

Sulfuryl Fluoride Regulatory Update

2025 ASPCRO Annual Conference

Tim McPherson, VP Regulatory Affairs

August 29, 2025



U.S. EPA

Registration Review

Vikane® gas fumigant OIG Label Mitigations



VIKANE

PROFUME

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US EPA – Registration Review Overview

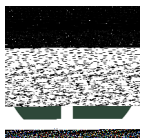
- ▶ EPA reviews each registered pesticide at least every 15 years to ensure that each pesticide can carry out its intended function(s) without creating unreasonable adverse effects to human health and the environment.



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US EPA – Registration Review History

- ▶ **June 2009** - EPA opened the docket.
- ▶ **November 2009** - EPA issued the Final Work Plan (FWP).
- ▶ **2013** - EPA issued the data call-in (DCI) (3 years later than FWP).
 - ▶ All data and waivers are under review by EPA.

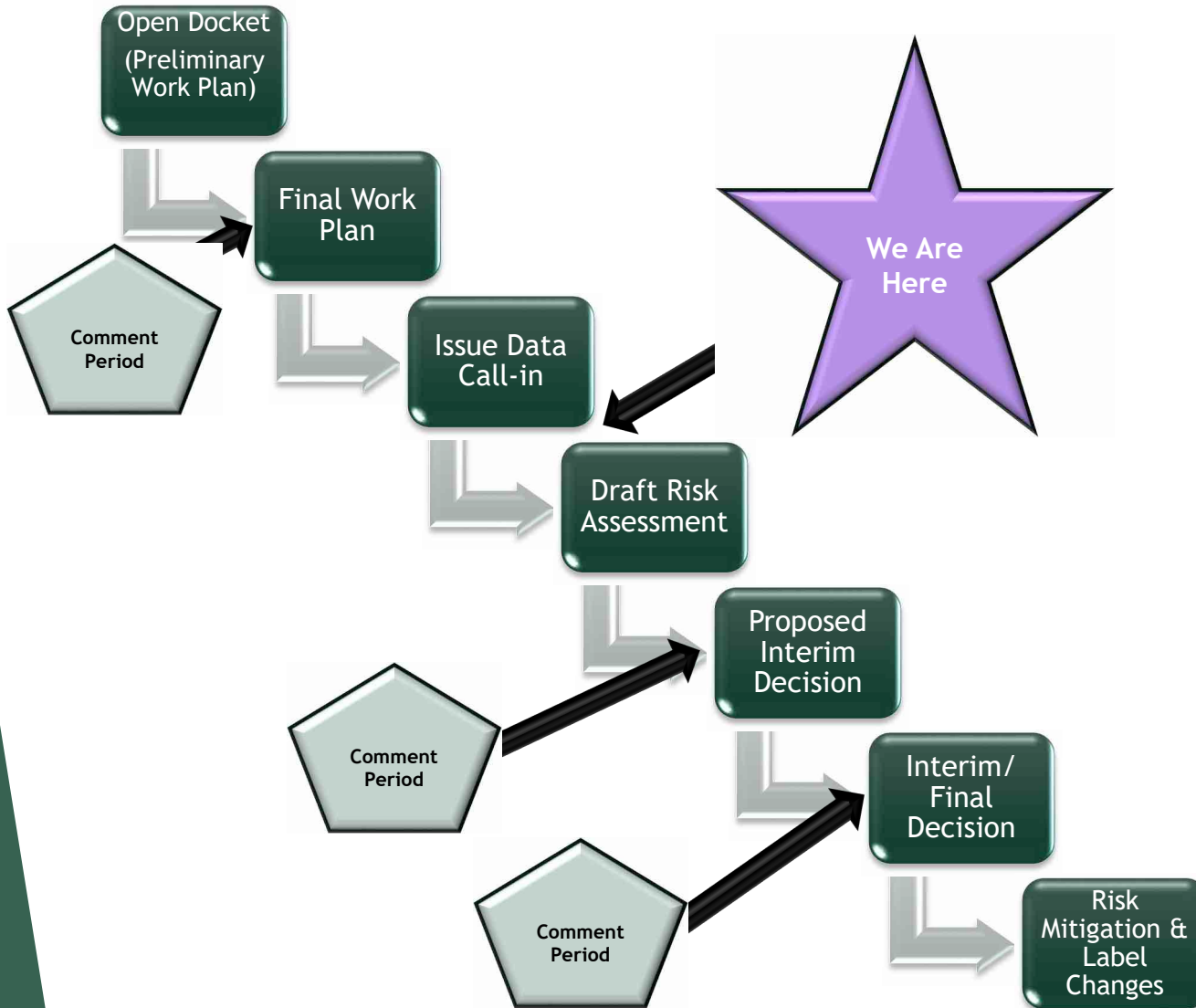


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US EPA – Registration Review



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US EPA – Registration Review

Currently:

- ▶ EPA is preparing the draft risk assessments.
- ▶ March 2025 - EPA indicated that the assessments are delayed, and the timing will be determined later this year.
- ▶ Douglas continues to work with EPA on inputs for exposure modeling.



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US EPA – Registration Review

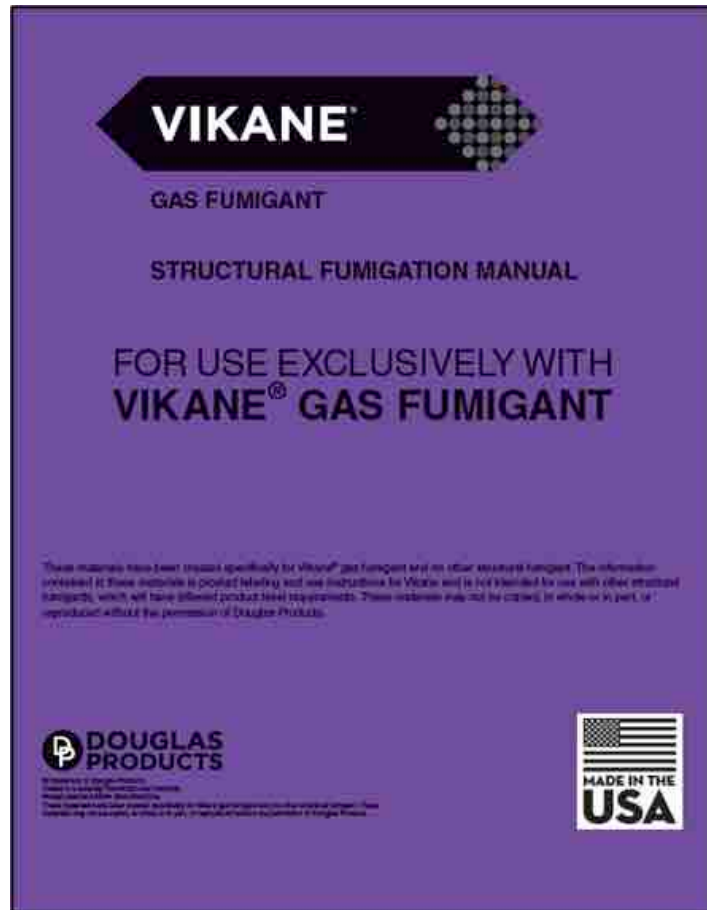
- ▶ Douglas is working with stakeholders to establish Advisory Panels for all registered uses of SF (residential structural, commodity, empty storage, QPS, etc.).
- ▶ Douglas and NPMA are working with EPA to schedule a field visit for a commodity/empty storage fumigation later this year.



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US EPA- Vikane[®] gas fumigant OIG Label



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Chemical Safety

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

Report No. 17-P-0053

December 12, 2016



History of the US EPA OIG Report

2016 - EPA's Office of the Inspector General (OIG) conducted an audit to assess whether EPA's Office of Pesticide Programs should implement additional measures to prevent deaths and serious injuries from residential fumigations.



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US EPA – Vikane[®] gas fumigant OIG Label

OIG's 4 Recommendations to EPA were:

- ▶ Evaluate label changes for SF including (a) requirements to prevent access to fumigation tents during fumigation; and (b) site-specific fumigation management plans (FMPs).
- ▶ Implement label changes that clearly define criteria for meeting SF applicator stewardship training requirements.
- ▶ Conduct an assessment of SF clearance devices to validate effectiveness in detecting required clearance levels.
- ▶ Establish milestone completion date(s) for incident data base initiative (not SF-specific).



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US EPA – Vikane® gas fumigant OIG Label

History Continued

- ▶ **September 2021** - the SF Advisory Panel submitted comments to docket for EPA review.
 - ▶ Over 130 public comments were submitted by all stakeholders.



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US EPA – Vikane[®] gas fumigant OIG Label

History Continued

- ▶ **November 2023** - EPA published amended final interim re-entry mitigations.
- ▶ **November 2023** - Douglas submitted amended labels to EPA.
- ▶ **July 11, 2024** - EPA accepted the revised Vikane label including mitigations developed from their OIG investigation.



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US EPA – Vikane® gas fumigant OIG Label

History Continued

- ▶ **December 2024** - all states accepted the new labelling.
- ▶ **July 11, 2025** - all new cylinder sales by Douglas must include the new labelling.
 - ▶ **Any old labelling in the channel of trade can be used indefinitely.**

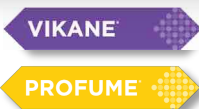


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US EPA – Vikane® gas fumigant OIG Label

Label Revisions

More detailed information on these labelling revisions is included in the 2025 Douglas Products Annual CaretakersSM Program for Vikane.



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Label Revisions- Clearance Devices

Clearance Devices

- ▶ With respect to clearance devices, the EPA-required the following label amendments:
 - ▶ remove all references to individual clearance devices being “approved”; and
 - ▶ refer readers to EPA’s SF website “for more information and a list of effective clearance devices.”
 - ▶ SF Explor IR Plus added to the list of effective devices.



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Label Revisions- Clearance Devices

Clearance Devices

- ▶ The EPA SF website currently lists the CLIRCheck, FumiSpec-Lo and **SF-ExplorIR Plus (added January 24, 2025)** as “Effective” and the SF-ExplorIR and the Interscan as “Not Effective” based on EPA’s performance criteria and internal testing done by EPA scientists at a government laboratory utilized for residue chemistry testing.



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Label Revisions- Clearance Devices

A designation of “Not Effective” or “Effective” on EPA’s website has no regulatory significance for purposes of compliance with the new label or FIFRA.



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The SF-Explor IR Plus

- ▶ The SF-ExplorIR Plus has upgraded Firmware, compared to that of the SF-ExplorIR, such that it reports sulfuryl fluoride concentrations in 0.5 ppm increments.
- ▶ SF-ExplorIR Plus units will be available from Spectros Instruments at some point in the near future, but Douglas Products does not know the exact timing.
- ▶ Spectros may also be able to upgrade some existing SF-ExplorIR devices into SF-ExplorIR Plus units. Any questions concerning the availability and pricing of SF-ExplorIR Plus units or upgrades should be directed to Spectros Instruments.
- ▶ How to ID an SF-ExplorIR Plus:
 - ▶ Currently, at the beginning of the initial warm-up the LED will display “SF-ExplorIR” or “SF-ExplorIR Plus” to identify which model the unit is. Additionally, the SF-ExplorIR Plus reports sulfuryl fluoride concentrations (ppm) in 0.5 increments (e.g., 0, 0.5, 1.0, 1.5, 2.0, etc.), whereas the SF-ExplorIR reports sulfuryl fluoride concentrations (ppm) in whole integer increments (e.g., 0, 1, 2, etc.).



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Vikane[®] gas fumigant OIG Cylinder Label- Visual Cues



Pre- OIG cylinder label
for Vikane[®] gas fumigant

Made in the USA:
“USA” on the top.



Revised cylinder label for
Vikane[®] gas fumigant

Made in the USA: “Made in
the USA” on the bottom.



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Questions and Thank You!



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