

Contents

Foreword	3
I. BASIC INFORMATION	7
1. Introduction	7
2. Basic characteristics, occurrence, and use of the individual POPs obligations ensuing from the Stockholm Convention	7
II. POPs IN THE ENVIRONMENT	10
3. Impact of POPs on human health and monitoring of the state of health of the Czech population	10
3.1 Impact of POPs on human health	10
3.2 Exposition of the population to POPs	11
3.3 Biological monitoring of the Czech population	11
3.4 Contamination of foodstuffs	16
4. POPs in ecosystems	19
4.1 Air	19
4.2 Soil	22
4.3 Waters	26
4.3.1 DDT	27
4.3.2 Aldrin, dieldrin, endrin (drins)	27
4.3.3 HCHs	27
4.3.4 HCB	28
4.3.5 PCBs	28
4.3.6 PCDD/Fs	29
4.3.7 PBDEs	30
4.3.8 SCCPs (chlorinated alkanes C 10 - 13)	31
III. SOURCES OF POLLUTION AND POPs RELEASES INTO THE ENVIRONMENT	32
5. Old environmental burdens	32
5.1 Economic costs for decontamination of old environmental burdens	34
5.2 Decontamination of dioxin burden in Spolana Neratovice	36
6. Newly created environmental burdens	37
6.1 Wastes as a source of POPs contamination of the environment	38
6.2 Case studies of management of wastes containing PCBs in the Czech Republic	42
6.2.1 Case of municipal waste incinerator Termizo Liberec – the problem of certification of products made of waste from incinerators	42
6.2.2 Case of mine Jan Šverma near Žacléř	43
6.2.3 Case of SAKO Brno and case Mydlovary	44
7. Integrated pollution register as a source of information on POPs releases	45
7.1 Results of analysis of data from the IPR	45
7.2 Recommendations ensuing from analysis of the IPR concerning POPs	47

8. Assessment of sources of POPs emissions in the Czech Republic - is it feasible?	48
8.1 Basic information on inventory of POPs emissions	48
8.2 Current state of emission inventory	50
8.3 Development and changes of emission inventories of POPs releases into air	51
8.4 Comments to the inventory of POPs releases	53
8.5 POPs releases in wastes and waste water	54
8.5.1 Case study: Calculation of releases of PCDD/Fs contained in wastes produced by the incinerator into the environment on example of the Liberec MWI	54
8.5.2 Estimate of total amount of dioxins in wastes produced by incinerators in the Czech Republic	56
8.5.3 Brief conclusion	58
8.6 Concluding recommendations concerning the inventory of releases of POPs from Annex C of the Stockholm Convention	58
9. Development in the field of waste incineration	59
 IV. STOCKHOLM CONVENTION IMPLEMENTATION	 60
10. State of implementation of the Stockholm Convention, participation of NGOs in preparation of the NIP, and development of their activities relating to POPs	60
11. Proposals of measures	61
 ANNEXES	 64
Annex 1. Profiles of the individual substances and groups thereof	64
Annex 2. Available emission factors for PCDD/Fs, PCBs, and HCB	100
Annex 3: Common position paper of local authorities and NGOs on the National Implementation Plan of the Stockholm Convention and its further implementation	108
Annex 5: Case study of old environmental burdens: Klatovy - Luby - former pesticide storage	114
 List of abbreviations	 116
List of references to used literature and sources of information	118