



An EU funded project

Development of the Special waste stream plan SWSP for wastes containing POPs

2nd Workshop
7th of December 2016

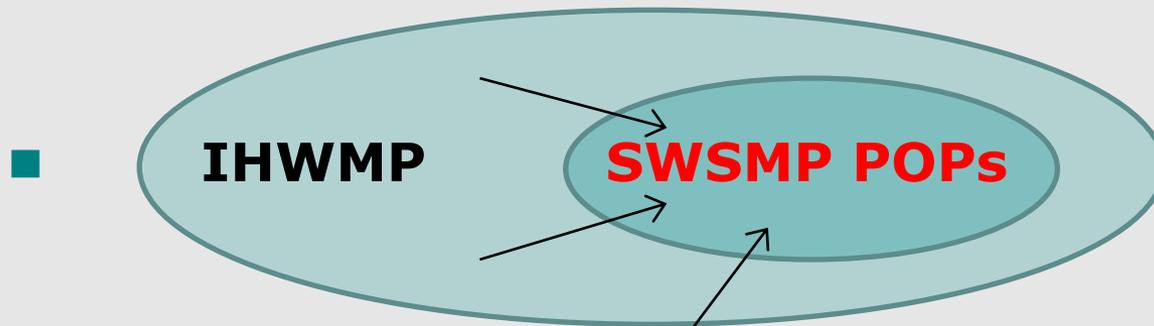
Legal basis and basic documents

- **Stockholm Convention and POPs-Protocol on CLRTAP**
 - Republic of Serbia is party
 - EU is party
 - Implementation is needed
- **EU-Regulation 850/2004 on POPs**
 - Definition, stockpiles are waste, report duty > 50 kg, specific requirements on POPs waste
 - Latest amendment EU-Regulation 2016/460
- **EU-Directives**
 - Waste Framework Directive 2008/98 (classification, waste oil)
 - Directive 96/59/EC on the disposal of PCB/PCT
- **Law on Waste Management, Law on Chemicals**
 - national implementation, ratification
- **Article 11 Waste Law: Provisions for WMPs**
 - National IHWMP (finalised within the Twinning project)
 - 5 years valid
 - All hazardous waste streams covered including POPs waste
 - National SWSM plan for POPs waste

Legal basis and basic documents

- **PBT substances (HBCD), vPvB substances acc. to Annex XIII REACH**
- **required for classification as SVHC substances (candidates: HBCD, SCCP, Deca-BDE, PFOA) transformation into Annex XIV REACH (HBCD)**
- **Technical-Guidelines of the Basel Convention/UNEP**
 - **General technical guideline on POPs (07/2015), umbrella guide**
 - **On Pesticides (BC 12/3, 07/2015)**
 - **On DDT (06/2007)**
 - **On PCB, PCT, HBB (07/2015)**
 - **On unintentionally produced POPs (07/2015)**
 - **On HBCD (07/2015)**
 - **On PBDE (07/2015)**
 - **On PFOS (07/2015)**

Legal basis and basic documents



- **National Implementation Plan Stockholm Convention**

- Updated 2015
- Elaboration of a current inventory
- Amount of POPs and POPs wastes
- Derivation of proper waste management activities

- ...

Drafting of the SWSP for wastes containing POPs

■ Three workshops:

- General considerations for the planning process and on the current status; 18th of November 2015

■ Break

- Restart 7th of November 2016

■ Today workshop II

- Workshop III 8th week 2017

- Finalising POPs WMP 14th week 2017



Drafting of the SWSP for wastes containing POPs

- **Structure of the POPs WMP according to the IHWMP**
 - **Introduction (Overall waste problematic; Role of the plan in waste management planning...)**
 - **Legal framework for the management of wastes containing POPs (international and European policy; Serbian policy)**
 - **Institutional Set-up (Ministry; SEPA; environmental inspection; Statistics; testing...)**
 - **Current status of POPs waste management (quality; quantity)**
 - **Collecting and disposal systems**
 - **Forecast of POPs wastes**
 - **Assessment of needs for waste management structure**
 - **Financing**
 - **Objectives and action plan**

Legal requirements on POPs waste

POP	Ann. A Elimination	Ann. B restriction	Ann. C unintent.	remarks	pesticide	industrial chemical	unintentional product
The "Dirty Dozen"							
Aldrin	X				X		
Chlordane	X				X		
Dieldrin	X				X		
Endrin	X				X		
Heptachlor	X				X		
Hexachlorobenzene	X		X		X	X	X
Mirex	X				X		
Toxaphene	X				X		
PCBs	X		X			X	X
DDT		X			X		
PCDD/PCDF			X				X
New POPs							
Chlordecone	X			SC-4/12	X		
HCH and Lindane	X			SC-4/10 SC-4/11 SC-4/15	X		
Te-, Pe-, Hx-, HpBDE	X			SC-4/18 SC-4/14		X	
Pentachlorobenzene	X		X	SC-4/16	X	X	X
PFOS		X		SC-4/17		X	
Hexabromobiphenyl	X			SC-4/13		X	
Endosulfans	X			SC-5/3	X		
Hexachlorobutadiene	X			SC-7/12		X	
PCN	X		X	SC-7/14		X	X
SCCP	only proposed for listing under the Stockholm Convention						
HBCD	X			SC-6/13		X	
PCP	X			SC-7/13	X		

Legal requirements on POPs waste

■ Art. 7 of Regulation 850/2004

- **Destruction of POP-compartments very limited acc. to Annex V:**
 - **R1/D10** (energetical recovery/thermal disposal), grate, rotary kiln
 - **D9** (chemical-physical treatment),
 - **R4** (metal recovery, restricted on Fe- and NE-recovery from plants which meet the limit values on PCDD/PCDF from Incineration Directive 2000/76/EC)
- **in general destruction required above lower limit values acc. to Annex IV):**
 - **15 µg/kg** **PCDD/PCDF (TEQ)**
 - **10 mg/kg** **PCN**
 - **100 mg/kg** **Hexachlorobutadiene**
 - **1000 mg/kg** **Σ PBDE**
 - **1000 mg/kg** **HBCD (to be reviewed by the EC until 20.4.2019)**
 - **10000 mg/kg** **SCCP**
 - **50 mg/kg** **all others**

Legal requirements on POPs waste

- **Art. 7 of Regulation 850/2004**
 - **exceptional divergent non-destructive disposal up to upper limit values acc. to Annex V:**
 - 5 mg/kg PCDD/PCDF (TEQ)
 - 50 mg/kg PFOs, PCB
 - 1000 mg/kg HBCD, hexachlorobutadiene, PCN
 - 10000 mg/kg SCCP, Σ PBDE
 - 5000 mg/kg all others
 - **Condition: Permanent storage acc. requirements of landfill Directive in**
 - deep underground rocks,
 - salt mines,
 - **Landfills for hazardous wastes as solidified or stabilised waste**
 - **Proof that storage is environmental favourable compared with destruction**

Legal requirements on POPs waste

- **Classification of POPs waste as hazardous**
 - **Decision 2014/955 EU amending European List of Wastes**
 - **Annex, chapter „assessment and classification“**
Wastes containing PCDD/PCDF, DDT, chlordane, HCH including lindane, dieldrin, endrin, heptachlor, hexachlorobenzene, chlordecone, aldrin, pentachlorobenzene, mirex, toxaphene hexabromobiphenyl and/or PCB exceeding the concentration limits indicated in Annex IV to Regulation (EC) 850/2004 shall be classified as hazardous
 - **Other POPs (PBDE, PFOA, endosulfans, hexachlorobutadiene, PCN, SCCP, HBCD, in future PCP)?**

Legal requirements on POPs waste

■ POPs are persistent and able for bioaccumulation

Hazardous Properties of Wastes	
HP 1	Explosive
HP 2	Oxidising
HP 3	Flammable
HP 4	Irritant – skin irritation and eye damage
HP 5	Specific Target Organ Toxicity (STOT) and Aspiration Toxicity
HP 6	Acute Toxicity
HP 7	Carcinogenic
HP 8	Corrosive
HP 9	Infectious
HP 10	Toxic for Reproduction
HP 11	Mutagenic
HP 12	Release of an acute toxic gas
HP 13	Sensitising
HP 14	Ecotoxic
HP 15	Waste capable of exhibiting a hazardous property listed above not directly displayed by the original waste

Legal requirements on POPs waste

■ C+L inventory acc. to CLP-Regulation (ECHA)

Summary of Classification and Labelling

Harmonised classification - Annex VI of Regulation (EC) No 1272/2008 (CLP Regulation)

General Information

Index Number	EC / List no.	CAS Number	International Chemical Identification
602-043-00-6	200-401-2	58-89-9	linlane (ISO) γ-HCH or γ-BHC γ-1,2,3,4,5,6-hexachlorocyclohexane

ATP Inserted / Updated: CLP00
CLP Classification (Table 3.1)

Classification		Labelling			Specific Concentration limits, M-Factors	Notes
Hazard Class and Category Code(s)	Hazard Statement Code(s)	Hazard Statement Code(s)	Supplementary Hazard Statement Code(s)	Pictograms, Signal Word Code(s)		
Acute Tox. 3 *	H301	H301		GHS06 GHS09 GHS08 Dgr	M=10	
Acute Tox. 4 *	H312	H312				
Acute Tox. 4 *	H332	H332				
Lact.	H362	H362				
STOT RE 2 *	H373	H373 **				
Aquatic Acute 1	H400					
Aquatic Chronic 1	H410	H410				

Signal Words	Pictograms		
Danger			
	Skull and crossbones	Environment	Health hazard

Thank you

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and Energy Saxony-Anhalt**

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