

Chemicals and Waste Management Beyond 2020 Series.
Session 1. Sound Management of Chemicals and Waste: Practicing Green Chemistry

4 March 2021

Questions and Answers:

1. Question to Ms. Tingstorp: how is it to be matched (if possible) toxic Chemicals and circular economy? If residuals remain in the cycles?

Response: Thank you for your question! The toxic chemicals and circular economy do not match. The best thing is to work precautionary and not to add hazardous substances in the products. if there are there unavoidable hazardous substance, it's important to know what chemicals are there and then to remove them from the recycling.

2. Thank you for the presentations! What would be your broad recommendations on how a developing country can use the hazard assessments already completed in countries like Germany and Sweden to strengthen its own control of chemicals used in the country?

Response: Answered live, please refer to the webinar recording.

3. A large task for Circular economy (particularly in the economically important scrap metals recycling) is or will be how to handle D&F emissions that are released from the combination of plastics/paints in the scrap when smelting: how could it be addressed?

Response: Answered live, please refer to the webinar recording.

4. John Munthe, When you say a holistic approach to chemicals management and SDGs, what do you refer to?

Response: Thank you for your question: From my perspective the (rather vague) term holistic indicates that we need to consider the production and use of chemicals in the perspective of risks/hazards during the whole life cycle but also usefulness of the chemicals for individuals and society.

5. Thank you, Mr. John Munthe for your presentation. Pls is it possible for me to have a bilateral discussion with you on the Swedish experience in terms of PCBs removal and disposal. Thanks.

6. Response: Please send me an email - if I cannot answer myself I will find a colleague who can! john.munthe@ivl.se

7. To Mr. Helbig: What is status of the EU effort on grouping of chemicals for speeding up evaluation process? Do you think that can be a good example for annexing chemicals in global conventions e.g. Stockholm Convention?

Response: Answered live, please refer to the webinar recording.

8. John Munthe mentioned remediation of polluted sites. Such remediation can be very expensive in a developing country context. Is there any advice on options to raise the necessary funds for such important decontamination operations?
9. Response: Thank you. I am not an expert on funding issues, but I imagine that an important first step would be to assess the scale of the problem and estimate the risks to human health and environment. Sorry for lack of direct suggestions.
10. Question for Nguyen Mai Cuong: what are your strategies to ensure sustainability of the incentive mechanism beyond your project period? Thanks.

Response: In the project period we proposed a scheme for application of the incentive mechanism for green chemistry, from inquiry to approval and implementation. Through our project, stakeholders could directly support entities. But for sustainability of it, we have a plan to integrate the GC principles into the Viet Nam's national strategy on development of the chemical industry and the revised Chemical Law. In the Strategy and Law, we would like to integrate several incentive mechanisms, or it can be shown in documents under Law. Maybe It cannot be approved this year, but hopefully coming soon. If we succeed, the incentive mechanism will become sustainable.

11. to Gao Peng: please could you say what was the reuse of the plastics with PBDE as mentioned in one of your slides?

Response: the 5-types of e-waste entered the factory is firstly dismantled and sorted well. There will be no mixed in further processing anymore. Because the more meticulous the separation, the better profit the factory will have. This will help us to reuse PBDE-containing waste materials in the next step.

Then, it depends on the source of the waste plastics. It mainly comes from two parts. Firstly, it may come from the printed circuit board manufacturers. After those scrap or defective boards physically crushed in e-waste factory, the non-metal powder (contained PBDE) can be easily separated and reused comprehensively to make paving bricks. Secondly, the back cover of CRT-TV sets (ABS plastic) may contain PBDE, which is crushed and then recycled into the market. As a special solid waste, it can only be re-used in materials with flame retardant properties.

In addition, I would like to add that there is no comprehensive utilization method for the separated non-metallic powder from waste printed circuit board with components. because it may have PBDE and other heavy metal, landfill is still the best way for the non-metal part after those WPCB being broken.

Finally, China has issued relevant regulation in 2015, to limit the content of PBDE in electrical and electronic products (less than 1000 ppm), which also indicates that PBDE will be reuse less and less in the material circulation of e-products in the future.

12. Responsible companies like H&M and IKEA must be at the forefront of information on chemicals that are dangerous and are being banned globally. Also, as Ylva mentioned, they should know about the availability of least dangerous chemicals (safest chemicals). For this, does H&M and IKEA attend, as observers, the meetings of the POPRC of the Stockholm Convention? If not, it will seem like a good practice that they can do so and be part of the brands at the forefront in protecting the environment and human health.

Response: It is something worth exploring, thank you for the suggestion.