

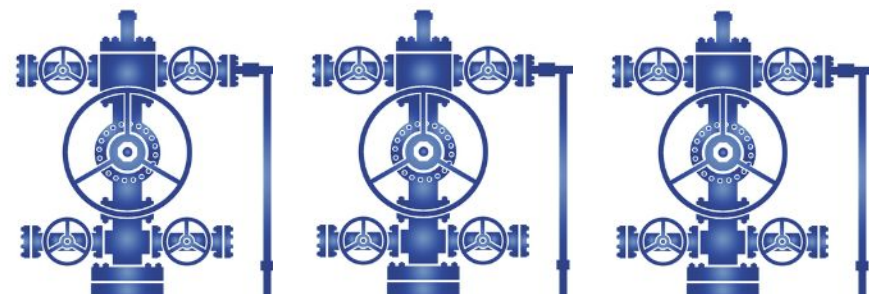


EPA's Super Emitter Program in the Oil and Natural Gas Sector (New Source Performance Standards, Subparts OOOOb and OOOOc)



GeoXO ACX Science Team Meeting Agenda

May 9th, 2024



Crude Oil and Natural Gas Operations: Where EPA's NSPS Rules Apply

Production & Processing

EPA's methane proposal covers equipment & processes at:

1. Onshore well sites
2. Storage tank batteries
3. Gathering & boosting compressor stations
4. Natural gas processing plants

Natural Gas Transmission & Storage

EPA's methane proposal covers equipment & processes at:

5. Compressor stations
6. Storage tank batteries

Distribution *(not covered by EPA rules)*

7. Distribution mains/services
8. City gate
9. Regulators and meters for customers

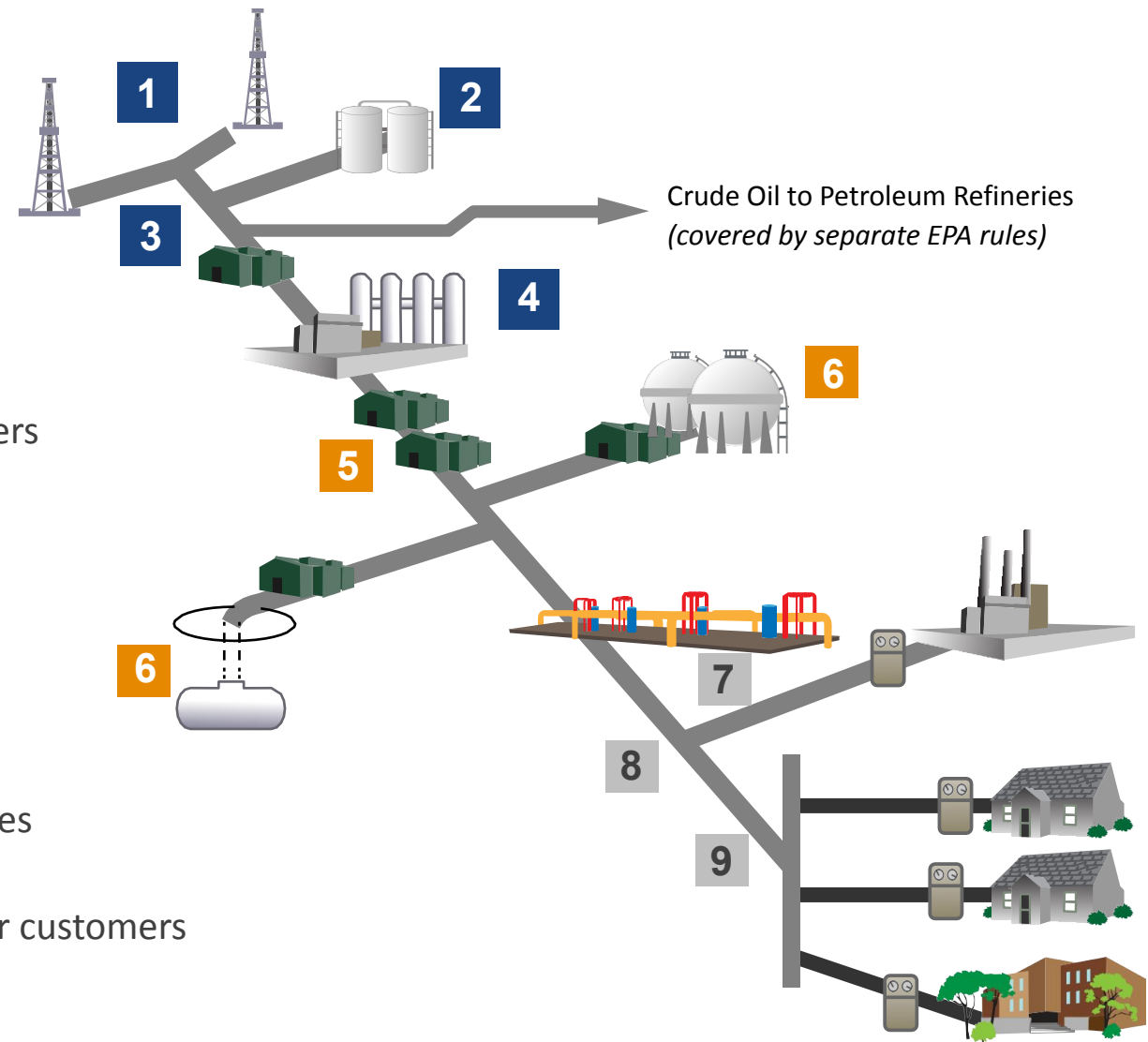


Figure adapted from American Gas Association and EPA's Natural Gas STAR Program

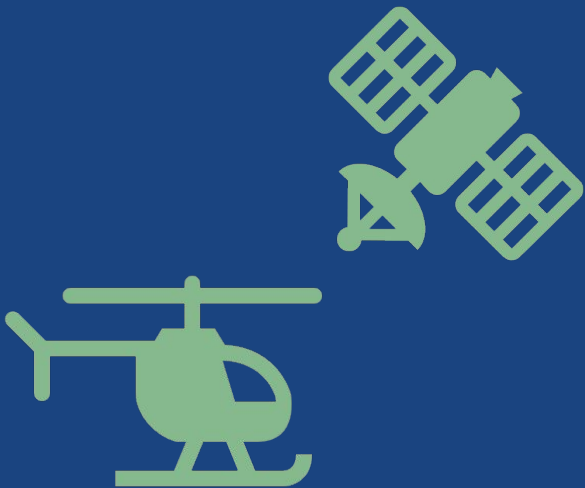
The Super Emitter Program: Background

Leverages 3rd party expertise to find large leaks and releases known as “super emitters”

EPA will provide a strong oversight role and ensure the program operates with a high degree of integrity, transparency, and accountability

Only EPA-approved remote-sensing technologies may be used.

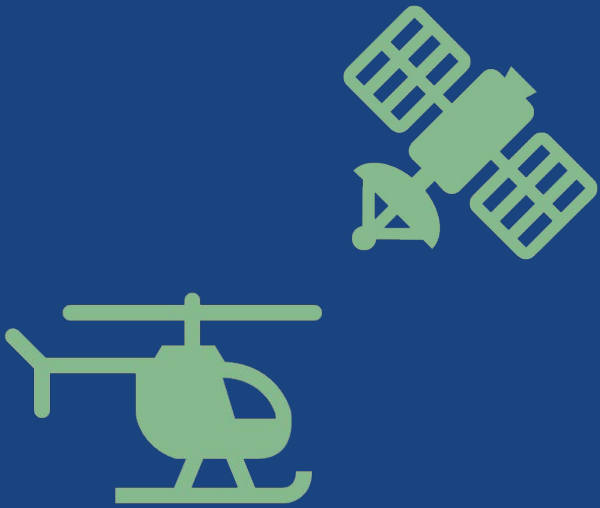
EPA will make super emitter data publicly available on a timely basis



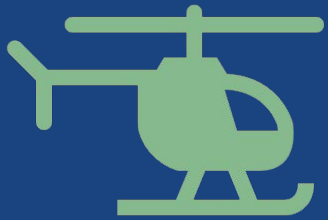
The Super Emitter Program:

A Super-Emitter event is an emission event which represents an emission that is >100 kg/hr of methane from an oil and natural gas facility using remote sensing technology

- No restrictions on the measurement technology, measurements must be collected off-site and spatially resolute to within 60 meters.
- Expected early participants are those entities conducted are aerial surveys and satellite data retrieval.
- EPA has a defined process for approving the technology that's evaluates the detection capabilities and the underlying protocol for operation.
 - Evaluation is focused on empirical verification of the measurement application.



The Super Emitter Program: Certification of 3rd Party Identifiers



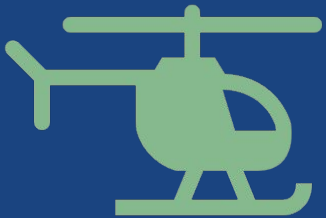
Certification of 3rd Party Notifier

- Separate agency function from the approval(s) of methane detection measurement technology.
- Any entity may request to be a 3rd party notifier, subject to meeting certification requirements.
- Technology providers may choose to become notifiers.

The certification request must include:

- General Identification
- Description of methane detection technology being applied.
- Curriculum vitae of the certifying official
- Standard operating procedure(s)
- **A Quality Management Plan**

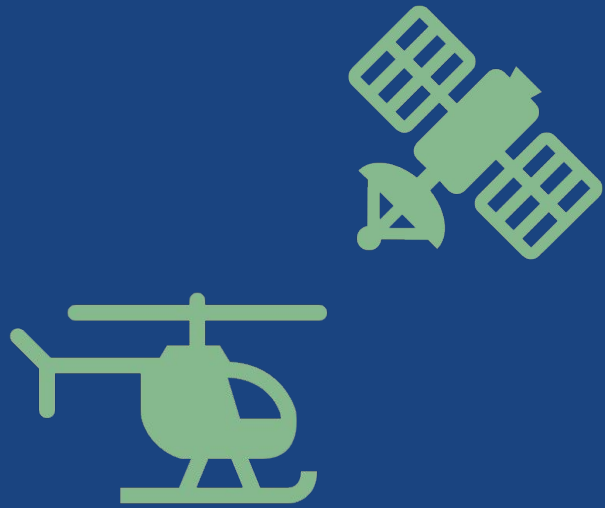
The Super Emitter Program: Certification of 3rd Party Identifiers



Upon approval

- Once certified, the 3rd party notifier will receive a unique notifier ID which will be posted at:
www.epa.gov/emc/third-party-certifications
- Gain the ability to provide notification to the Super Emitter Portal at:
<https://www.epa.gov/compliance/super-emitter>
- Required to maintain the following records to retain certification status:
 - Records for all surveys conducted or sponsored
 - Record of any notification to EPA
 - Records or identification of databases used

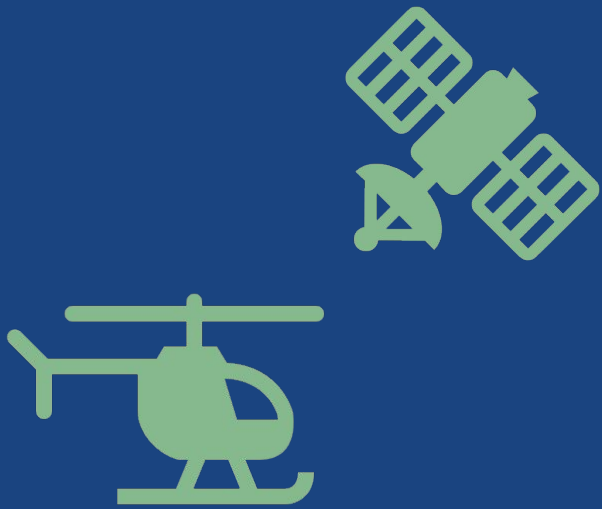
The Super Emitter Program: Notification of Super-Emitter Events



3rd Party Notifications

- Submit notifications to EPA with **15 calendar days** after detection of a super-emitter event
- Submitted into the Super Emitter Program Portal (<https://www.epa.gov/super-emitter>) and must include:
 - Unique 3rd party Notifier ID
 - Date of detection
 - Location of event in *latitude and longitude* coordinates
 - Owner(s) or operator(s) of an oil and natural gas facility within *50 meters* of the coordinates
 - Method used by the 3rd party to identify the owner(s) or operator(s)
 - Identification of the detection technology
 - Reference to the approval of the technology
 - Documentation (*i.e. imagery*) depicting the detected event
 - Quantified emission rate of the event in kg/hr
 - Attestation statement

The Super Emitter Program: Notification of Super-Emitter Events



Upon receipt of notification:

- EPA will evaluate the notification for completeness and accuracy
- When the notification meets these conditions, EPA must:
 - Assign a unique notification identification number
 - Provide notification to the owner(s)/operator(s)
 - Post the notification (except for the owner(s)/operator(s) attribution) at <https://www.epa.gov/super-emitter>
- **EPA then notifies the owner(s) or operator(s)**

After EPA notifies owner(s) or operator(s)

- Owner(s) or operator(s) must initiate an investigation with **5 days** and report the results to EPA within **15 days**.

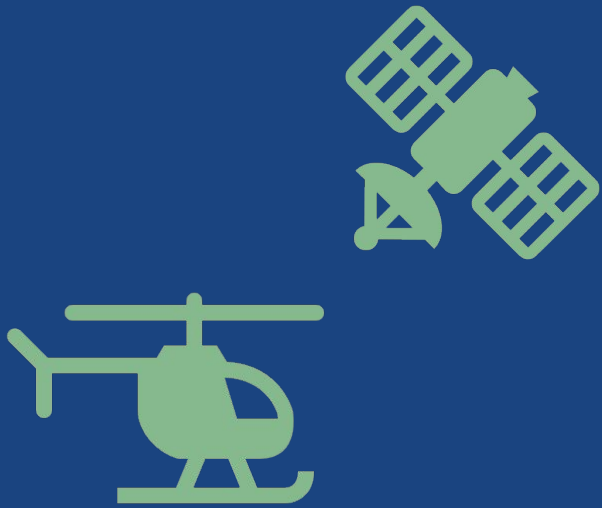
The Super Emitter Program: Identification of Super-Emitter Events



Actions to identify possible cause of Super Emitter event:

- Review any maintenance activities
- Review all monitoring data from control
- Review any fugitive emissions survey performed
- Review data from any continuous alternative technology systems
- Screen the entire well site, centralized production facility, or compressor station with OGI, EPA Method 21, or an alternative test method(s)

The Super Emitter Program: Identification of Super-Emitter Events



Reporting Super-Emitter Event

- The owner or operator must submit **an attestation** that the report is complete and accurate
- **The report must also include the following:**
 - Notification Report ID
 - Date and Time of *end of SE event*
 - Confirmation that you are the owner or operator of the oil and gas facility within the immediate area (i.e., 50 meters)
 - General identification for the facility
 - If the affected facilities/equipment is subject to NSPS 0000/a/b or EG 0000c
 - If **unable** to identify the source:
 - Confirmation that all possible investigations have been conducted
 - If **able** to identify the source:
 - ID of the source
 - If source is subject to NSPS 0000/a/b or EG 0000c

Thank you and Questions ?