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DOWF	J					
	Int	roduction				
PCBs Use and Application (US-EPA 1994)						
	PCBs Use	Pounds (mil)	Percentage			
	Capacitors	630	50.3			
	Transformers	335	26.7			
	Plasticizer	115	9.2			
	Hydraulic and Lubricants	80	6.4			
	Carbonless Copy Paper	45	3.6			
	Heat Transfer Fluid	20	1.6			
	Petroleum Additives	1	0.1			
	Miscellaneous Industrial Uses	27	2.2			
	Total	1,253	100			
				-		
				🔭 motivate our planet		















OWA							
Regulatory Overview							
Stockholm Convention – POPs Management							
Substance name	Annex	Substance name	Annex				
Perfluorooctanoic acid (PFOA) & related compounds	I	Chlordecone	I,IV				
Tetrabromodiphenyl ether	I,IV	Aldrin	I,IV				
Pentabromodiphenyl ether	I,IV	Pentachlorobenzene	I, III,IV				
Hexabromodiphenyl ether	I,IV	Polychlorinated Biphenyls (PCBs)	I, III,IV				
Heptabromodiphenyl ether	I,IV	Mirex	I,IV				
Bis(pentabromophenyl)ether	I,IV	Toxaphene	I,IV				
(decabromodiphenyl ether; decaBDE)		Hexabromobiphenyl	I,IV				
Perfluorooctane sulfonic acid and its derivatives	I,IV	Hexabromocyclododecane	I,IV				
DDT (1,1,1-trichloro-2,2-bis(4-chlorophenyl)ethane)	I,IV	Hexachlorobutadiene	I,III,IV				
Chlordane	I,IV	Pentachlorophenol and its salts and esters	I				
Hexachlorocyclohexanes, including lindane	I,IV	Polychlorinated naphthalenes	I,IV				
Dieldrin	I,IV	Alkanes C10-C13, chloro (short-chain chlorinated					
Endrin	I,IV	paraffins) (SCCPs)	1,1 V				
Heptachlor	I,IV	Polychlorinated dibenzo-p-dioxins and dibenzofurans					
Endosulfan	I,IV	(PCDD/PCDF)	,. v				
Hexachlorobenzene	I, III,IV	Polycyclic aromatic hydrocarbons (PAHs)	III				







PCBs I	nventory Result	s (>50 ppm)	
Year	PCBs Inventory*) (tons)	Data Source	Remarks
2014	22,878	Review & Update of National Implementation Plan for Stockholm Convention regarding POPs in Indonesia (Ministry of Environment)	PLN: 14,967 tons Other industry: 7,911 ton
2016	537	Phase-1 Extended PCBs Inventory (UNIDO)	9 Provinces (Jakarta, West Java, Central Java, East Java, Banten, Yogyakarta)
2020	••••	Phase-2 Extended PCBs Inventory (UNIDO)	In progress for other provinces





























PCBs Waste Treatment/Disposal						
Safety & Environmental Control & Monitoring						
Measures for Air Contamination	<ul> <li>exhaust from vacuum pumps are pre-treated by activated carbon as a safety net before released.</li> <li>exhaust from dismantling area is pre-treated by activated carbon before released.</li> <li>Negative pressure operations</li> </ul>					
Measures to Pre Leakage	<ul> <li>Spill containment (drainage and sump pit)</li> <li>1% slope of the building floor</li> <li>Floors are coated with epoxy.</li> </ul>					
Emergency Mea	<ul> <li>sures</li> <li>automatic fire alarms,</li> <li>chemical fire extinguishers and</li> <li>fire hydrants</li> <li>motivate our planet</li> </ul>					



