TSCA Risk Management Final Risk Management Rule - Chrysotile Asbestos

January 19, 2024







Worker Safety is a Priority

• Workers in the chlor-alkali industry are extensively trained to work in the highly specialized areas where work to prepare asbestos diaphragms occurs.

 Today workers are protected by strict regulations including the OSHA Standard for Toxic and Hazardous Substances, Asbestos and EPA's NESHAP. Regulatory protections are enhanced by the Chlorine Institute's Industrial Recommendations, American Industrial Hygiene Association guidelines and industry's own HE&S

• Engineering, administrative and personal protective equipment controls are in place to help ensure compliance with existing OSHA and EPA standards, which also include requirements for exposure monitoring, hazard communication and training, access restrictions and medical surveillance to protect worker safety.

Chlorine Chemistry: Essential Building Block

Pharm a ceutic a ls

88%



Medical Plastics



Crop Protection Chemicals

50%







An Orderly Transition Is Necessary to Avoid Shortages in Multiple Industry Sectors

In July 2022, Chemical Market Analytics (CMA) issued a report entitled the "Impact of EPA's Proposed Asbestos Diaphragm Chlor-alkali Rulemaking." This report was updated by CMA for the Notice of Data Availability issued by EPA in 2023.

Significantly, CMA reported that in 2023 asbestos technology:

- supported 32% of the total chlorine production;
- supported 46% of chlorine production that goes to the merchant market for to supply public water treatment facilities.

*The merchant market represents the portion of chlorine production that is sold to external customers.



The Transition is Happening Now - but 15 Years is Needed to Transition to State-of-Art Membrane Technology in the US





Sequential conversion (one at a time) for plants to membrane technology is only option viable option due to:

- The limited global supply chain for indispensable metals required for electrodes presents a significant challenge. These metals, often rare and essential, are crucial components for the transition.
- Competition with the emerging hydrogen market and potential disruptions in source countries like Russia increase the difficulty and cost of obtaining a significant quantity of metals within a short timeframe.

Why 15 years is Needed to Fully Transition



- facility surpasses the current manufacturing capacity.
- would be required to accommodate the single facility.



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Small number of highly specialized technical experts needed for chlor alkali conversions

- Because of the narrow application, electrochemical engineering expertise for chlor alkali operations is typically developed through work in chlor
- Historically, even large engineering firms do not need/retain electrochemical engineering expertise with a specialization in chlor limited application
- This industry specific expertise is critical to safely support and design conversions to membrane and is not broad enough for multiple facility conversions to membrane at the same time.



• The demand for electrodes required to convert chlorine production at a single

• Even if the metals could be sourced, additional global manufacturing capacity conversion of chlorine production at a

- alkali facilities.

- alkali facilities because of its - few membrane facilities have been built in the US.

ECELConcerns: Use Control Banding to Evaluate Short-Term Task Exposure

To target tasks associated with asbestos and confirm controls are in place, we support a control banding approach that focuses on task for similar exposure groups (SEGs).

- based measurements that permit the inclusion of required Implement task ulletAssigned Protection Factors (APFs) when assessing exposure for short as per current methods
- Aligns with the 'control - banding - by - task' (CBT) approach, allowing for a more targeted evaluation of task - specific scenarios within well than relying solely on full 8 - hour data
- Allow additional time (2 years) for compliance with ECEL requirements ightarrow

- based exposure scenarios

- term tasks,

- defined SEGs, rather



Conclusion

Prohibit import of chrysotile as best os upon the effective date of the final risk m a n a g e m e n t ru le



Initiate the phaseout of chrysotile as best os use in chlor-alkalim anufacturing not less than 5 years from the effective date



Allow 15 years from the effective date for the phase out of chrysotile as bestos use in chlor-alkalimanufacturing



Require ECELcompliance, including consideration of PPE use during short-term tasks, no less than 2 years from the effective date



American Chemistry Council

Thank you

