

Risk of inclusion of boric acid in Annex XIV of the REACH regulation

Summary

The European nuclear industry, represented by the signatories below, all current or future operators of nuclear facilities, including nuclear power plants (PWR and BWR), research reactors and fuel cycle facilities, warn against the risk entailed by ECHA's recommendation to include borates, especially boric acid, in Annex XIV of the REACH regulation.

- Boric acid is essential to ensure the safety of nuclear installations and for the nuclear fuel cycle. There are no substitutes.
- Risks to human health and the environment are carefully managed when boric acid is used in the nuclear industry.
- The inscription process is already well advanced. Member States and the Commission should be fully aware of the impact of the inclusion of boric acid in the REACH regulation and we highly recommend them to take appropriate action before the deadline of April 2015 (opinion of the Member States Committee on ECHA's draft recommendation) and June 2015 (communication of ECHA's final recommendation to the European commission).
- The coalition recommends the non-inclusion of borates in the Authorization List and the implementation of a Risk Management Option Analysis (RMOA).

1. Prioritization of boric acid in Annex XIV of the REACH regulation is not appropriate.

1.1 Boric acid is absolutely vital for the nuclear industry

In normal operations or in case of incidents/accidents, **boric acid is essential to the nuclear safety of nuclear installations**. Boric acid is a key substance to operating nuclear power plants, controlling the nuclear reaction and ensuring the safe and reliable use of installations. Boric acid is also used in fuel cycle facilities for its neutron absorbing properties as well as for other specific aspects concerning nuclear waste management.

Operating plants and even the latest designs – including for example EPR, AP1000 – must use boric acid throughout the duration of the plant's lifetime, including in the spent fuel pool and storage of spent fuel. For BWR technologies, boric acid is required for safe shutdown. **The use of boric acid in the nuclear power industry will be required in the long run.**

Indeed, **the boric acid neutron absorbing capability is non-substitutable to control the nuclear reaction and ensure safety**. Previous research has demonstrated that there is no viable alternative solution with the current existing and prospective plant designs. No adequate substitutes are available or are expected to be available because of the inherent properties of the chemical elements involved.

1.2 Risk to human health and the environment is carefully managed when boric acid is used in the nuclear industry.

Risks of boric acid exposure among workers in the plants are under control. Impact studies have demonstrated the absence of impact on the environment from boric acid liquid discharges due to the operation of nuclear power plants. Furthermore, based on current knowledge and methods tested by recognized scientific organizations, the health risk associated with boric acid liquid discharge is not considered to be a concern.

1.3 Authorization procedure under the REACH regulation

The authorization procedure aims (Title VII of REACH regulation) at ensuring that the risks for Substances of Very High concern (SVHC) are properly controlled and that these substances are progressively replaced by suitable alternative substances or technologies where these are economically and technically viable (article 55 of REACH regulation). Once included in the Authorization list (annex XIV of the REACH regulation), these substances cannot be placed on the market or used after a given date, unless an authorization is granted by the European commission for their specific use, or the use is exempted from authorization.

The process to authorization is the following one:

- A Member State, or European Chemicals Agency (ECHA) at the request of the EC, suggests a substance to be identified as a SVHC. Once identified as such, it is included in the candidate list, for eventual inclusion in the Authorization List (Annex XIV). ECHA's draft recommendation of priority substances to be included in the Authorization list is then subject to a public consultation.
- For boric acid – which is on the candidate list – the public consultation ended on 1st December 2014. After the public consultation, a Member States Committee (MSC) issues its opinion on the draft recommendation which takes into account the comments submitted during the public consultation. ECHA will take into account the MSC's opinion (April 2015) when recommending to the Commission priority substances that should be included in Annex XIV (expected in June 2015).
- Finally, the Commission proposes to modify annex XIV of the REACH regulation to include new SVHC substances after the vote in the REACH Committee. The modification will then be adopted following the applicable comitology procedure (for boric acid it is expected to occur during the summer 2016).

As a best practice, a Risk Management Option Analysis should now be driven before any SVHC proposal. For some “historical” substances, as boric acid, such exercise has not been performed.

2. Recommendation

The European nuclear industry recommends the non-inclusion of borates in the Authorization List and the implementation of a Risk Management Option Analysis to define the best regulatory way to manage the potential risks identified.

As stated by the European Commission as recently as in May 2014, borates are among the 20 critical substances for the European economy (Report on critical raw materials for the EU, Report of the Ad hoc Working Group on defining critical raw materials- European Commission, DGENTR, May 2014). In addition, borates have been listed as the 3rd most difficult substance to substitute among the 20 strategic substances (Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions on the review of the list of critical raw materials for the EU and the implementation of the Raw Materials initiative- COM 2014/ 0297).

No RMOA was implemented before the beginning of the authorization process. **This RMOA could be initiated by the Commission or by a Member State.** To date, health and environmental risks are considered to be adequately controlled by nuclear industries. However, we believe that due to the relevant impact on industrial activities and above all on the nuclear safety of our installations, a RMOA should be implemented in order to ensure that regulation to manage the risks identified is based on a complete and up-to-date analysis.

(By alphabetical order)





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