



**GOLDER**

# **MSW Landfill Air Rule Update: NSPS XXX**

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**History and Overview – What is “NSPS”? 01**

**Is NSPS XXX Applicable? 02**

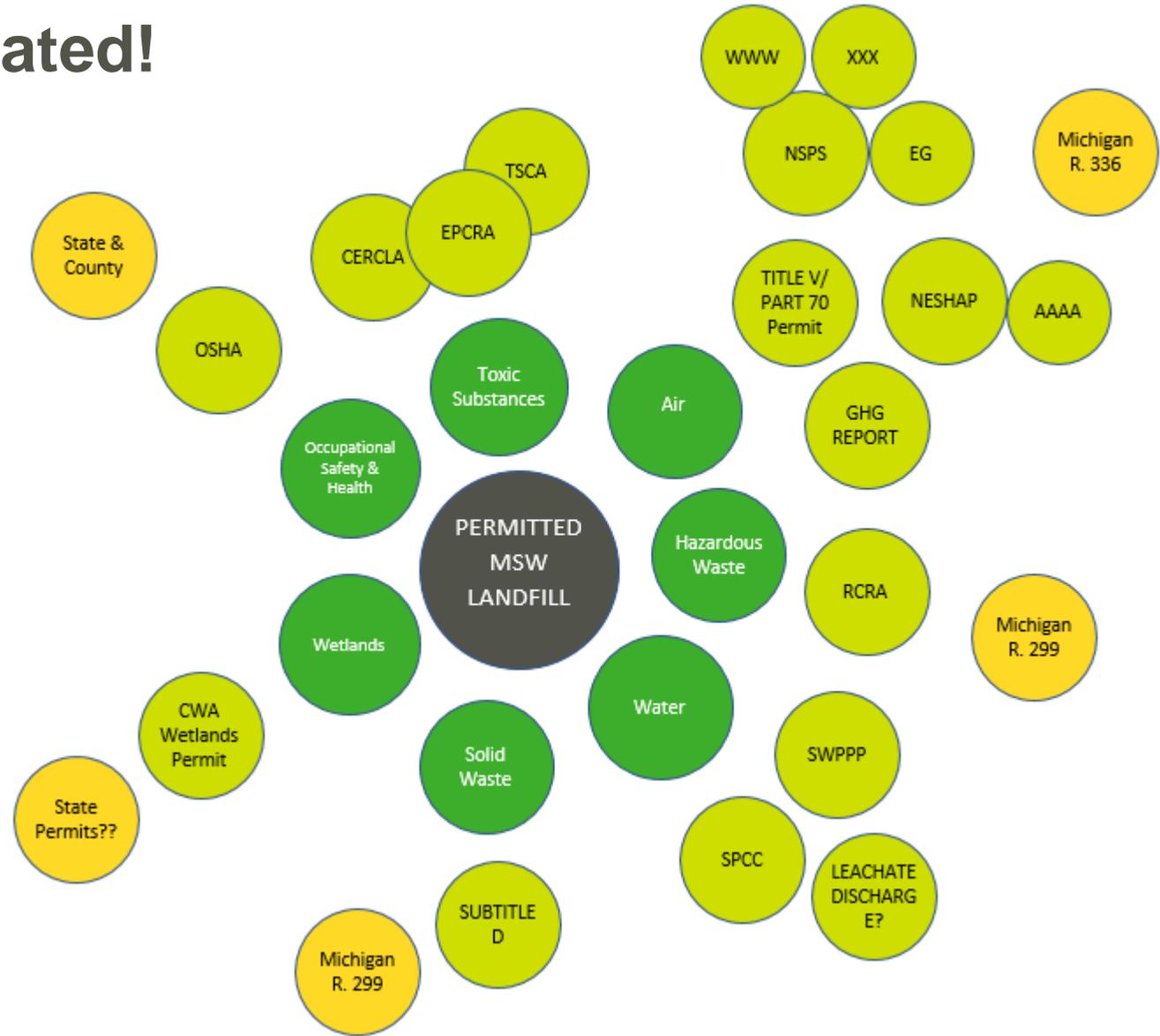
**Rule Changes – NSPS WWW vs XXX 03**

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# Landfills are Highly Regulated!



# NSPS Subpart XXX



# What is “NSPS”?

## NEW SOURCE PERFORMANCE STANDARD RULE BASICS

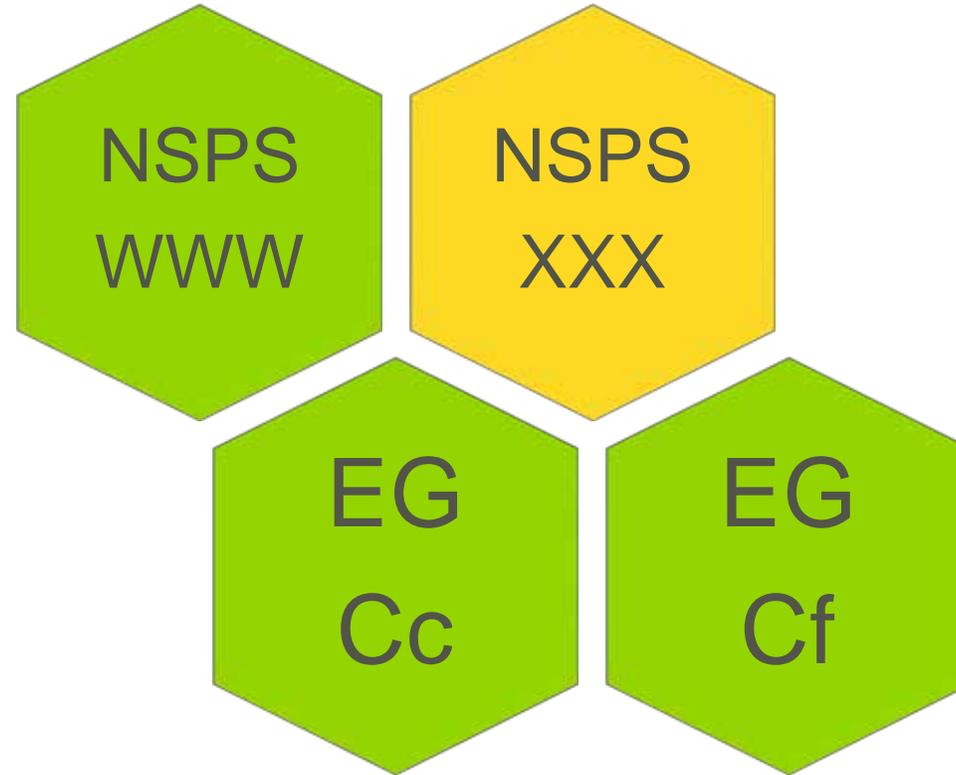
- Federal rules to control pollutants from new sources
- 40 CFR Part 60; Subpart A (general) and Subparts B through UUUU (~90 source-specific rules)
- Specific categories of sources:
  - Diesel engines – NSPS III A.K.A. “NSPS Quad i”
  - Landfills – NSPS WWW “triple W” & NSPS XXX “triple X”
- EPA looks at large numbers of similar sources and sets minimum emission standards

# What NSPS Rules Apply to Landfills?



(there may be others)

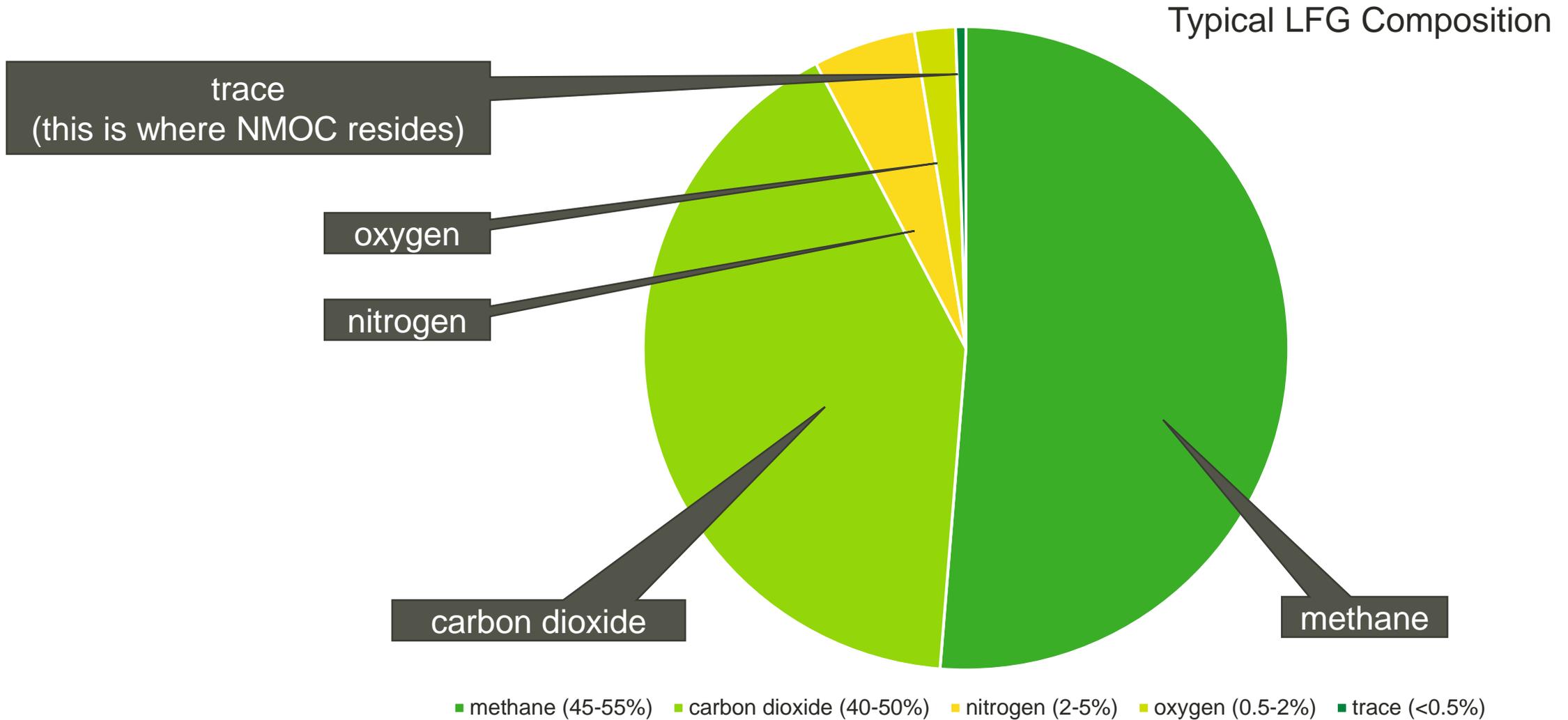
# What NSPS Rules Apply to Landfills?



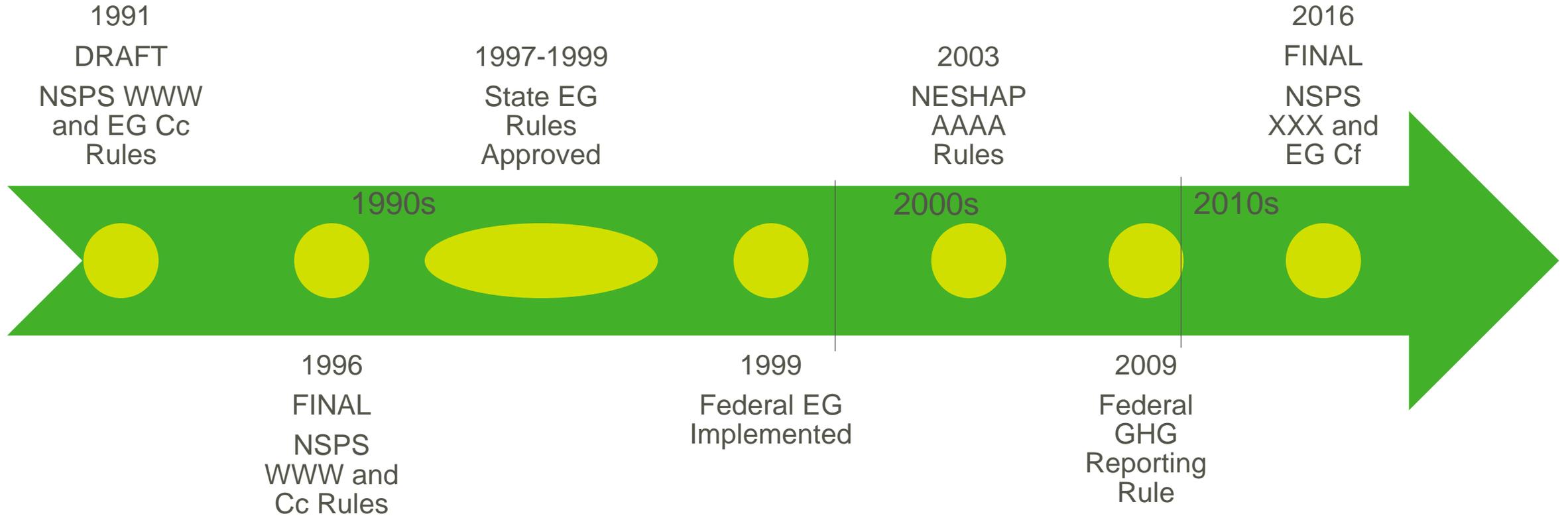
# What Does NSPS XXX Accomplish?

- Establishes requirements for collection and control of non-methane organic compounds (NMOC)
- Landfill size and NMOC generation trigger different requirements
- What is NMOC?

# What Does NSPS XXX Attempt to Do?



# Brief History of Landfill Air Rules

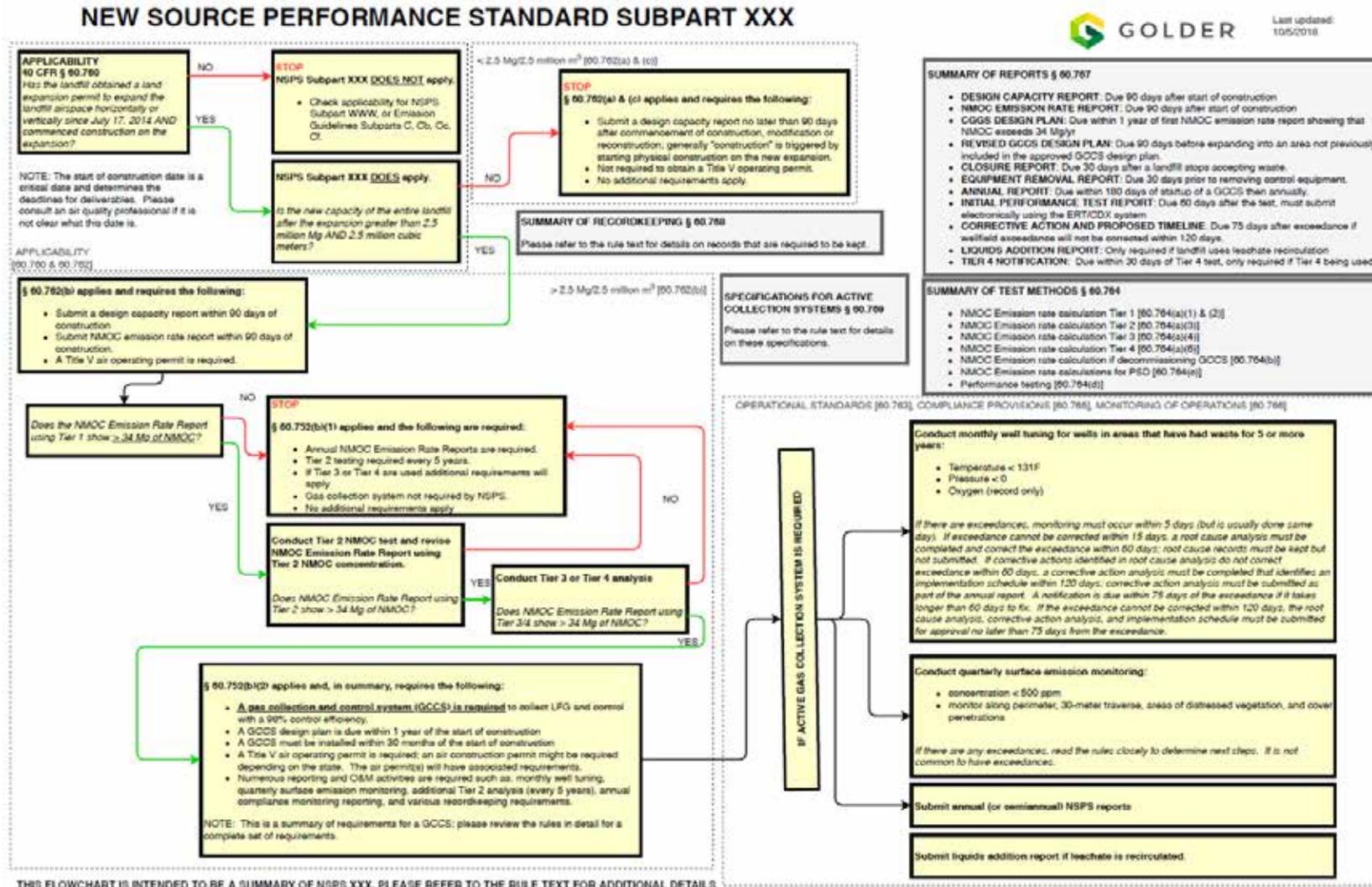


# What is the “CONSTRUCTION” Date?

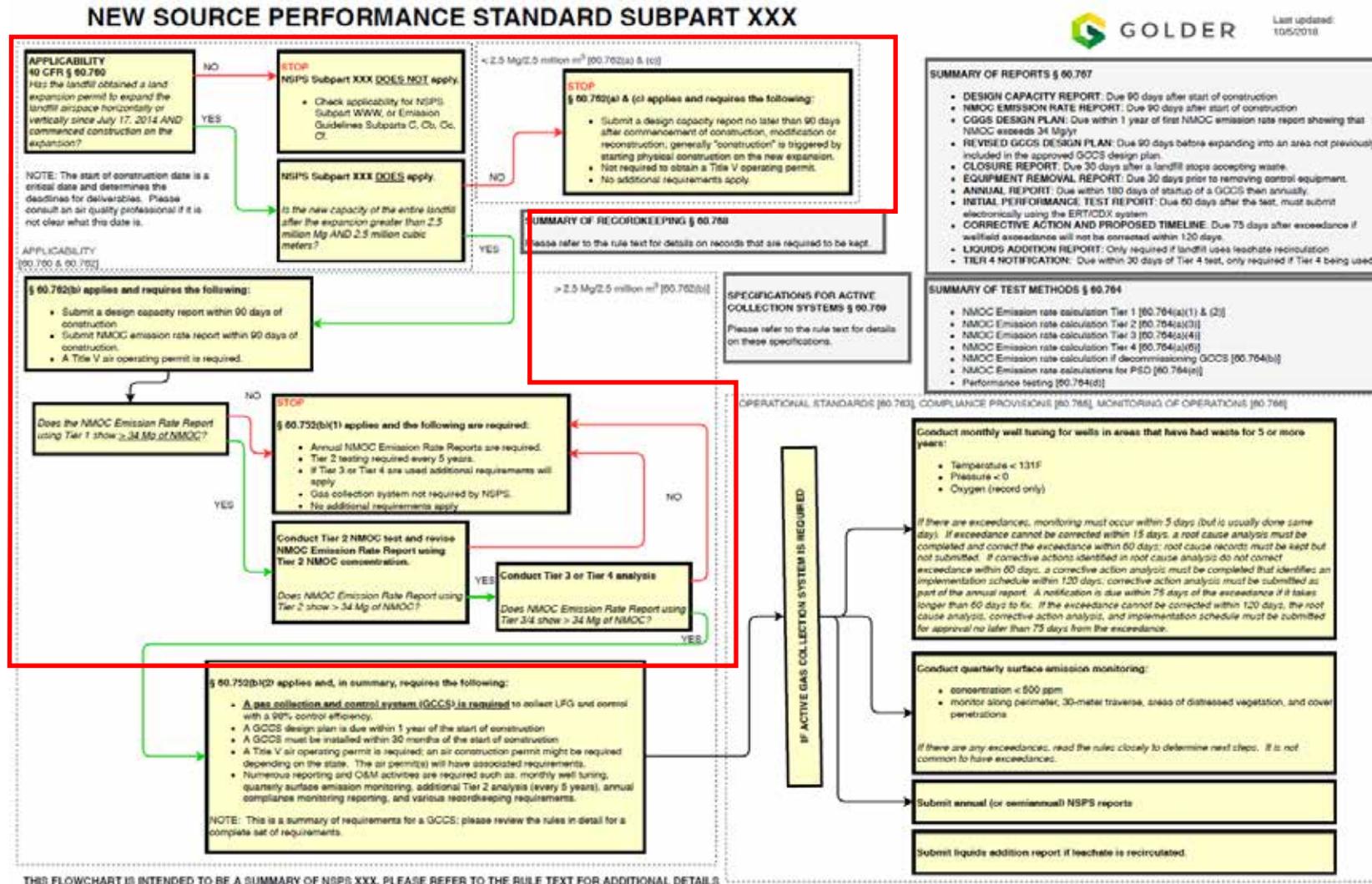
“CONSTRUCTION” MEANS FABRICATION, ERECTION, OR INSTALLATION OF AN AFFECTED FACILITY. – 40 CFR PART 60 SUBPART A

- Day a horizontal or vertical airspace expansion permit is issued?
- Day excavation begins for the landfill/expansion?
- Day waste is put in place?
- What if daily cover is removed from an area that will become an expansion?
- What if the expansion is vertical only (waste limits are not altered)?

# Applicability: What Landfills Are Subject to NSPS XXX?



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- STEP #1: Has the landfill **started construction** on an expansion since **July 17, 2014**?
  - NO? → NSPS Subpart XXX DOES NOT APPLY; other rules such as NSPS WWW, or EG C, Cb, Cc or Cf may still apply.
  - YES? → NSPS Subpart XXX APPLIES; move to STEP #2.

# Applicability: What Landfills Are Subject to NSPS XXX?

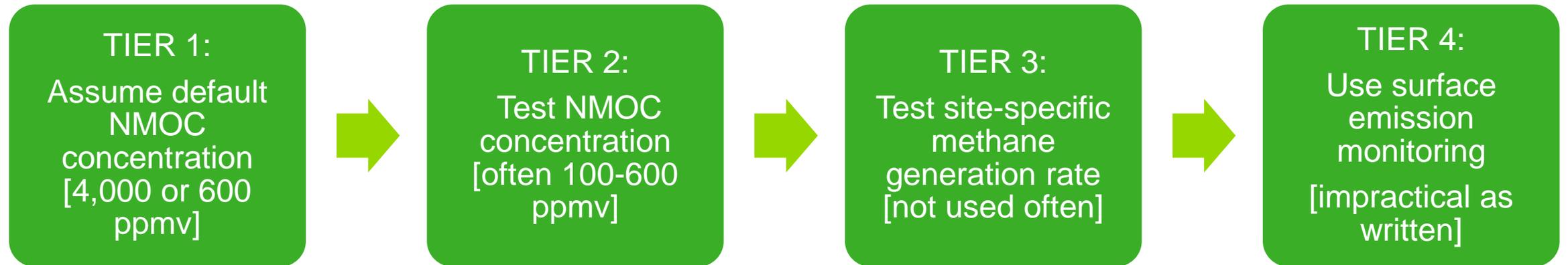
- STEP #2: Is the TOTAL design capacity of the landfill greater than **2.5 million Mg** AND **2.5 million cubic meters**?
  - NO (to either)? → NSPS Subpart XXX APPLIES in a very limited manner.
    - Landfill must submit a design capacity report within 90 days of start of construction, THAT IS IT.
  - YES (to both thresholds)? → Move to STEP #3.
    - Landfill must submit a design capacity report AND NMOC emission rate report within 90 days of **construction**.
    - Additionally, a Title V air operating permit is required.
    - Move to STEP #3 to determine if there are more requirements.

# Applicability: What Landfills Are Subject to NSPS XXX?

- STEP #3: Does the NMOC emission rate report show that more than **34 Mg/year** of NMOC are generated by the landfill?
  - NO? → Submit the following:
    - Annual NMOC Emission Rate Report.
    - If using Tier 2, re-test NMOC every 5 years.
    - If using Tier 3, additional requirements will apply.
    - GCCS will not be required by the rule.
  - YES, but using Tier 4? → GCCS not required, but Tier 4 requirements apply.
  - YES, but not using Tier 4? → Submit the following:
    - GCCS design plan within 1 year of construction.
    - GCCS system must be installed within 30 months of construction.
    - Lots of O&M and monitoring requirements will apply.

# What Are Tier 1, Tier 2, Tier 3, Tier 4?

TIERS 1-3 USE A LANDFILL GAS MODEL TO ESTIMATE NMOC GENERATION

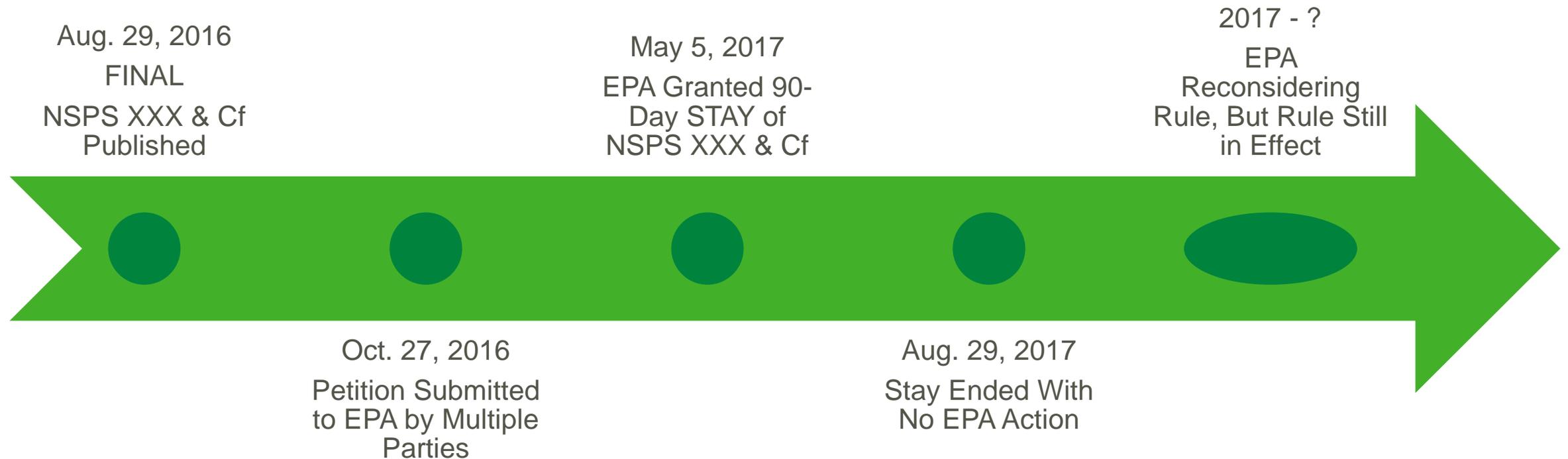


# Some Differences Between NSPS XXX and NSPS WWW

## ARE CHANGES GOOD OR BAD?

NSPS WWW Requirement	NSPS XXX Requirement
NMOC < 50 Mg/yr	NMOC < 34 Mg/yr
Oxygen must be < 5%	Oxygen no longer must be < 5%
Surface scans @ 30 m intervals	Surface scans @ 30 m intervals AND cover penetrations, GPS coordinates (3 m)
Tier 1, 2, or 3	Tier 1, 2, 3, or 4

# Rule Reconsideration/Stay/Future



# What Did the Petition Discuss?

- Tier 4 is not a practical option
- Annual liquids reporting is burdensome
- Corrective action timeline procedures are complex
- Overlapping applicability with other rules
- Definition of cover penetration
- Design plan approval by agencies

These are some of the possible items EPA is reconsidering.

# How is Michigan DEQ Implementing NSPS?

- XXX
- Cf



# Practical Examples

## LEARNING: UNDERSTAND THE DATE OF “CONSTRUCTION”

Case #1: Was under impression that they had to comply with NSPS XXX starting on the date they received land expansion permit.

Case #2: Was unsure if the removal of daily cover from an area that had been permitted for an expansion would trigger “construction” of the expansion.

# Practical Examples

## LEARNING: BE AWARE OF THE RULES

Case #3: Began construction on expansion and due to start of construction right about when the rule was published was not aware of NSPS which requires submittals within 90 days of construction. Landfill missed deadline for design capacity and NMOC report; nearly missed the deadline to apply for the Title V operating permit; and was almost forced to install an active GCCS due to missing the report deadlines.

Case #4: Submitted a NMOC report in 2017 with a projection out to 2020 showing that NMOC will exceed the 34 Mg/yr threshold starting in 2020. Unnecessarily forced into compliance with NSPS Subpart XXX.



**Thank you.**

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