WHY YOUR KILN IS GOING TO MAKE EPA HATE YOUR BOILER

Tom Wood, Stoel Rives LLP
Portland, Oregon
Dave Like, Hampton Affiliates
Willamina, Oregon

The Good Old Days
Dry kilns (like bag houses) had “no” emissions
Sawmills operated under the permitting radar
No such thing as Title V permitting

Title V Arrives

- Mid 1990s, Title V permitting arrived
e.g., 1995, all applications due in Oregon
- New focus on emissions from sawmills
each state approach varied widely
  some sawmills credited with 100s of tons of PM; others with <10 VOC, whether endseal or kiln emissions, largely ignored
- Facility subject to Title V permit if:
  >100 tpy of PM, CO, NOx, SO2, or VOC
  >10/25 tpy HAPs

Dry Kiln Emissions

- First surprise: dry kilns have substantial VOC emissions
  - Appears to vary widely with species
  - Title V threatened but avoided for many
  - Minimal consideration of HAPs
  - Minimal consideration of temperature
- Second surprise: dry kilns have substantial methanol emissions
  - Varies widely with species
  - Varies depending upon temperature
  - Title V threatened based on dry kiln emissions: Have to include MeOH from: dry kilns, boiler, coatings, adhesives
- Third surprise: dry kiln emissions must be added to ALL other emissions from "source"
  - Can include separately managed glulam mill, plywood mill, or power plant, dry kilns located miles away, particleboard plant located nearby with common utilities, or power plant with common ownership
- Fourth surprise: hog fuel boiler has significant MeOH emissions
Not huge, but an additional ton or two out of 9 tons can kill you. 10 ton threshold means you must be <10, i.e., up to 9.44

End Result

Dry kiln emissions can force whole mill into "major source" status
- can mean your mill is overdue for Title V permit
- must comply with PCWP MACT by 2007
- bigger headache: boiler MACT by 2007
- other potential MACTs include: wood furniture, wood building products

What Dry Kiln Emissions?

Hampton Affiliates and Weyerhaeuser both performed testing on dry kilns
Hampton results:
130 MMBF per year mill can be a HAP major source based on dry kiln emissions alone, dependent, at least in part, upon dry kiln temperature

Why Should I Care?

If all you have are dry kilns
- Title V
- PCWP MACT (so what?)

If you have a hog fuel boiler
- Title V
- PCWP MACT (so what?)
- Boiler MACT (oh!???)

**PCWP MACT**
- Plywood and composite wood product
- Includes dry kilns regardless of whether they are freestanding sawmill
- No substantive requirements

**Boiler MACT**
- If your boilers are natural gas you are fine
- If you use oil or hog fuel, watch out

Western Dry Kiln Association 22 May, 2005
Unless you can risk out, an existing hog fuel boiler will be expected to have:
- Baghouse or ESP (PM/metals)
- Scrubber (HCLI)
- Ugly monitoring/reporting

**Why Hydrochloric Acid?**

- HCL off of salt logs
  - HCL directly related to salt content
  - If you have coastal mill or you get logs by rail from coast, this is a big potential issue
  - Emission estimates vary widely
  - Can add greatly to HAPs from source

**Can I Do Anything?**

- Title V and MACT applicability based on your mill’s capacity
  - Potential to emit
- What you actually do is irrelevant
- If it is not in a permit condition, it does not mean a thing.
- Your permit can memorialize a limit
- A permit condition can be:
  - Maximum temperature: must work based on maximum throughput
  - Emissions based on calculation protocol
  - EPA position: emission factors in permit; calculation protocol in permit; rolling 12-month total limit
- Need not consider southern yellow pine if you only run Douglas-fir
- If you run some pine and some fir, you could be assumed to run all pine
- Must take into account (and appropriately limit) all other sources that could also contribute
  - End-seal
  - Sapstain
  - Boiler
- Limit MUST be in place before compliance date for PCWP, boiler or any other applicable MACT
- Once in MACT, always in!
  - PCWP: 10/01/07
  - Boiler: 09/13/07

**Important to Avoid Surprises**

- Highly profitable business suing businesses that miss MACT deadlines or that lack Title V permits
- EPA has brutal history with wood products industry on this type of issue
- Agencies do talk to each other