



October 7, 2020

Ms. Koki Takaki
Environment, Health and Safety Division
Organisation for Economic Co-operation and Development
2, rue André Pascal
75016 Paris
FRANCE

Re: Emission Scenario Document on the Use of Aqueous Film-Forming Foams in Firefighting,
ENV/JM/WRPR(2020)43, 27 August 2020

Ms. Takaki:

The American Chemistry Council (ACC), Aerospace Industries Association (AIA), American Fuel and Petroleum Manufacturers (AFPM), and American Petroleum Institute (API) submit the following comments on the final draft exposure scenario document (ESD) on occupational exposures to aqueous film-forming firefighting foam (AFFF). We are submitting these comments on behalf of a number of our member companies who likely will be impacted by OECD efforts to address AFFF in the workplace. We anticipate that the ESD will set an important precedent for how OECD countries estimate releases and exposures from the use of AFFF containing per- and polyfluoroalkyl substances (PFAS) and other substances and want to ensure that it reflects the most current and accurate information on the use of these products. As currently drafted, the report will lead to a significant overestimate of potential releases and exposures from facilities using AFFF.

ACC, AIA, AFPM, and API support OECD's initiative in developing this document and on the stated intention to maintain the ESD as a "living" document with periodic updates to reflect new information and changes in policy and practices. In the spirit of ensuring that the ESD is up to date, we note that much has changed since the US Environmental Protection Agency brought this draft to OECD in 2014. In particular, the shift to shorter chain (C6) PFAS has largely been completed in the US, Europe, and Japan – as a result of voluntary action by the PFAS manufacturers and industries using AFFF in those regions. While existing stocks of AFFF containing longer chain (C8) PFAS remain, this material is being replaced as the stocks are retired. Moreover, techniques for training and equipment testing have evolved to allow for the use of water or foams that do not contain PFAS. Since much of the historic use of foam products has resulted from training and testing, these alternative techniques have resulted in a

significant reduction in the release of, and potential exposure to, the material. These changes have in turn affected the use patterns of the material that are not reflected in the ESD. Much of the information on use is more than 10 years old and does not reflect the current situation. Some examples include --

- Training of firefighters in the United States and elsewhere is conducted at centralized training facilities; training is no longer performed at individual industrial sites. (Section 3.10)
- Older, unused foam concentrate is not accepted by (or released to) publicly owned treatment works (POTWs) or industrial waste water treatment work (WWTPs) due to the potential for the foam to significantly disrupt the treatment operations. Nor is expired material used for training or donated to firefighting facilities for training. (Section 4.4)
- Shipments of foam concentrate to industrial facilities currently occurs in 265-gallon foam totes, not in 55-gallon drums as suggested in the ESD (Section 3.14). Use of totes enable mechanical handling and allows for the connection to direct feed systems which further minimizes the potential for release and exposure.

Our organizations have not attempted to confirm all of the calculations in the ESD, but encourage OECD to review the assumptions and default values used. We are concerned that many of the assumptions are highly conservative and not reflective of current practice. These include -

- As indicated above, training and testing with AFFF has been significantly reduced at industrial facilities. The ESD's assumption of one training event and one testing event at a facility no longer reflects standard practice. (Section 3.10)
- AFFF is rarely used by municipal fire departments to fight automobile fires. Anecdotal evidence suggest that only about 10 percent of auto fires require the use of foam. (Section 3.10.3)
- Assuming a default concentration of 25 percent for an unknown constituent of the formulation overestimates the amount of most, if not all, foam ingredients. (Section 3.4, 4.2, and 5.3). This represents the high end of the range for the most prevalent constituent in the formulation (i.e., solvent) and overstates the other types of constituent, including the PFAS component.
- Workers engaged in the activities described in Section 5.1 are almost certain to use personal protective equipment (PPE). The decision to not take PPE into account in the evaluation significantly overstates occupational exposures.
- The assumption of 21 firefighters per site (Section 5.2) does not reflect the situation in airplane hangars and locations where enclosed, automated systems can be deployed without requiring firefighters to enter the structure.
- Assuming full unloading/charging annually overestimates (by 10- to 25-times) the amount of AFFF requiring replacement every year (Section 4.2 and elsewhere). Only

the amounts “expended” (in firefighting) or “expired” (and disposed) during the year require replenishment.

We also encourage OECD to provide greater discussion of appropriate disposal options for AFFF other than incineration. Incineration may be one of several environmentally responsible disposal options, particularly in OECD countries where the capacity of incinerators that operate at sufficient temperatures may be limited.

ACC, API, AFPM, and AIA look forward to working with OECD and its member governments as they continue to effectively demonstrate leadership on this AFFF exposure scenario document. Please do not hesitate to contact me about the above information.

Sincerely,

Jeff Gunnulfson

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