

# Fumigants and Sulfuryl Fluoride(SF) Update

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Pesticide Re-evaluation Division (PRD), Office of  
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# Fumigants Update

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OPP is working to finalize Interim Decisions (ID) for the structural/commodity fumigants:

- **Inorganic sulfites** - the ID was completed and published to the Federal Register on Apr 28, 2021.
- **Propylene oxide (PPO)** –
  - the Draft Risk Assessment (DRA) and Proposed Interim Decision (PID) for PPO were completed and released for public comment in fall 2020.
  - The PPO ID was completed in June 2021.
  - EPA released an update to the PPO ID in December 2021 to clarify ambiguous language in the original ID.



# Phosphine and aluminum and magnesium phosphides (the metal phosphides) - Update

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July 25, 2023, the Agency released for comment the [amended phosphine and metal phosphide PID](#):

- includes proposed ecological mitigation measures for non-target organisms (including listing species)
- revised buffer zone proposals
- restrictions on use of in-burrow applications to target species only, and pre-application burrow check language
- ecological incident reporting language and Bulletins Live! Two labeling language
- Fumigant Management Plan language

The comment period is open until Sept 25<sup>th</sup>, 2023.

[www.regulations.gov/document/EPA-HQ-OPP-2013-0081-0117](http://www.regulations.gov/document/EPA-HQ-OPP-2013-0081-0117)

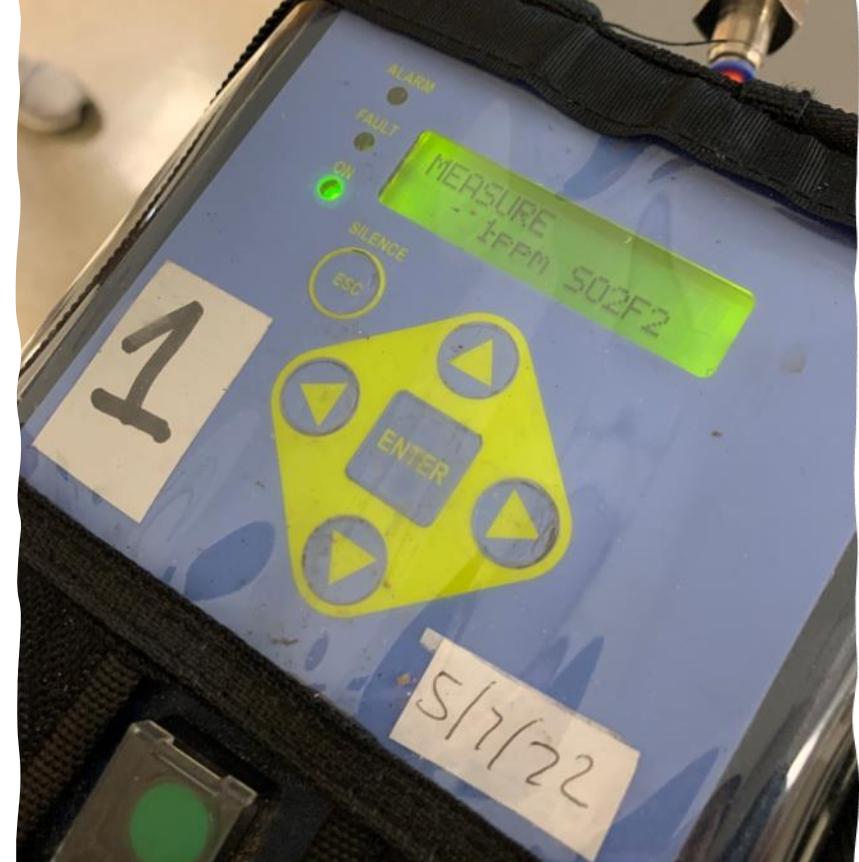


# Sulfuryl fluoride (SF) - Update

June 29, 2023, the Agency released the *Sulfuryl Fluoride Revised Mitigation and Response to Comments on the Draft Interim Re-entry Mitigation Measures Memorandum*:

- Clearance devices: Remove references to specific or “approved” clearance devices from product labels – Add link to <https://www.epa.gov/ingredients-used-pesticide-products/sulfuryl-fluoride> for list of effective devices on labels.
- Aeration procedures: *Revised mitigation from proposal*. Final mitigation includes enhancing current Aeration Procedures 1 and 2 with longer active and passive timeframes.
- Posting/warning signs: basic elements in signs will be required.
- Site-Specific Fumigation Logs: basic elements will be required to be recorded for each fumigation with SF.
- Stewardship plans: Registrant stewardship plans will be listed on EPA website.

<https://www.regulations.gov/document/EPA-HQ-OPP-2009-0136-0347>



## Sulfuryl Fluoride (SF) Early Mitigation

In response to an  
OIG Audit: human  
health incidents after  
re-entering a  
residential  
fumigation that was  
“cleared” for re-  
entry.

U.S. ENVIRONMENTAL PROTECTION AGENCY

OFFICE OF INSPECTOR GENERAL

*Chemical Safety*

### **Additional Measures Can Be Taken to Prevent Deaths and Serious Injuries From Residential Fumigations**

Report No. 17-P-0053

December 12, 2016



# OIG Audit findings

Multiple factors that contributed to the incidents including:

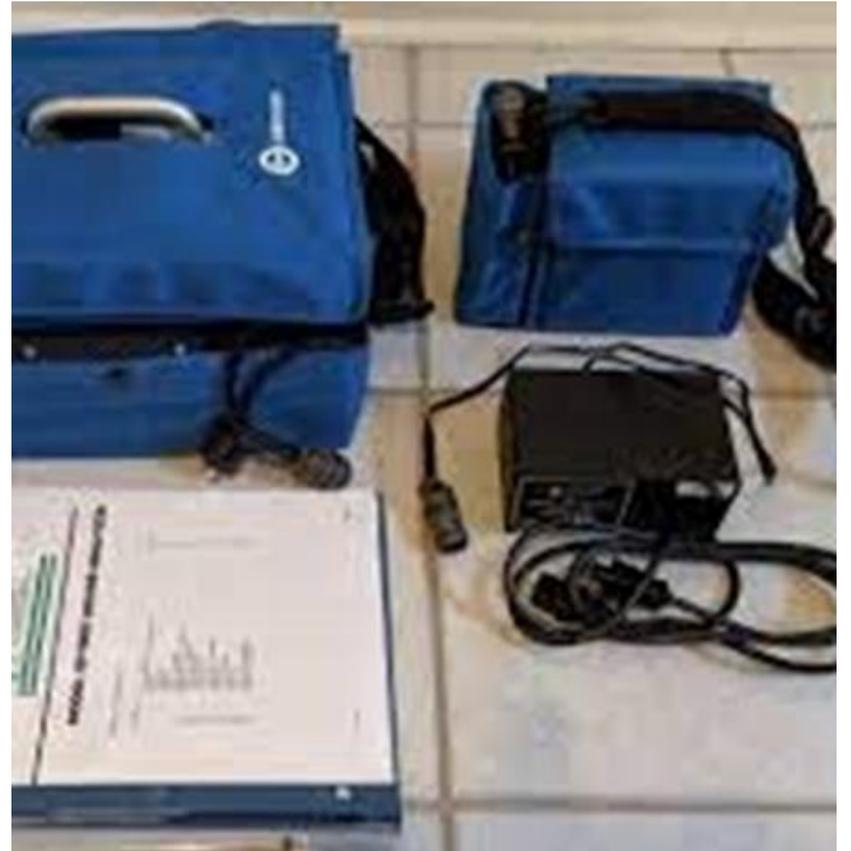
- no requirement to secure tenting around structures undergoing fumigation,
- ineffective devices used to detect pesticide levels inside of structures, and
- failure to attend mandatory training for residential pesticide applicators who conduct fumigations.

Additionally – the report recommended requiring site-specific Fumigant Management Plans and developing a comprehensive incident database.



# OIG Audit instructed EPA to conduct testing to verify effectiveness of clearance devices

- May 2021, the Agency released the Analytic Chemistry Branch's (ACB) efficacy testing results of clearance devices. <https://www.regulations.gov/document/EPA-HQ-OPP-2009-0136-0104>
- Report concluded that only two of the tested models can effectively detect SF at the clearance level:
  - **CLIRCheck** is more effective in detecting SF at 1ppm level than other models. (Accuracy = 61% and 78%; False negatives = 0% and 22%)
  - **FumiSpec-Lo** could be effective - average readings are lower than expected. (Accuracy = 90% and 70%; False negatives = 10% and 30%)



# Early Mitigation and Registration Review of SF



Early mitigation in response to OIG audit is focused only on **residential fumigations**



Registration Review will evaluate **ALL** uses of sulfuryl fluoride

# Audit requirement Completed!

## Incident Data System (IDS) to track pesticide poisoning incidents

EPA receives information about pesticide incidents from a variety of sources:

- pesticide manufacturers (registrants) - required to submit reports of unreasonable adverse effects from their products;
- reporting by the public through other entities (state regulators for pesticide enforcement);
- information submitted directly to EPA;
- the National Pesticide Information Center (NPIC); and
- the American Association of Poison Control Centers.

<https://www.epa.gov/pesticide-incidents/introduction-pesticide-incidents>



# SF Proposal Posted for Public Comment for 120-days

The Agency published the *Sulfuryl Fluoride Draft Interim Re-entry Mitigation Measures Memorandum* and supporting documents for public comment.

25 May 2021

23 Sep. 2021

The public comment period was extended and was open for a total of 120 days, until September 23, 2021.

**EPA received over 130 comments.**

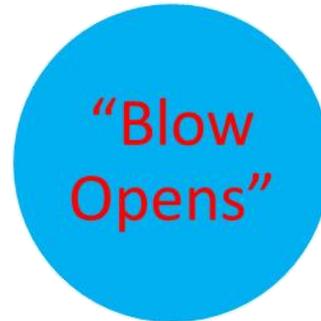
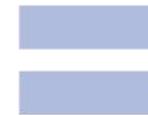
# Significant Comments on Proposal to Remove the SF ExplorIR Clearance Device from SF Labels

- This is the most used clearance device in the field
- Registrant coordinated with fumigation industry “SF Advisory Panel” to support SFExplorIR with new data submission to the Agency.
- **Data were submitted and determined to be unacceptable**



# Substantive Comments on Proposed Aeration Procedure – California Aeration Plan(CAP)

- Costly to implement - need time to acquire new equipment, tarps, inlets, stacks, more personnel, and training
- May not be appropriate for regions with high winds and rain, which result in more “Blow Opens”
- Recommended waiting to require CAP when all uses are considered under Registration Review



September 2022, EPA participants attended a Fumigation Workshop was hosted by:



- Association of Structural Pest Control Regulatory Officials (ASPCRO)
- National Pest Management Association (NPMA)
- Florida Department of Agriculture and Consumer Services (FDACS)



# Classroom and Hands on Education





# EPA Revised Early Mitigation Shared with Stakeholders

**March/April/May 2023:**

EPA-conferred with registrants and stakeholders on the details of the revised mitigation and implementation schedule.

Stakeholders included Industry representatives, ASPCRO, State lead agencies, PCO's, States,

SFIREG/AAPCO/Regions in OPP Special Purpose Call 3/27/23

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# EPA's Website for Structural Fumigants

The Agency established webpages dedicated to sulfuryl fluoride:

1. General information about sulfuryl fluoride
2. Sulfuryl fluoride clearance devices
3. Guidance on sulfuryl fluoride clearance device testing
4. Sulfuryl fluoride stewardship plans
5. Sulfuryl fluoride site-specific structural fumigation site logs

<https://www.epa.gov/ingredients-used-pesticide-products/sulfuryl-fluoride>

## Related Information



- [Sulfuryl Fluoride Clearance Devices](#)
- [Guidance on Sulfuryl Fluoride Clearance Device Testing](#)
- [Stewardship Plans](#)
- [Sulfuryl Fluoride Site-Specific Structural Fumigation Site Log](#)

# Early Mitigation Implementation

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## June 2023:

EPA-Published *Revised Mitigation and Response to Comments on the Draft Interim Re-entry Mitigation Measures Memorandum*

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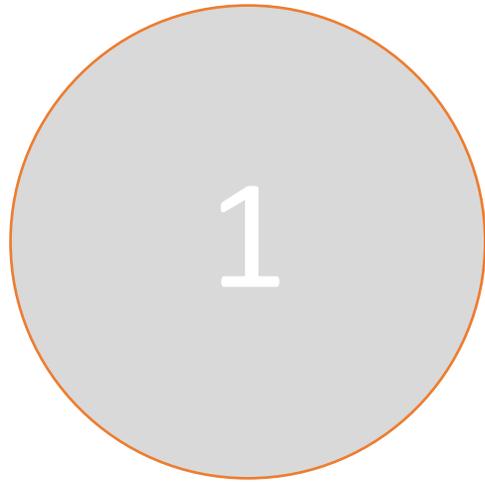
Sulfuryl fluoride labels are required to be submitted the EPA with the revised label language.

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Existing stocks of the current labels (old language) are allowed for 12 months.



# Next step = Registration Review of SF



Early mitigation in response to OIG  
audit focused only on **residential  
fumigations**



Registration Review - Update risk  
assessments for  
**ALL** uses of sulfuryl fluoride



Thank you - Questions?

For more information on sulfuryl fluoride, please see EPA's docket, EPA-HQ-OPP-2009-0136, available at [www.regulations.com](http://www.regulations.com).  
For more information contact Moana Appleyard at [appleyard.moana@epa.gov](mailto:appleyard.moana@epa.gov)