Open Burning

Presented by:
The New Hampshire Department of Environmental Services

May 2, 2017
Agenda

✓ Pollutants & Health Risks
✓ History of Laws and Regulations
✓ Prohibited Materials
✓ What You Can Burn
✓ Starting A Fire
✓ Best Management Practices
Burning C&D, Household Trash, and Other Wastes

Puts you, your family, neighbors, and the environment at risk!
Pollutants

- Dioxin
- Formaldehyde
- Carbon Monoxide
- Hydrogen chloride gas
- Mercury, Arsenic, Lead, Chromium, Cadmium
<table>
<thead>
<tr>
<th>Item</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Wood</td>
<td></td>
</tr>
<tr>
<td>Plastic (#6) packaging</td>
<td></td>
</tr>
<tr>
<td>Plastic (#1) bottles</td>
<td></td>
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<tr>
<td>Diaper</td>
<td></td>
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<tr>
<td>Snack-size chip bag</td>
<td></td>
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<tr>
<td>Alkaline and lithium batteries</td>
<td></td>
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<tr>
<td>Spinning rod with line</td>
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<tr>
<td>Meal-Ready-To-Eat packaging</td>
<td></td>
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<tr>
<td>Miscellaneous tape</td>
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<tr>
<td>Plastic (#4) tray</td>
<td></td>
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<tr>
<td>Nickel-Cadmium batteries</td>
<td></td>
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<tr>
<td>Aluminum foil</td>
<td></td>
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<tr>
<td>Plastic bags</td>
<td></td>
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<tr>
<td>Plastic grocery bags</td>
<td></td>
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<tr>
<td>Plastic and foil packaging</td>
<td></td>
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<tr>
<td>Aluminum pop can</td>
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<tr>
<td>Plastic (#B2) plate</td>
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</tbody>
</table>

Lead In Ash - Relative Amounts Compared to Just Burning Wood

- Wood
- Nickel-Cadmium batteries
- Alkaline and lithium batteries
- Spinning rod with line
- Packaging for freeze-dried meals
- Plastic hot-beverage cup lids
- Plastic forks and spoons
- Snack-size chip bags
Why Be Concerned?

Breathing - Smoke harms your health (& wildlife)

Ingestion - Chemicals are deposited on soil, food and water
- Bio-accumulation in fish, animals, and birds you eat

Ash - Pollutants contaminate soil and food
- Pollutants leach into drinking and surface water

Haze - Smoke migrates onto your neighbors property
- Smoke contributes to regional haze
Health Impacts!

- Burning/watery eyes
- Skin rash
- Difficulty breathing
- Ulcerations of lungs
- Asthma attacks
- Kidney and liver
- Heat Disease
- Neurological
- Cancer
2016 Complaint type & Quantity

- ODOR
- OPEN BURNING (40 in 2014)
- FUGITIVE DUST
- TOXICS
- ASBESTOS
- OUTDOOR WOOD FIRED BOILERS
- OPACITY, STATIONARY SOURCE
- INDOOR AIR QUALITY
- MOTOR VEHICLE IDLING
- CFC
Open Burning Laws & Regs

RSA 125-C: *Air Pollution*

RSA 125-N: *Dioxin Reduction Program*

Env-A 1001: *Open Burning*
History of Open Burning Laws and Rule

1973 Rules in Effect, No Burning Tires
- *Env-A 1001*

2001 Banned Residential Trash Burning
- *RSA 125-N*
- *Env-A 1001 .06*
History of Open Burning Laws and Rules

2008 Banned the Burning of the Clean Wood Component of C&D.

- RSA 125-C:10-c
- Env-A 1001 .06
Prohibited Materials

✓ Combustible Domestic Waste \((Env-A \ 1001.06)\)
Prohibited Materials

☑ Construction and Demolition Debris (*Env-A 1001.09*)
Prohibited Materials

✓ Treated Wood (*Env-A 1001.05*)

Applies to any dimensional lumber, plywood, brush, fire-wood, pallets, cordwood, etc.

*Cannot be Painted, Stained, Pressure treated, Glued, Oily, Etc.*
Prohibited Materials

✓ Tires and Tubes (Env-A 1001.07)
Prohibited Materials

✅ Salvaging Operations (Env-A 1001.08)
C&D Exemptions!
Solid Waste Transfer Station Exemption
RSA 125 C:10-c

Solid Waste Transfer Stations can burn the incidental clean-wood component of C&D.
RSA 125 C:10-c

This section shall not apply to the incidental combustion, under the supervision of a solid waste facility operator, of untreated wood at a municipal transfer station subject to regulation under RSA 149-M.
What Does **Incidental** Mean to You?

Occurring merely by chance or without calculation.

Merriam-Webster 2016
Homeowner Exemption

Env-A 1001.05(e)

A single-family homeowner can burn the clean-wood component of C&D.
Env-A 1001.05(e)

On-site burning, by the owner of a private, single-family residence occupied by the owner, of clean (untreated) wood, provided the material originates on-site.

Not your second home
Not your vacation home
Not your rental property
Acceptable Things

You guessed it! Nothing Painted, Stained, Pressure treated, Glued, Oily, Etc.
Tree tops, limbs, saplings and tree cuttings, including attached leaves, which are 5 inches in diameter or less.
Helpful Signs

BRUSH & NATURAL WOOD ONLY.
ONLY BRUSH & SLASH.
NO TREATED, PAINTED, STAINED, OR VARNISHED WOOD.

BURN PIT
Acceptable Materials:
Brush & Small Trees
less than 5” diameter
UNPAINTED & UNTREATED LUMBER

DO NOT INCLUDE
Furniture of any kind
Demolition Materials or Plywood
Pressure Treated, Painted, Glued or Stained Wood
IF IN DOUBT PLEASE ASK AN ATTENDANT
Starting a Brush Fire
Starting a Brush Fire

No:
- Motor Oil
- Petroleum (i.e., Gasoline, Diesel, Kerosene, etc.)
- Hazardous-Wastes
- Vegetable Oil
- Coated Paper
You Will Need to Test the Ash and Properly Dispose.
A True Story – Don't Let this Happen to You!

Town was subject to enforcement. Town was responsible for $40,000 in testing, transportation and disposal cost.

Sitting in a 3.8-metre sea kayak and watching a four-metre great white approach you is a fairly tense experience.
Help Your Residents and Help The Environment!
Best Management Practices

✓ Inspect Delivery of Materials
✓ Instruct Residents on What’s Acceptable
✓ Periodically Inspect Burn Pile
✓ Use Alternatives to Burning
✓ Start Brush Fire Correctly
Thanks For All Your Efforts to Protect the Air We Breathe!
Demolition/Renovation Projects
Asbestos Hazards

NHDES receives 1200 demolition/renovation notifications per yr.
Homeowners can do their own asbestos abatement work...

**Note:**

- Only applies to single-family owner occupied residence. Must not be sold for six months after asbestos abatement.

- Must still follow the work practices, properly package, and properly dispose of the ACM per Env-A 1800, as would a Certified or Licensed contractor.
Asbestos

- Naturally Occurring Mineral

- Most Common Types
  - Chrysotile (Fibers)
  - Amosite (Needles)
  - Crocidolite (Needles)
Inhaling asbestos fibers can cause serious health effects. Fibers can be deposited within the lungs.

Hazardous Air Pollutant
First & Second Hand Exposure

- **You** (inhalation, clothing, shoes)
- Your Co-Workers
- Residents
- Family and Friends
Types of Diseases

- Lung cancer
- Mesothelioma
- Asbestosis

Asbestos fibers will lodge deep in lungs

10 to 40 years before symptoms
Some Common Products Containing Asbestos

- Vinyl Flooring - tile/sheeting, backing & mastics
- Boiler & Pipe Insulation and Cements
- Transite (Siding, Roofing, Pipe, etc.)
- Asphalt Roofing Materials
- High Temperature Gaskets
- Caulking and Putty
- Dry Wall, Plaster & Joint Compound
- Friction Devices
- Vermiculite
Did You Know?

You can still purchase products that contain asbestos!!!

Read The Product Labels!
Vinyl Floor Tile
Ceiling Tile
Roofing

- Shingles
- Flashing/Caulking
- Insulation
- Concrete or Asphalt Cements
Asbestos in the Waste Stream
BMP - Asbestos Waste

Ask the Resident/Contractor:

✓ Where did the waste material come from?

✓ Was an asbestos survey completed before beginning the demolition/renovation project?

✓ If so, was all asbestos properly removed and disposed of before bringing the waste to the transfer station?

✓ How old was the building from which the waste came from?
If you have any concerns:

- *Do not accept the waste.*
- *Handout NHDES’ Asbestos Brochure.*
- *Direct them to Contact NHDES for assistance.*