

[REDACTED]

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Sent: Saturday, February 15, 2025 8:13 AM

[REDACTED]

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Dear [REDACTED]

This is an urgent request for the immediate reassessment of FirePro’s approval under the EPA’s Significant New Alternatives Policy (SNAP) program due to newly confirmed lethal levels of nitrogen dioxide (NO₂) emissions, which were previously ignored despite being acknowledged in the EPA’s own documentation (EPA-HQ-OAR-2003-0118-1656).

The EPA reviewed FirePro for CO emissions but failed to account for NO₂, even though NO₂ was explicitly listed as a combustion byproduct in the risk screen report. The agency did not evaluate its concentration, did not compare it to AEGL safety limits, and ultimately ignored its toxicity. This represents a catastrophic regulatory oversight that has already contributed to at least one documented fatality.

1. Lethal NO₂ Exposure Confirmed by EPA Data

Using the EPA’s own documented formulation of FirePro (77% potassium nitrate) and standard combustion chemistry, the expected NO₂ emission level in a 1 cubic meter confined space is 14,160 ppm.

Substance	AEGL-2 (Severe Health Effects, ppm)	AEGL-3 (Potentially Fatal, ppm)	FirePro Expected Emission (ppm)
NO ₂	5 ppm	20 ppm	14,160 ppm 🚨

FirePro's actual NO₂ emissions exceed the lethal AEGL-3 limit by over 700 times. There is no reasonable scenario in which these levels would not be fatal within minutes in a confined space. This was not even considered by the EPA!

2. MAIB Report Confirms NO₂ as the Likely Cause of Death

The Marine Accident Investigation Branch (MAIB) report on the 2019 Resurgam incident attributes the death of an apprentice engineer to "carbon monoxide poisoning and inhalation injury." However, the detailed autopsy findings describe:

- Lung congestion and hemorrhaging
- Alveolar damage and fluid accumulation

These symptoms do not match CO poisoning but are a textbook case of NO₂ inhalation injury. This is supported by numerous toxicology studies on NO₂ exposure. The absence of any consideration of NO₂ in the MAIB report is a direct result of EPA's failure to regulate it.

This means:

- ✓ The fatality attributed to CO was almost certainly caused by NO₂ exposure.
- ✓ FirePro's NO₂ hazard has been hidden from regulators for years.
- ✓ FirePro remains in use under false safety assumptions, endangering lives.

If the EPA does not act, it will be knowingly allowing a lethal, unregulated chemical hazard to persist.

3. Immediate Regulatory Actions Required

To correct this oversight and prevent further loss of life, we demand that the EPA:

- ✓ Immediately reassess FirePro's SNAP approval based on the newly confirmed lethal NO₂ emissions.
- ✓ Revoke all SNAP approvals for aerosol fire suppressants that have not been tested for NO₂ hazards.
- ✓ Mandate NO₂ exposure testing in all future SNAP evaluations.
- ✓ Issue an immediate safety advisory to all users of FirePro and similar systems.

This is no longer a theoretical concern—NO₂ from FirePro has already killed at least one person. The fact that these levels were calculable based on EPA's own data but were ignored raises serious concerns about regulatory negligence.

I expect a formal acknowledgment of this request and an urgent timeline for EPA's response. If the EPA fails to act on this information, I will have no choice but to escalate this to Congress and the media.

People are dying because of regulatory failure. The EPA must act immediately.

Sincerely,

Valerii Ivanov
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