

Section 112(g) Preconstruction Review for New and Reconstructed HAP Sources and Methyl Bromide Regulatory Status

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Standards*

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Overview

- Methyl Bromide (MeBr) Regulatory Status
- Fumigation Process
- Fumigation and the Clean Air Act Section 112(g) Process
- Ongoing/Upcoming Work on Fumigation

MeBr Regulatory Status

- Regulated as an Ozone Depleting Substance (ODS) under Clean Air Act Title VI and Montreal Protocol
 - Phased out in 2005 except for certain exemptions:
 - Critical Use Exemptions for agricultural uses
 - Quarantine and Preshipment (QPS) exemption for movement of commodities in trade
- Regulated as a VOC under CAA Title I
 - No known RACT determinations
 - Few BACT/LAER determinations (all CA)
 - Petition to delist as a VOC- evaluation currently on hold
- Regulated as a HAP under CAA Title I
 - No listed source categories, no MACT standards
- Registered under FIFRA
 - Office of Chemical Safety and Pollution Prevention considering increasing boundary of “exclusion zone”

How MeBr Fumigation for QPS is Conducted

- Products are loaded into a fumigation chamber or contained under a tarp or other impermeable material
 - May be done within a building or outside on a concrete slab
- MeBr is injected into the chamber or under the tarp for a specific period of time, from a few hours to a few days
- MeBr is then vented from the chamber/tarp to the atmosphere, either through a stack or using fans
- The USDA regulates the fumigation process, and a representative of APHIS is generally present



Photo from UNEP Brochure

What is 112(g)?

Fun Fact

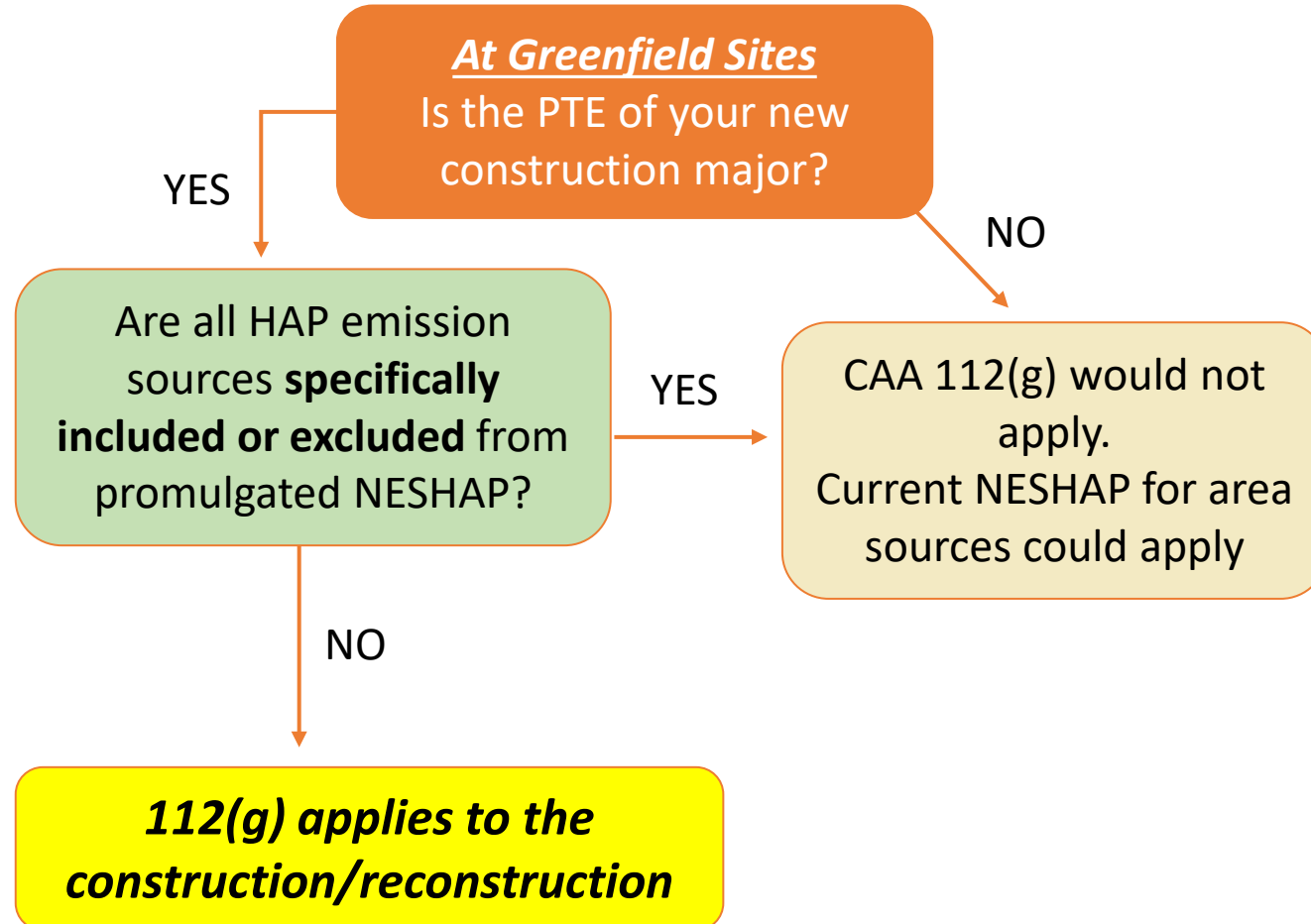
112(g) is the ONLY place in the CAA where the term MACT is spelled out. We “borrowed” it for 112(d)

Section 112(g)(2) of the Clean Air Act

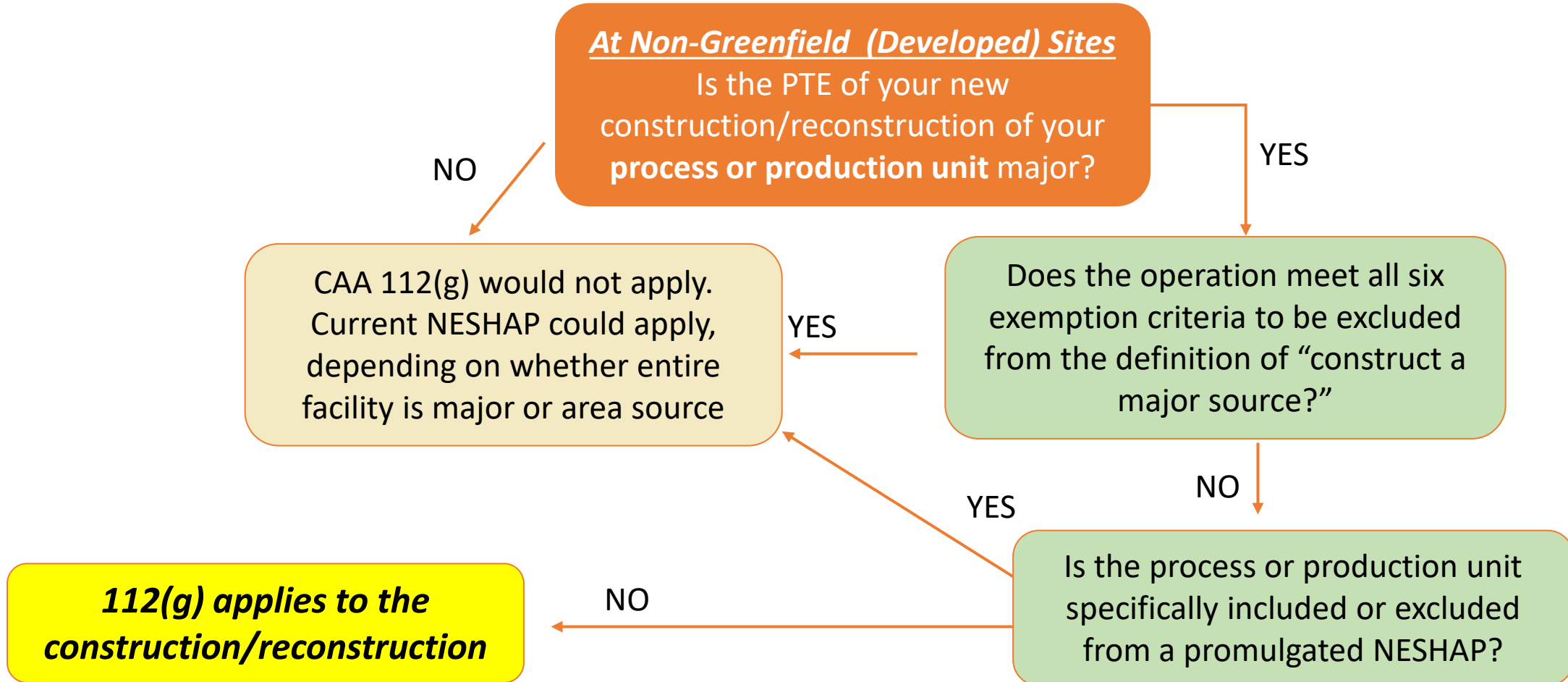
(A) {applied to modification of existing sources, not yet implemented}

(B) After the effective date of a permit program under subchapter V of this chapter in any State, no person may **construct or reconstruct any major source** of hazardous air pollutants, unless the Administrator (or the State) determines that the **maximum achievable control technology (MACT)** emission limitation under this section for **new sources** will be met. Such determination shall be made on a **case-by-case basis where no applicable emission limitations have been established** by the Administrator

Bottom Line: When is 112(g) Triggered?



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Possible Exemption for Developed Sites

- For developed sites, it is not considered to be a construction/reconstruction of a process or production unit IF permitting authority determines all of the following:
 - Emissions controlled by equipment previously installed at the same site
 - Emissions control represents LAER, BACT, T-BACT or state air toxic MACT
 - Percent control efficiency for emissions of HAP will be maintained
 - Provided notice and comment on above 3 points
 - If anyone asserts LAER, BACT, T-BACT or state air toxic MACT, permitting authority must determine prior determination remains adequate
 - All requirements are applicable under 504(a) and incorporated into title V



Case-by-Case MACT Based on Available Information

- Analysis must be developed in two phases based on the requirements of CAA 112(d) - based on available information
 - **Step 1:** Determine the MACT floor. This *“shall not be less stringent than the emission control which is achieved in practice by the best controlled similar source”* [NO COST CONSIDERATION AT THIS STEP]
 - **Step 2:** Conduct beyond-the-floor analysis. “[T]he emission limitation and control technology ... shall achieve the maximum degree of reduction in emissions of HAP ... taking into consideration the costs...”
- If it is not feasible to establish a numeric standard, then a work practice standard may be adopted, per CAA 112(h)(1)
- Must also include everything else a federal NESHAP does: testing; monitoring, reporting, recordkeeping to demonstrate compliance

Planned Fumigation Work

- Early stages of an industry characterization study for fumigation facilities
- Document the commercial fumigation industry using publicly available info (state/federal permits, NEI, TRI, ECHO, trade journals, USDA information, etc)
 - Facility List
 - Process Overview (raw materials, air emission points, control devices, etc)
 - PTE of HAPs and CAPs (if possible)
 - Permit limits (including any BACT, LAER), CBC HAP limits, etc



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Questions?