a product/market unit was created to focus more attention on customer-driven innovation. To increase the international spread of the market, an International Business Development directorate was set up during this reorganization to build up sustainable positions on growth markets outside of Europe.

Natural gas was the most important mineral fuel produced in the Netherlands. In addition to domestic consumption, the gas was exported and provided the equivalent of about US$4 billion each year in export sales. The gas was produced from 30 offshore facilities in the North Sea and 20 onshore facilities. Gasunie, the gas distribution organization, announced that companies would now be allowed to deplete gasfields over 10 years instead of the previous 14 years and at a maximum load factor of 90% instead of the previous 67%.

Also, the Dutch Government announced that new rules would be in effect for the 1995 round of offshore exploration licensing. The new rules lowered the state's share in production licenses from 50% to 40% and no royalties would be levied on any new production if gas output was below 800 million cubic meters. Companies claimed that the new measures would not be effective in boosting exploration

because they applied only to new licenses and not to those already existing. Energy company applicants were to be requested to submit a geologic report and to sign a pact with the Government on environmental protection.

In October 1995, the Dutch Parliament passed a bill to introduce an energy tax. The tax would be imposed on the use of electricity and a number of other fuels, but not on fuels used for transport, renewable energy sources, and fossil fuels used for cogeneration of heat and power. Large-scale energy users, which may include metal- production and processing facilities, may negotiate exemptions from the Government, or may find it more cost-effective to receive electricity from a supplier who uses renewable energy sources for which a lower taxation rate is applied.

TABLE 1
NETHERLANDS: PRODUCTION OF MINERAL COMMODITIES 1/

(Metric tons unless otherwise specified)

Commodity 2/		1991	1992	1993	1994	1995 e/
METALS						
Aluminum metal:						
Primary		264,000	235,000	229,000 r/	219,382	220,000
Secondary		114,000 3/	151,000 3/	150,000 3/	175,300 e/	191,500
Cadmium metal, primary		549	594	526	307	300
Iron and steel:						
Ore, sintered (from imported ore) e/		3,950,000 4/	4,100,000	4,000,000 r/	3,021,500	4,246,400
Metal:						
Pig iron including blast-furnace ferroalloys (if any)		4,696,500	4,849,000	5,404,000	5,443,400	5,560,100
Steel:						
Crude		5,171,000	5,439,000	6,001,000	6,174,000	6,409,000
Semimanufactures e/		4,910,000 4/	5,194,000	5,812,000	5,948,000	5,500,000
Lead metal, refined, secondary		33,700	24,300 r/	24,200	25,000 e/	25,000
Tin metal:						
Primary		4,800	--	--	--	--
Secondary		200	200	--	--	--
Total		5,000	200	--	--	--
Zinc metal, primary		211,082 r/	218,410 r/	206,700 r/	212,600	210,000
INDUSTRIAL MINERALS						
Cement, hydraulic		3,546,000	3,300,000	3,400,000 e/	3,400,000	3,400,000
Magnesium compounds: e/						
Chloride		126,000 4/	125,000	125,000	140,000	125,000
Oxide		90,000	90,000	90,000	100,000	100,000
Nitrogen, N content of ammonia		3,030,000	2,590,000	2,470,000 r/	2,500,000 e/	2,500,000
Salt, all types		3,420,000	3,630,000	3,500,000 e/	3,500,000 e/	3,500,000
Sand, industrial e/		25,000,000	20,000,000	20,000,000	25,005,900	23,159,900
Sodium compounds, n.e.s.: e/						
Carbonate, synthetic		400,000	400,000	400,000	400,000	400,000
Sulfate:						
Natural		22,000	22,000	20,000	20,000	20,000
Synthetic		15,000	15,000	15,000	15,000	15,000
Sulfur: e/						
Elemental byproduct:						
Of metallurgy		125,000	125,000	125,000	125,000	125,000
Of petroleum and natural gas		290,000	290,000	290,000	300,000	300,000
Total		415,000	415,000	415,000	425,000	425,000
Sulfuric acid, 100% H_2SO_4		1,150,000	1,150,000	1,150,000	1,250,000	1,250,000
MINERAL FUELS AND RELATED MATERIALS						
Carbon black e/		111,000 4/	110,000	100,000	110,000	100,000
Coke, metallurgical		2,930,000	2,920,000	2,900,000	2,750,000 e/	2,800,000
Gas:						
Manufactured e/	million cubic meters	-- 4/	9,500	9,500	10,000	10,000
Natural:						
Gross	do.	82,600	82,000	83,100 r/	78,400	80,000
Marketed	do.	81,700	81,800	83,000 e/	77,400 e/	80,000
Natural gas liquids	thousand 42-gallon barrels	165,000	165,000	170,000	170,000	170,000
Peat, agricultural e/		300,000	300,000	300,000	300,000	300,000
Petroleum:						
Crude	thousand 42-gallon barrels	--	19,400	18,200 r/	23,500	20,000
Refinery products:						
Liquefied petroleum gas	do.	--	31,300	--	36,100	36,000
Mineral jelly and wax e/	do.	401 4/	600	600	600	600
Gasoline, motor	do.	100,000	73,500	74,000 e/	75,000 e/	75,000
Naphtha and white spirit	do.	100,000	83,100	100,000	84,200	85,000
Jet fuel	do.	38,000	39,800	39,000	44,200	40,000
Kerosene	do.	--	1,780	--	1,520	1,600
Refinery gas e/	do.	20,800 4/	21,200	21,200	22,000	20,000
Lubricants	do.	4,000	3,490	3,500 e/	3,750 e/	3,800
Residual fuel oil	do.	--	98,000	99,100 r/	84,400	85,000
Bitumen	do.	--	4,380	4,400	4,400 e/	4,500
Unspecified e/	do.	25,000	25,000	25,000	25,000	25,000
Total e/	do.	288,201	382,150	366,800	381,170	376,500

e/ Estimated. r/ Revised.

1/ Table includes data available through Apr. 1, 1996.

2/ In addition to the commodities listed, the Netherlands produces construction materials such as sand and gravel, but output is not reported and no basis exists to make reliable estimates of output.

3/ Sales.

4/ Reported figure.

TABLE 2
NETHERLANDS: STRUCTURE OF THE MINERAL INDUSTRY FOR 1995

(Thousand metric tons unless otherwise specified)

Commodity		Major operating companies	Location of main facility	Annual capacity
Aluminum, primary		Hoogovens Aluminium BV	Smelter at Delfzijl	219
Do.		Pechiney Nederland BV	Smelter at Vlissingen	178
Cadmium	tons	Budelco BV (Australian Overseas Smelting Pty. Ltd, 50%; Kempensche Zinkmaatschappij Zincs de la Campine BV, 50%)	Plant at Budel-Dorplein	650
Cement		ENCI Nederland BV (Eerste Nederlandse Cement Industrie NV)	10 plants at Maastrict	2,700
Do.		Cementfabriek IJmuiden BV	3 plants at IJmuiden	1,600
Do.		Cementfabriek Rozenburg BV	2 plants at Rozenburg	920
Lead		Hollandse Metallurgische Industrie Billiton BV	Electrolytic plant at Arnhem	35
Do.		Billiton Witmetaal BV	Electrolytic plant at Naarden	6
Magnesia		Billiton Refractories BV	Plant at Veendam	100
Do.		MAF Magnesite BV	Plant at Vlaardingen	40
Natural gas	million cubic meters per day	Nederlandse Aardolie Maatschappij BV (NAM)	Groningen, Leeuwarden, Assen, and other onshore gasfields and several offshore wells in the North Sea	225
Petroleum, crude	barrels per day	AMOCO, CONOCO, and UNOCAL	766 wells (204 producing) including: North Sea fields: Haven, Helder, Helm, Hoorn, Kotter, Logger, and Rijn	83,500 (63,000)
Do.	do.	NAM	Onshore fields: Berkel, DeLier, Ijselmonde, Meerkapelle, Pernis West, Pinacke, Rotterdam, Schoonebeck, Werkendam, and Zoetemeer	(20,500)
Refineries		6 companies, of which the major ones are:		1,230,500
Do.	do.	Netherlands Refining Co.	Refinery at Rotterdam	(446,000)
Do.	do.	Shell Nederland Raffinaderij BV	Refinery at Pernis	(374,000)
Do.	do.	Esso Nederland BV	Refinery at Rotterdam	(175,000)
Do.	do.	Total Raffinaderij Nederland NV	Refinery at Vlissingen	(150,000)
Salt		Akzo Salt and Basic Chemicals BV	Mines at:	4,000
			Hengelo	(2,000)
			Delfzijl	(2,000)
Sodium:				
Carbonate, synthetic		do.	Plant at Delfzijl	380
Sulfate, synthetic		do.	do.	600
Steel		Hoogovens IJmuiden BV	Plant at IJmuiden	6,100
Zinc		Budelco BV (Pasminco Europe BV, 50%; Kempensche Zinkmaatschappij Zincs de la Campine, 50%)	Plant at Budel-Dorplein	215