

**SMACKED BY THE MACT:
Landfills and North Carolina**

**Air Toxics
presented to
NSWMA
March 2005**

**Stacey A. Smith, P.E. & Matt Lamb
G.N. Richardson & Associates, Inc.
Raleigh, North Carolina
www.gnra.com**

State-wide NOVs

- ◆ **NC DAQ (Division of Air Quality) has issued Notices of Violation (NOVs) in early March of 2005 to all Title V MSW Landfills under its jurisdiction, claiming:**
 - ❖ **Non-compliance with Toxic Air Pollutant Guidelines contained in NCAC 2D.1104**

Landfill Air Regulations - NSPS

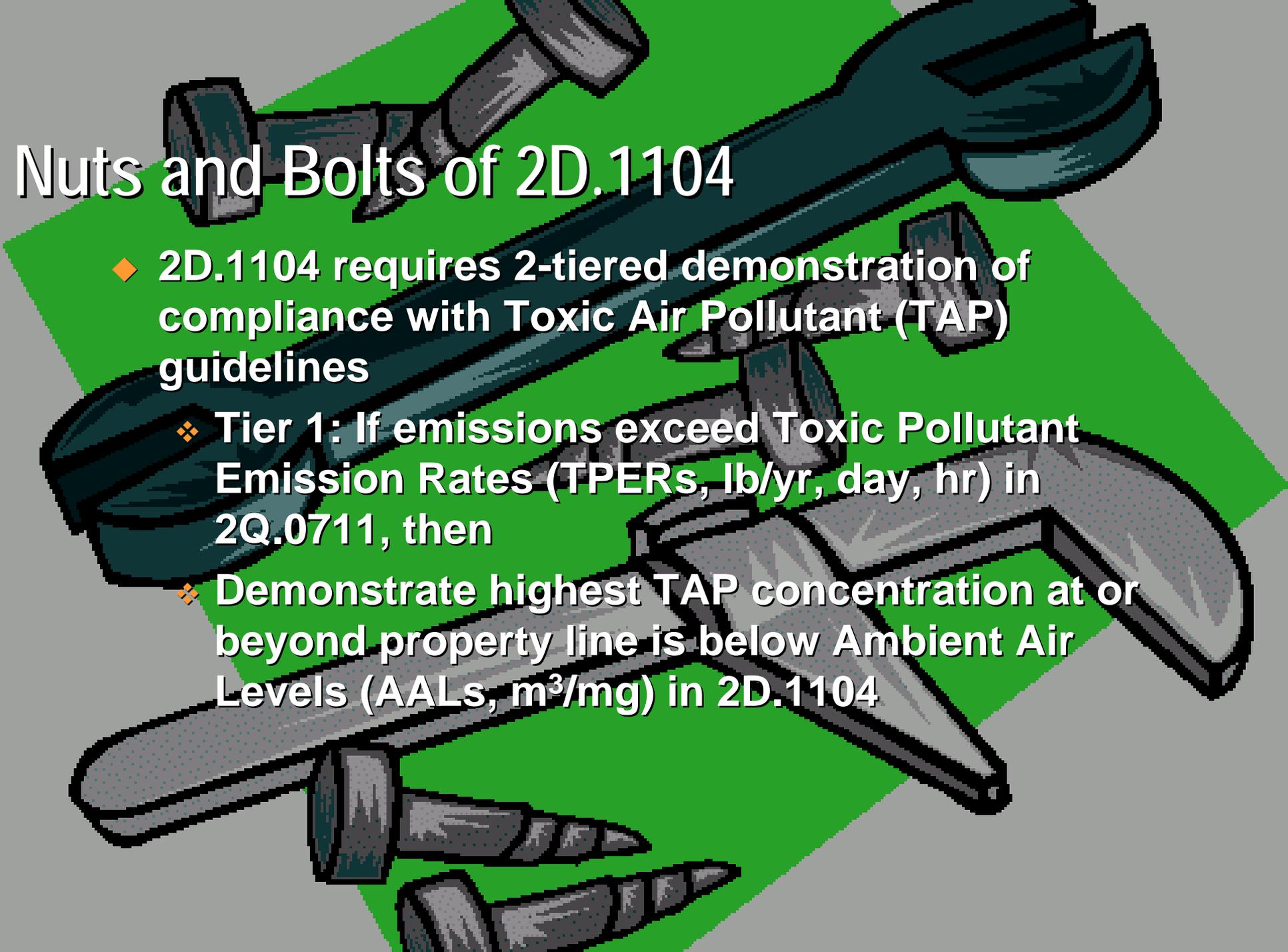
- ◆ **NSPS (New Source Performance Standards) for MSW Landfills, 40 CFR Part 66-Subparts Cc and WWW, promulgated March 12, 1996 requires control of landfill gas when the landfill capacity exceeds:**
 - ❖ **2.5 million m³ AND**
 - ❖ **2.5 million megagrams AND**
 - ❖ **NMOC emissions exceed 50 megagrams/yr**

Landfill Air Regulations - MACT

- ◆ **MSW Landfill MACT (Maximum Achievable Control Technology), 40 CFR Part 63-Subpart AAAA applies to those NSPS regulated landfills requiring control (NMOC emissions 50 Mg/yr or more), and requires:**
 - ❖ **Immediate control of landfill gas from bioreactors**
 - ❖ **Startup, Shutdown, & Malfunction (SSM) Plan**
 - ❖ **Semiannual Reporting**
 - ❖ **Continuous monitoring of control device operating parameters**

Landfill Air Regulations - 15A NCAC 2D.1104

- ◆ Both the NSPS and the MACT are federal rules
- ◆ NC rules must be AT LEAST AS stringent as federal rules
- ◆ Rule has been in effect since May 1, 1990, with several amendments and revisions
- ◆ 2D.1104 is a STATE-ENFORCEABLE ONLY rule



Nuts and Bolts of 2D.1104

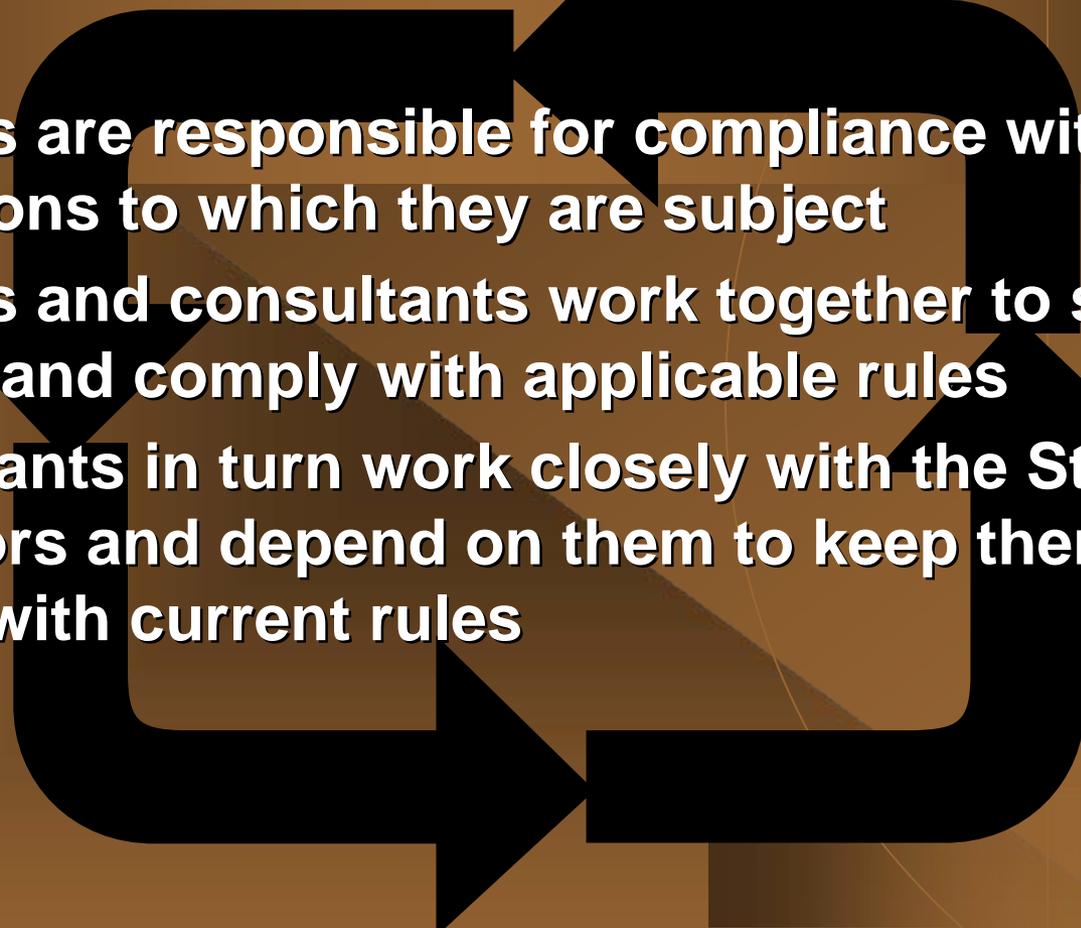
- ◆ 2D.1104 requires 2-tiered demonstration of compliance with Toxic Air Pollutant (TAP) guidelines
 - ❖ Tier 1: If emissions exceed Toxic Pollutant Emission Rates (TPERs, lb/yr, day, hr) in 2Q.0711, then
 - ❖ Demonstrate highest TAP concentration at or beyond property line is below Ambient Air Levels (AALs, m^3/mg) in 2D.1104

"Last MACT" Triggered 2D.1104

- ◆ "Last MACT": 2Q.0705 sets the deadline for compliance with 2D.1104 when the source is "required to comply with the last MACT or GACT"
- ◆ The last MACT that affects landfills is MSW Landfill MACT, 40 CFR Part 63-Subpart AAAA
 - ❖ Existing sources (commenced construction on/before November 7, 2000) MACT compliance deadline was January 16, 2004
 - ❖ New sources must comply when operations begin

REMEMBER: DEADLINE MAY BE DEFERRED IF NMOC EMISSIONS ARE < 50 Mg/yr

Compliance Food Chain



- ◆ Landfills are responsible for compliance with all regulations to which they are subject
- ◆ Landfills and consultants work together to stay abreast and comply with applicable rules
- ◆ Consultants in turn work closely with the State regulators and depend on them to keep them up to date with current rules

Where is the Missing Link?

- ◆ Landfills and their consultants have been in close contact with NC DAQ regarding the Landfill MACT since before it was proposed in 2000
- ◆ NC DAQ issued the “MACT Hammer” notice requiring landfills and other sources with proposed MACTs to notify the State
- ◆ The MACT was finalized January 2003
- ◆ NC DAQ provided guidance when requested on compliance with the MACT, which reiterated the federal requirements
- ◆ Compliance with 2D.1104 was not addressed

Permit Shield?

- ◆ **Title V permits are designed to encapsulate all of source's applicable air requirements into one document**
- ◆ **Permits issued as recently as September 2004 include NO MENTION of 2D.1104, 21 MONTHS FOLLOWING THE MACT PUBLISH DATE**
- ◆ **Permits currently in public review now address 2D.1104**

Confusing Guidance, Unclear Rules

- ◆ Landfills may have received vague or unclear guidance from regulators
- ◆ Documented correspondence may be interpreted to imply that landfill gas is exempt from compliance with air toxics compliance under NC DAQ's policy regarding "unadulterated fuels"
- ◆ Air rules (2Q.0705(c)) further cloud the issue:
"...unadulterated fuel combustion sources [shall demonstrate compliance] after receiving written notification from the Director..."
- ◆ What does it all mean???

Attempt to Clear the Air

- ◆ The “Last MACT” scheduled to be implemented was the “Boiler MACT”, finalized September 2004
- ◆ NC DAQ took this opportunity to begin communicating the requirements of 2D.1104 to the regulated community
- ◆ Landfills that either believed they were exempt from air toxics, or unaware of the requirements, contacted NC DAQ for guidance

“We’re Here to Help”

- ◆ **NC DAQ responded by stating that:**
 - ❖ **There was no good protocol for landfills to use to demonstrate compliance**
 - ❖ **Workshop was being prepared to address these issues**
 - ❖ **NC DAQ will perform any modeling required for the landfills**
- ◆ **DAQ scheduled a workshop to educate landfills on applicable air rules**
- ◆ **Unfortunately, the workshop invitations were sent out attached to the NOV's**

Where Do We Go From Here

- ◆ What can individual landfills do?

- ❖ Are you really covered?

Previous Tier 2 NMOC testing may defer the MACT

- ❖ What are your TPERs?

Previously submitted emission inventories or permit applications may demonstrate compliance with 2Q.0711, & therefore 2D.1104

- ❖ Perform modeling if TPERs are exceeded:
TAPs < than 2D.1104 AALs should be included in the NOV response

Let's Work Together

- ◆ A unified response to the NOV can be coordinated through industry groups including NSWMA and SWANA.
- ◆ NSWMA can address a letter that summarizes industry's stance on the NOVs and requests a meeting between NCDENR and affected facilities.
- ◆ Industry should meet with DAQ to air grievances and help them understand that this is "not just an NOV".
- ◆ This meeting should occur before the scheduled March 31 compliance workshop. Otherwise, the NOVs will likely dominate the agenda.

Possible Solutions

- ◆ **One or more of the following outcomes are hoped to take place:**
 - ❖ **Across the board rescission of the NOV's**
 - ❖ **Written record of DAQ's poor handling of the situation to be documented in the air files with the NOV**
 - ❖ **Improved communication between DAQ and the regulated community**
 - ❖ **Liaison between DAQ and Solid Waste Management division to provide another outlet for information on rules that affect landfills**