

Date: August 23, 2021
To: All Engineered Systems Distributors
From: Abhay Nadgir, Director, Product Management & Strategy
Subject: Potential Regulatory Impacts for Clean Agent Suppressants

IMPORTANT PRODUCT INFORMATION
PLEASE IMMEDIATELY SHARE WITH YOUR SALES, DESIGN & SUPPLY CHAIN

A. Introduction

This bulletin concerns actions that Kidde Fire Systems (Kidde) is currently taking because of certain announced regulatory changes that may affect the global fire suppression industry. These announced changes include the (i) American Innovation and Manufacturing (AIM) Act enacted on December 27, 2020, (ii) regulations proposed by the US Environmental Protection Agency (EPA)¹ concerning the reduction of the use of hydrofluorocarbons (HFCs), and (iii) other international regulatory changes. As modifications are made to rules, regulations, and implementation processes, Kidde may modify its actions and will provide relevant updates.

The bulletin is not legal advice or official guidance. Kidde encourages you to review announced regulatory changes with your own legal or other professionals for advice.

We are committed to an open and collaborative conversation as we work towards compliance and first-in-class fire suppression solutions. We invite you to share any comments you have with us.

Hyperlinks of external websites (outside of Kidde or Carrier domains) are provided for convenience and are not subject to Kidde control or ownership.

B. Proposed US Regulatory Changes

In April, the EPA published a fact sheet² concerning proposed US regulations related to HFCs. A summary of highlights includes:

1. The EPA plans to use 2011 through 2013 as baseline years to calculate consumption and production of HFCs in the US.
2. Baseline numbers for consumption and production across all use categories (stated in million metric tons of CO₂ equivalent) are 299 MMTEVe and 375 MMTEVe, respectively.
3. The proposed regulation requires reduction of the consumption and production allowance as follows:

Year Range	Allowance Cap as % of Baseline
2022-2023	90% of baseline
2024-2028	60% of baseline
2029-2033	30% of baseline
2034-2035	20% of baseline
2036+	15% of baseline

¹ <https://www.epa.gov/climate-hfcs-reduction>.

² https://www.epa.gov/sites/default/files/2021-05/documents/hfc_allocation_rule_nprm_fact_sheet_final_v1508.pdf

4. Several HFCs used in the fire suppression industry are identified for reduction, as follows:

HFC	Exchange Value	Kidde Remarks ³
HFC-227ea	3,220	Current Kidde product
HFC-23	14,800	Obsolete Kidde product
HFC-125	3,500	Current industry product
HFC-236 (various)	Up to 9,800	Current industry product

5. Alternative⁴ fire extinguishing flooding agents suggested by the EPA include Fluoroketone FK-5-1-12 and Inert Gases.
6. The EPA must fully and exclusively⁵ allocate HFC allowances to meet full requirements of specific *Exempted Sectors* for five years following enactment. A potential Exempted Sector of interest to some distributors includes “Mission-critical military end-uses”.
7. Volume allocations for domestic use will be given to USA producers and importers of HFCs, except in the case of the exclusive allocations for Exempted Sectors.

Finalization of the regulation and allocation methodology for 2022 and 2023 is expected in October 2021.

C. Uncertain Impacts of Proposed US Regulatory Changes

Eligibility of Fire Suppression OEMs for HFC allocation appears limited to very specific circumstances under the proposed regulations. Producers and importers of HFCs also appear unlikely to be able to ship regulated HFCs to consumers and/or end users unless the recipient is in an Exempted Sector (such as in the case of mission-critical military end-uses) and/or can provide documentary evidence of allocation.

However, until the rules are finalized, it is not known exactly how these allocations might be assigned or how they will work in practice.

Additional unknown potential impacts include:

1. The amount of any price increases required due to increased cost for HFC agent, which increases could be significant;
2. Lead times for system delivery if we choose to or are required to consolidate allocations from different consumers to reduce agent, documentation, transportation and pumping costs;
3. Supply chain changes, if HFC producers/importers shift to producing/importing and selling HFCs with lower CO₂ equivalence than a Fire Suppression HFC;
4. Exports from the USA – could be impacted by changes suppliers might make in response to regulations.

D. The United Nations Kigali Amendment⁶ to Montreal Protocol

In addition to US regulatory changes, the Kigali Amendment to the Montreal Protocol concerns Green House Gas (GHG) emission reductions, and a HFC phase-down process that restricts the use, application and/or import of HFCs. According to several sources, 122 countries⁷ have already approved or ratified the amendment, and the USA has also announced⁸ a move to ratify.

Given that the various countries have different ratification and phasedown schedules, importers of HFCs are responsible for providing Kidde with appropriate documentation proving governmental approval to import and transport within their country.

³ This information is for reference only

⁴ https://www.epa.gov/sites/default/files/2021-05/documents/ria_omb_043021_0.pdf

⁵ Allowances proposed to be allocated are for the exclusive use in the listed applications

⁶ <https://treaties.un.org/doc/Publication/CN/2016/CN.872.2016-Eng.pdf>

⁷ https://kigali-amendment.opendatedata.net/?_sm_vck=W4d6Vdn46nJQN6tJM2d7SF7n76Bj5s1MRRj46Rr33s6Vd7MH0RD0

⁸ <https://www.nrdc.org/experts/alex-hillbrand/biden-announces-move-ratify-kigali-amendment-hfcs>



E. Distributor Actions

Kidde requests that the following actions be promptly reviewed and assessed by distributors for action, to help transition to Kidde's available solutions under timing consistent with the changing regulatory landscape.

1. For the remainder of 2021:

- a) Immediately advise your end-users of the contents of this bulletin.
- b) To help mitigate against potential supply shock of HFC-based systems in Q4-2021, if possible, transition affected agents to alternatives as referenced in section B.5 above.
- c) Should a transition to an alternative agent not be possible, Kidde recommends placing your orders for any HFC-227ea based systems on priority and as early as possible to help protect against declined orders due to potential non-supply.

2. For 2022 and beyond:

- a) If the EPA regulation goes into effect as currently drafted, orders with ship-dates after December 31, 2021, will likely require either an allocation or a purchase allocation mechanism.
- b) **STARTING TODAY, CONSIDER THE POSSIBILITY OF EXCLUSIVELY DESIGNING SYSTEMS USING THE ALTERNATE AGENTS REFERENCED IN SECTION B.5 ABOVE.**
- c) If you have quotes or pricing approval for systems utilizing HFC-227ea with delivery in 2022+, this price and validity are now considered expired. Please communicate with your Kidde RSDs/RSMs for next steps.
- d) For USA shipments of HFC-227ea on or after January 1, 2022, POs may require documentation including, but not limited to, an allocation number from the EPA to the importer or producer and therefrom to the end-user.
- e) For Rest-of-World (ROW) shipments of HFC-227ea on or after January 1, 2022:
 - i. Shipments of Kidde Fire Systems branded, factory-filled DOT cylinders with HFC-227ea will effectively cease, unless you have mitigated the risk of non-supply by placing your orders for both system hardware and bulk agent (as per section E.3 below) in 2021 with delivery in 2022.
 - ii. Bulk agent order and factory-filled system POs (see E.2.f.i and E.3 below) may require documentation that includes, but is not limited to, governmental agency and/or end-user approval for you (Kidde Distributor) to import HFC-227ea and guarantee that agent or systems will not be relocated or transshipped to any other country.
- f) Potential Alternatives for Sourcing HFC-227ea Systems Outside of the US:
 - i. Using Kidde Fire Systems branded, UL listed & FM approved, factory-filled HFC-227ea systems in DOT cylinders shipping from our Kidde Products Limited location in Benthall, UK – this solution would be at a higher cost; however, contact us for details.
 - ii. Investing in a world-class, agency approved, First Fill Facility under your ownership and our audit control – contact us for details.

3. To help mitigate risk of potential future supply shock, place a PO on us for your future (2022) estimated demand of HFC-227ea and Novec 1230⁹ bulk agents as soon as possible for delivery in 2021.

⁹ 3M™ Novec 1230™ Fire Protection Fluid



F. Actions by Kidde

Change to Policy: Environmental Compliance Letters

Kidde's knowledge of the gaseous chemical fire suppression agents from an environmental standpoint is limited to information provided by its third-party suppliers and agencies like the EPA. Further, it is the responsibility of the system integrator and/or end user to determine the appropriateness of a particular solution as it relates to any applicable local laws, including environmental regulations. As a result, Kidde will no longer provide letters or statements pertaining to the environmental appropriateness or compliance of agents as it pertains to global, regional or local applicable regulations. Upon request, Kidde can alternatively provide the CO2 equivalence number published by the EPA and safety data sheets (SDSs) related to an agent.

Supply Actions

To try to mitigate risks of potential supply shock in the fourth quarter of 2021 (Q4-2021), Kidde is advance purchasing limited quantities of the HFC-227ea agent. Distributors should plan accordingly.

Other Actions

As a key stakeholder in the fire suppression industry, Kidde and its parent company Carrier, have requested the EPA work with the industry to ensure through allocation or other means that certain critical applications (e.g., power generation and transmission, data centers, healthcare facilities, mass transit, marine vessels) have adequate access to HFC-227ea until viable alternatives are identified, properly tested, and certified for use, as these systems function to protect life and infrastructure.

Questions or Concerns

Please contact us to discuss further at:

Sales	Domestic , International
Product Management:	(508) 881-2000
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As always, we thank you for your business.

