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RE: Chlor-Alkali Partnership – Data 2006

September 18, 2007

Dear Brenda,

In response to the UNEP request regarding progress on Governing Council Decision related to mercury, please find attached the World Chlorine Council's report on 2006 mercury emissions and consumptions in the chlor-alkali industry located in Europe (EU + Norway + Switzerland) India, Russia, South America, USA and Canada. Data have been previously reported (January 12, 2007) for 2002, 2003, 2004 and 2005. These data cover to the best of our information about 85% of the world chlorine production capacity based on mercury.

The consolidated data show a clear trend of significant reduction of the total emissions and consumption within the global chlor-alkali over the period 2002-2006 (see attached charts). The total emissions in 2006 amounted to 11035kg compared to 13797 kg in 2005. The number of plants decreased further to 74 (compared to 78 in 2005).

We hope that these WCC data will be useful for the upcoming OEWG meeting scheduled for November 12-16, 2007.

WCC looks forward to working with governments and other stakeholders in continuing to implement the Partnership and thereby effectively contribute to international efforts to reduce the use and release of mercury.

Sincerely Yours,

Dr Arseen Seys
WCC Managing Director

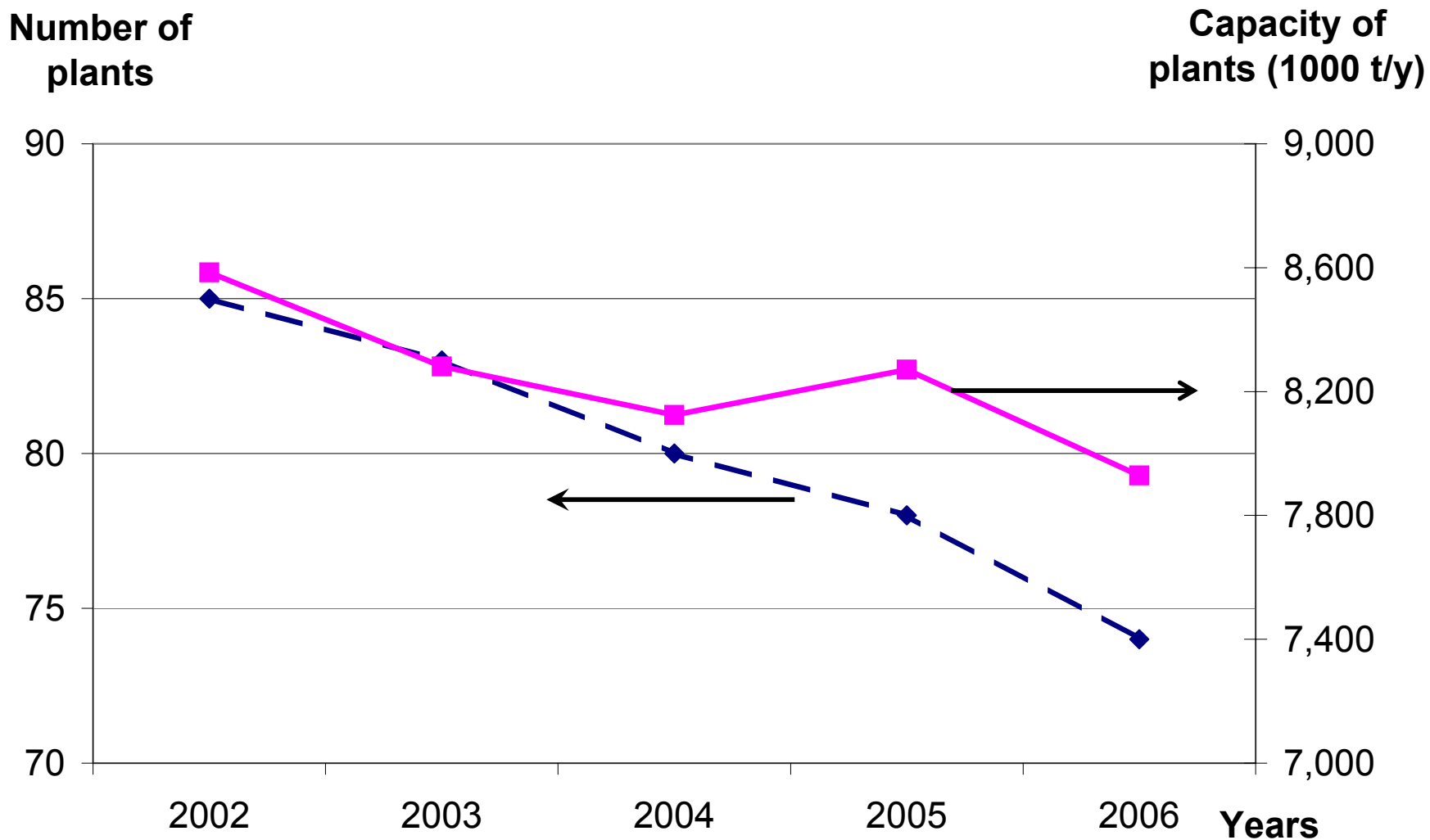
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WCC - Chlor-Alkali Industry

Number of plants and capacity of mercury electrolysis units
in USA/Canada, Europe, India and Brazil/Argentina
(+ 1 Uruguayan and 3 Russian plants from 2005 onwards)



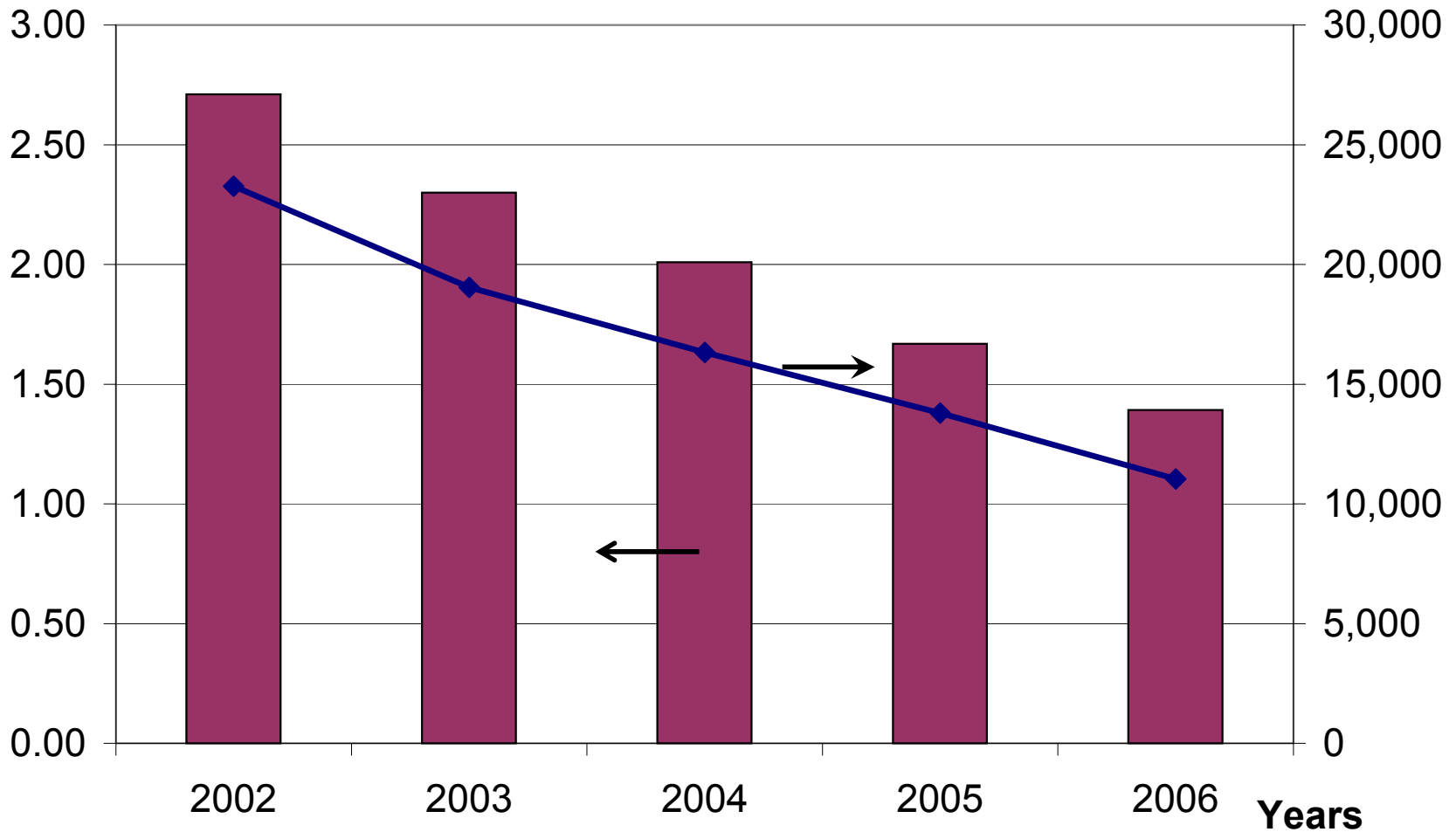
WCC - Chlor-Alkali Industry

Total mercury emissions (air + water + products)
for USA/Canada, Europe, India and Brazil/Argentina

(plus 1 Uruguayan and 3 Russian plants from 2005 onwards)

g Hg/t Cl₂
annual cap.

kg Hg/y



Evolution for USA/Canada + Europe + India + Brazil/Argentina (and 1 plant in Uruguay from 2005 onward plus 3 Russian plants from 2005 onwards)

Absolute values

Year	Hg plants	Capacity	Purchases /Sales	Consumption /Use	Emission to products	Emission to water	Emission to air	Total emissions	Solid waste
	Number	In 1000 t Cl ₂ /y	kg Hg /y	kg Hg /y	kg Hg /y	kg Hg /y	kg Hg /y	kg Hg /y	kg Hg /y
2002	85	8,584	688	249,944	*(1)	821	*(1)	23,265	*(1)
2003	83	8,281	402,444	205,274	2,402	820	15,821	19,043	129,730
2004	80	8,124	263,511	159,806	1,448	657	14,217	16,321	69,601
2005	78	8,271	227,470	176,706	1,361	774	11,662	13,797	116,257
2006	74	7,929	70891	162049	1115	555	9365	11035	173,424

*(1) no data reported for the Indian plants

without Russian plants data

Relative values (/t chlorine capacity)

Year	Hg plants	Capacity	Purchases /Sales	Consumption /Use	Emission to products	Emission to water	Emission to air	Total emissions	Solid waste
	Number	In 1000 t Cl ₂ /y	g Hg /t Cl ₂	g Hg /t Cl ₂	g Hg /t Cl ₂	g Hg /t Cl ₂	g Hg /t Cl ₂	g Hg /t Cl ₂	g Hg /t Cl ₂
2002	85	8,584	0.08	29.12	*(1)	0.10	*(1)	2.71	*(1)
2003	83	8,281	48.60	24.79	0.29	0.10	1.91	2.30	15.67
2004	80	8,124	32.44	19.67	0.18	0.08	1.75	2.01	8.57
2005	78	8,271	27.50	21.36	0.16	0.09	1.41	1.67	14.06
2006	74	7,929	8.94	20.44	0.14	0.07	1.18	1.39	21.87

*(1) no data reported for the Indian plants

without Russian plants data

WCC - Chlor-Alkali Industry
Mercury consumption and emissions in kg/year (absolute data)

Production year: 2006									
Country or Area	Hg plants	Capacity	Purchases /Sales	Consumption /Use	Emission to products	Emission to water	Emission to air	Total emissions	Solid waste
	Number	In 1000 t Cl ₂ /y	kg Hg /y (- if sold)	kg Hg /y	kg Hg /y	kg Hg /y	kg Hg /y	kg Hg /y	kg Hg /y
Europe	44	5,413	21,970	122,763	412	493	4,805	5,710	143,017
United States of America + Canada	9	1,282	27,372	13,179	128	40	2,618	2,786	5,562
India	11	383	2,622	11,134	57	0	240	297	1,657
Brazil + Argentina (1 plant) + Uruguay (1 plant)	7	449	18,927	14,973	49	12	1,566	1,627	5,071
Russia	3	402	*(3)	*(3)	469	10	136	615	18,117
Total	74	7,929	70,891	162,049	1115	555	9,365	11,035	173,424

*(3) no data reported for one Russian plant

WCC - Chlor-Alkali Industry
Mercury Consumption and Emissions in g Hg / t chlorine annual capacity

Production year: 2006									
Country or Area	Hg plants	Capacity	Purchases /Sales	Consumption /Use	Emission to products	Emission to water	Emission to air	Total emissions	Solid waste
	Number	In 1000 t Cl ₂ /y	g Hg / t Cl ₂ (- if sold)	g Hg / t Cl ₂	g Hg / t Cl ₂	g Hg / t Cl ₂	g Hg / t Cl ₂	g Hg / t Cl ₂	g Hg / t Cl ₂
Europe	44	5,413	4.06	22.68	0.08	0.09	0.89	1.05	26.42
United States of America + Canada	9	1,282	21.35	10.28	0.10	0.03	2.04	2.17	4.34
India	11	383	6.85	29.07	0.15	0.00	0.63	0.78	4.33
Brazil + Argentina (1 plant) + Uruguay (1 plant)	7	449	42.15	33.35	0.11	0.03	3.49	3.62	11.29
Russia	3	402	*(3)	*(3)	1.09	0.02	0.32	1.43	42.13
Total	74	7,929	8.94	20.44	0.14	0.07	1.18	1.39	21.87

**(3) no data reported for one Russian plant*

Explanation of the table

Number Hg plants: number of electrolysis production units in activity using the mercury technology.

Capacity: nameplate chlorine production capacity according to authorisations (expressed in thousands metric tonnes chlorine per year).

Mercury data: the quantities of mercury are expressed in kilograms per year.

Purchases / Sales: quantity of mercury coming in or leaving (negative value) the production site (from or to other sites of the same company, other companies, traders, suppliers ...). If the mercury comes from a unit already closed, even on the same production site, it will also be considered as "Purchase". The quantity of mercury contained in solid waste sent to **external** treatment units for metal recovery will be considered here as "Sales"; if (and when) recovered metallic mercury is reintegrated back in the production site, the corresponding quantity will then be considered as "Purchases".

Consumption / Use: mercury added to the production cells and circuits (negative value if removed) to keep the amount of mercury contained in the cells and circuits at the same constant level (structurally immobilised in the process); this value correspond to the "Purchases /Sales" figure corrected to remove the effect of mercury inventory variation in the warehouse of the site, and/or any voluntary change in the installation inventory (cells ...). A comment has to be added is there is a voluntary increase or decrease of the inventory.

Emission to air: quantity of mercury emitted to the air (including process exhaust, hydrogen vented or burned, diffuse emissions from cell room ...).

Emission to water: quantity of mercury emitted with the water effluents leaving the production unit (after treatment).

Emission with products: quantity of mercury emitted with the products (mainly caustic soda/potash and hydrogen used as chemical); this does not include the hydrogen vented or burned. If mercury emission with HCl, hypochlorite ... is separately accounted, care must be taken to avoid double counting (with mercury in hydrogen, caustic ...).

Total emissions: sum of emissions to air, water and with products.

Solid waste to deposit: estimation/measure of the quantity of mercury included in the solid waste sent to final waste disposal (internal or external). The mercury contained in the waste waiting for recovery treatment or to be sent to final disposal, and temporarily stored on the site, will still be considered as being part of the site inventory for this reporting.

Difference to balance: this calculated value (not indicated in the tables) corresponds to the difference between the consumption and the sum of the total emissions (air, water, products) and the mercury in the waste sent to final disposal; it integrate the inaccuracies of the measures and the mercury accumulated in the installation but not measured.