

New NSPS Standards for Subtitle D Landfills

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Background

- ▶ There are seven subparts that pertain to landfills, under Title 40 of the Code of Federal Regulations:
 - ▶ **40 CFR 60 Subpart Cc-** Emission Guidelines and Compliance Times for Municipal Solid Waste Landfills (construction, reconstruction, modification before 5/30/91)
 - ▶ **40 CFR 60 Subpart Cf-** Emission Guidelines and Compliance Times for Municipal Solid Waste Landfills (construction, reconstruction, modification before 7/17/14)
 - ▶ **40 CFR 60 Subpart WWW-** Standards of Performance for MSW landfills that commenced construction, reconstruction, modification on or after 5/30/91 but before 7/18/14
 - ▶ **40 CFR 60 Subpart XXX-** Standards of Performance for MSW landfills that commenced construction, reconstruction, modification on or after 7/17/14
 - ▶ **40 CFR 62 Subpart GGG-** Federal Plan Requirements for MSW landfills that commenced construction prior to 5/30/91 and have not been reconstructed or modified since 5/30/91
 - ▶ **40 CFR 62 Subpart OOO-** Federal Plan Requirements for MSW landfills that commenced construction prior to 7/17/2014 and have not been reconstructed or modified since 7/17/2014
 - ▶ **40 CFR 63 Subpart AAAA-** National Emissions Standards for Hazardous Air Pollutants: Municipal Solid Waste Landfills



Background

- ▶ Prior to 2014, a landfill could be potentially subject to Emission Guidelines Subpart Cc, NSPS Subpart WWW, Federal Plan Subpart GGG and NESHAP Subpart AAAA.
- ▶ Rather than modify these, EPA promulgated Emission Guidelines Subpart Cf, NSPS Subpart XXX, Federal Plan Subpart OOO.
- ▶ **Subparts Cc and Cf** indirectly apply emission guidelines to landfills. These subparts direct states, local, tribal agencies to develop their own state plans (SIP) to implement the emission guidelines. These would apply depending on when the landfill is constructed, reconstructed, or modified.
- ▶ If a state doesn't develop a SIP or EPA does not approve it, then EPA will develop a federal plan. These are codified under **Subparts GGG and OOO**. These subparts are applicable depending on when the landfill is constructed, reconstructed, or modified.
- ▶ New and existing landfills are regulated under **Subparts WWW and XXX**, depending on when the landfill was constructed, reconstructed, or modified.
- ▶ **Subpart AAA** regulates hazardous air pollutants and its applicability to landfills depends on the size of the landfill, NMOC emission rates, and HAP emission rates.



40 CFR 60 Subpart WWW

- ▶ Applies to MSW landfills that began construction, reconstruction, or modification on or after 5/30/91 but before 7/18/2014
- ▶ This is the subpart referenced in most Title V Air operating permits issued to MSW landfills.
- ▶ If the design capacity of the landfill is less than 2.5 million cubic meters by volume, then submit an initial design capacity report to MDEQ.
- ▶ If the design capacity is greater than 2.5 million cubic meters by volume and the calculated Non Methane Organic compounds (NMOC) emissions are calculated to be:
 - ▶ Under 50 Mg per year, then the NMOC emission rate needs to be recalculated on an annual basis and a report submitted to MDEQ.
 - ▶ Above 50 Mg per year, then a gas collection and control system (GCCS) design plan has to be submitted to MDEQ for approval, AND a collection and control system installed within 30 months of the date the NMOC rate was calculated to be above 50 Mg/year.
- ▶ After installation of the GCCS, the surface emissions of methane shall be monitored along the perimeter of the collection area.
- ▶ A closure report needs to be submitted to MDEQ within 30 days of the last waste acceptance.



40 CFR 60 Subpart XXX

- ▶ Applies to MSW landfills that began construction, reconstruction, or modification on or after 7/17/2014
- ▶ If the design capacity of the landfill is less than 2.5 million cubic meters by volume, then submit an initial design capacity report to MDEQ.
- ▶ If the design capacity is greater than 2.5 million cubic meters by volume and the calculated Non Methane Organic compounds (NMOC) emissions are calculated to be:
 - ▶ Under 34 Mg per year, then the NMOC emission rate needs to be recalculated on an annual basis and a report submitted to MDEQ.
 - ▶ Above 34 Mg per year, then a collection and control system (GCCS) design plan has to be submitted to MDEQ for approval within a year, AND a GCCS installed within 30 months of the date the NMOC rate was calculated to be above 34 Mg/year.
- ▶ For the purpose of submitting a timely application, an application is to be submitted within 90 days after the date construction, reconstruction, or modification commenced.
- ▶ A closure report needs to be submitted to MDEQ within 30 days of the last waste acceptance.



40 CFR 63 Subpart AAAA

- ▶ All landfills subject to this subpart must comply with the applicable requirements after 9/27/2021
- ▶ Landfills that have accepted waste since 11/8/87 or have additional capacity to accept waste and meet one of these are subject to the requirements of this subpart:
 - ▶ Is a major source of hazardous air pollutants as defined in 63.2
 - ▶ Landfill is collocated within a major source
 - ▶ Landfill is an area source with a design capacity equal or greater to 2.5 million megagrams and 2.5 million cubic meters and estimated emissions equal or greater than 50 Mg/yr of NMOC.
- ▶ Landfills that have accepted waste since 11/8/87 or have additional capacity to accept waste that include a bioreactor and meet any one of these are subject to the requirements of this subpart:
 - ▶ Is a major source of hazardous air pollutants as defined in 63.2
 - ▶ Landfill is collocated within a major source
 - ▶ Landfill is an area source with a design capacity equal or greater to 2.5 million megagrams and 2.5 million cubic meters and it is not closed as of 1/16/03
- ▶ Requirements are very similar to those found in Subpart XXX, but this subpart has specific requirements for bioreactors



What does this mean for MS landfills?

- ▶ If your Title V Air Operating permit is up for renewal and there are no changes in the design capacity of the landfill:
 - ▶ Requirements for each additional subpart may be more explicitly stated in your permit.
 - ▶ Applicability condition for 40 CFR 63 Subpart AAAA may be added to your permit.
 - ▶ Applicability condition for 40 CFR 62 Subpart OOO.
- ▶ If you are looking to expand the landfill:
 - ▶ You may need an Air Permit to Construct to cover the expansion.
 - ▶ Title V permit will be modified to include the applicable requirements from Subpart XXX.



For assistance

Contact FC&E Engineering LLC, at 601-824-1860

