

Asbestos waste management practices and treatment technologies

Online workshop hosted by RPA Europe S.R.L.

Thursday, June 15, 2023 9:00 AM | 7 hours | (UTC+02:00) Brussels, Amsterdam, Berlin, Rome



Register at:

<https://www.rpa-europe.eu/asbestos-waste-workshop>

Introduction to the study and preliminary findings (130 mins)

09:00 – 09:30	30 mins	Registration
09:30 – 09:35	5 mins	Welcome and housekeeping rules (Marco Camboni, RPA Europe)
09:35 – 09:40	5 mins	Welcome message from the Commission and introduction to the aims of the study (Enrique García John, DG Environment)
09:40 – 09:50	10 mins	Research questions and study methodology (Marco Camboni, RPA Europe)
09:50 – 10:05	15 mins	Quantities and sources of asbestos waste (Francesca Chiabrando, RPA Europe)
10:05 – 10:20	15 mins	Asbestos waste management legislation and practices in the EU (Daniel Vencovsky, RPA Prague)
10:20 – 10:35	15 mins	Current and emerging asbestos waste treatment technologies in the EU (Rūta Akelytė, RPA Europe)
10:35 – 10:50	15 mins	Q&A
10:50 – 11:00	10 mins	Break

Topic-specific sessions and wrap-up

11:00 – 12:30	90 mins	Morning session: Management of asbestos waste in the EU: policies and practices What are the key elements of a national asbestos management strategy? What are the key challenges to be solved? Is there a need for EU action? What are the asbestos waste management best practices?
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Moderated by Daniel Vencovsky – RPA Prague

Keynote speakers:

Stefania Butera – Danish Technological Institute

Olaf Dünger – ARCADIS

12:30 – 13:30 60 mins Lunch break

13:30 – 15:00 90 mins **Afternoon session: Current and emerging technologies for the treatment of asbestos waste**

What are the key characteristics of the most promising technologies? What are the main technical and market barriers? What are the products that can be obtained and what are their safety profiles, potential uses and market opportunities?

Moderated by Zinaida Manžuch – RPA Europe

Keynote speakers:

Nicolas Humez – Chairman of Hazardous Waste Europe

Jos Hofst – Chief Financial Officer at Asbeter Holding B.V.

15:00 – 15:30 30 mins Break

15:30 – 16:00 30 mins Presentation of discussion outcomes and wrap-up

This workshop is organised in the context of the study on asbestos waste management practices and treatment technologies which the European Commission DG Environment commissioned to RPA Europe, RPA Prague, the Danish Technological Institute and ARCADIS. This document provides information on the purpose, scope, objectives, approach and interim findings, for discussion at the workshop.

Study background

As of 1 January 2005, [Directive 1999/77/EC](#), amending Directive 76/769/EEC, banned the use of any asbestos fibres throughout the EU. Furthermore, the [REACH Regulation](#) specifies that the manufacture, sale and use of asbestos fibres and products containing these fibres are prohibited, and [Commission Regulation 2016/1005](#) amending Annex XVII to REACH aims to ensure the complete phase-out of asbestos products in Member States by 1 July 2025. However, the use of articles containing asbestos fibres which were already installed and/or in service before 1 January 2005 remains permitted until they are disposed of or reach the end of their service life. While asbestos may not be actively used and marketed, built-in asbestos still exists in pipes, insulation, stoves, heating devices, asbestos sheeting, and roofing.

In October 2021, the European Parliament adopted a [resolution](#) calling for a ‘European strategy for the removal of all asbestos’. In the resolution, the Parliament called for further EU action to protect workers and citizens from the health risks related to exposure to asbestos, especially in the context of the energy transition. The [European Economic and Social Committee also called for the removal of all asbestos](#), underlining that works in energy renovations create synergies with the removal of harmful substances.[6] The European Parliament highlighted that asbestos waste treatment should fully apply the precautionary principle and called on the Commission to propose a corresponding revision of relevant Union waste legislation. The Commission is committed to follow up on the resolution from the European Parliament. Therefore, evidence is in demand for the European Commission to accompany one or more possible new legislative or non-legislative initiative(s) on the matter.

In 2022, the European Commission launched the ‘Study on asbestos waste management practices and treatment technologies’. The purpose of this study is to investigate asbestos waste management practices and technologies in Europe and beyond. The ultimate aim is to ensure that the waste hierarchy (Article 4 of the [Waste Framework Directive](#)) is applied to asbestos waste properly and consistently across the EU, i.e., that efforts are put in place to reduce the landfilling of asbestos waste and promote its recycling into a non-hazardous mineral fraction.

Workshop discussion topics and study findings

The workshop will commence with an introductory session, followed by two topic-specific sessions. In the introductory session, the study team will provide an overview of the initial findings of the study, specifically on the asbestos waste statistics, management practices, and treatment technologies. The participants will have an opportunity to provide their feedback on these preliminary findings. Two topic-specific sessions will dive deeper into two areas: management of asbestos waste in the EU and asbestos waste treatment technologies, where participants will be able to exchange their views, share knowledge and provide feedback on these specific topics.

Management of asbestos waste

The management of asbestos-containing waste is regulated at the EU level through the Waste Framework Directive and by the [Commission Decision establishing a list of wastes](#). The disposal of asbestos waste in landfills is subject to provisions in the [Landfill Directive \(1999/31/EC\)](#) and, more specifically to provisions in [Decision 2003/33/EC](#). The Commission has also introduced non-binding guidelines to the industry: the [EU Construction and Demolition Waste Management Protocol and Guidelines](#), which cover not only recommendations for the removal of asbestos but also for pre-demolitions audits. As noted in the Protocol, hazardous waste always needs to be separated and disposed of in accordance with the national regulations on hazardous waste. In addition, the majority of Member States have developed guidelines, rulebooks, or good/best practices on how to manage asbestos waste.

Through the review of literature and legislation as well as a stakeholder survey, the study has analysed national asbestos management strategies and practices. The initial findings have revealed that initiatives and strategies on the removal of asbestos from buildings exist in most of the EU countries in the form of government programmes, national waste management plans, policy initiatives, special funds, subsidies, soft loans, or grants. However, currently, only Poland has a [comprehensive asbestos removal programme](#) with the aim to remove all asbestos by 2032, which shows that Member States have achieved different levels of progress in developing national asbestos waste management strategies.

Management of asbestos waste and the design of appropriate strategies requires knowledge about the streams of asbestos waste. Waste statistics at EU level does not provide sufficient granularity on asbestos. Eurostat holds data on waste generation and treatment by waste category, but quantities of asbestos waste are aggregated with other mineral wastes. The search of asbestos waste statistics at a national level has been carried out following a comprehensive methodology that looked at competent authorities' websites and other relevant data sources to understand what data on asbestos waste exist in each Member State. The search has revealed that data at a national level is publicly available, albeit not in all Member States and not to the same level of granularity. For instance, some countries (e.g., Denmark, Italy, Lithuania, Luxembourg, Slovenia) have very comprehensive databases, where quantities of asbestos waste are logged by the European List of Wastes codes and by disposal or recovery operations as per Waste Framework Directive. Other countries have aggregated data for all asbestos-containing waste or asbestos waste is recorded together with other mineral waste. In addition, in some countries, data on asbestos waste is available for longer periods of time (e.g., 10-15 years), whereas for others, it is only available for a few years or a year. This shows that the way asbestos waste statistics are collected in each Member State is inconsistent, which results in highly fragmented, incomplete, and incomparable data.

In a topic-specific session 'Management of asbestos waste in the EU: policies and practices', participants will have an opportunity to discuss the above-mentioned issues in detail. They will hear two presentations on asbestos waste management practices in two countries and will be invited to share their views on what elements (both strategic and practical) are essential for designing and implementing effective asbestos waste management programmes in Member States and how the EU-level action supports these initiatives, and what should be considered as best practice in managing asbestos-containing waste and what are potential gaps in EU legislation to achieve it.

Treatment technologies

In the EU, most of the asbestos-containing waste comes from construction and demolition activities. Such waste is predominantly disposed of in landfills. Before being deposited, friable asbestos can undergo a stabilisation process, through which the risk of fibres release is reduced, but the volume and mass of the waste is substantially increased. Although EU waste legislation sets strict requirements for a safe disposal of asbestos in landfills, exploring alternative ways to treat asbestos waste in an environmentally sound manner is a [priority in the EU as the waste hierarchy prioritises waste recovery over disposal](#).

Through a comprehensive literature review as well as a stakeholder survey, the study has analysed the current state-of-the-art of asbestos treatment technologies. The study has found that many techniques to treat asbestos-containing waste have been researched in the last couple of decades in order to make it harmless and to enable its reuse. They include thermal, chemical, biological, mechanical, thermochemical, mechanochemical, biochemical and other treatment technologies. Although the majority of techniques have not moved from experimental setting, several have made it to pilot or industrial level, mainly thermal or chemical treatment technologies. Currently, vitrification by thermal plasma at an Inertam plant in France is the only industrially implemented alternative to storing asbestos waste in landfills in Europe. Nevertheless, there are multiple projects for which demonstrator or pilot plants are planned for or already exist, such as VALAME, De Dietrich, Somez and Colas in France, all using chemical processes to treat asbestos waste, Thermal Recycling (UK), Purified Metal Company[1] (Netherlands), D-nature (Netherlands), ATON (Poland) that use thermal methods, Asbeter (Netherlands) that uses mechanochemical and ARI Technologies (UK) that applies thermochemical processes. Some of these companies are aiming to build plants in the next few years capable of treating thousands of tonnes of asbestos waste per year.

In a topic-specific session 'Current and emerging technologies for the treatment of asbestos waste', the participants will hear two presentations on case studies of asbestos waste treatment technologies and will be invited to provide their opinions and examples on the most promising technologies to treat asbestos-containing waste and the current state-of-the-art in their development. The participants will have an opportunity to share their views on main barriers to their commercialisation (technical and/or market) as well as opportunities regarding, for example, recycling of treated asbestos waste.

[1] The company had to stop their operations due to high energy costs.