In Attendance:

**Voting Members**
- Clark Milne
- Rick Solie
- Donna Gardino
- Angela Speight
- Jackson Fox
- Patrice Lee
- Lee Hazen
- Ron Johnson

**Non-Voting Members**
- Cindy Heil, ADEC

**Facilitation Team**
- Jana Peirce

Priorities for Work Group Discussion

<table>
<thead>
<tr>
<th>Needs Fairbanks Modification</th>
<th>Impact/Priority</th>
<th>Wtd. Priority</th>
</tr>
</thead>
<tbody>
<tr>
<td>Public 14: Identify cost of ULSD heating oil at consumer level</td>
<td>75%</td>
<td>1</td>
</tr>
<tr>
<td>Public 15: Expanded incentives for conversion to natural gas</td>
<td>71%</td>
<td>2</td>
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<tr>
<td>Measure 51: Ultra-low Sulfur Heating Oil (Mandate use of ULSD for home heating oil with a 15 ppm sulfur limit)</td>
<td>75%</td>
<td>3</td>
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<tr>
<td>Public 16: Expanded incentives to offset ULSD transition</td>
<td>70%</td>
<td>4</td>
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<tr>
<td>Measures 49: Prohibit Use of Coal Burning Heaters</td>
<td>86%</td>
<td>5</td>
</tr>
<tr>
<td>EPA 3: Fuel Oil Boiler Upgrades</td>
<td>62%</td>
<td>6</td>
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<tr>
<td>R29: Increase Coverage of the District Heating System</td>
<td>61%</td>
<td>7</td>
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<tr>
<td>EPA 4: Fuel oil boiler operation and maintenance programs</td>
<td>58%</td>
<td>8</td>
</tr>
<tr>
<td>Public 12: State should use royalty gas</td>
<td>50%</td>
<td>9</td>
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<tr>
<td>R20: Transportation Control Measures (Vehicle Idling)</td>
<td>50%</td>
<td>10</td>
</tr>
<tr>
<td>Measures 48: Date Certain Removal of “Coal Only Heater”</td>
<td>43%</td>
<td>11</td>
</tr>
<tr>
<td>Measure 52: Operation and Sale of Small Used Oil Burners Prohibited</td>
<td>25%</td>
<td>12</td>
</tr>
<tr>
<td>Measure 53: No Use Sale or Exchange of Used Oil for Fuel, unless it Meets Constituent Property Limits</td>
<td>38%</td>
<td>13</td>
</tr>
<tr>
<td>Public 13: Start ULSD production in Borough</td>
<td>37%</td>
<td>14</td>
</tr>
<tr>
<td>Stakeholder 6: Diesel awareness around monitors</td>
<td>8%</td>
<td>15</td>
</tr>
</tbody>
</table>

Responses: 7  Modify for Fairbanks: 43%  Responses: 6  Impact (Wtd. Avg.): 50%
Responses: 7  Modify for Fairbanks: 86%

Responses: 6  Impact (Wtd. Avg.): 66%

Responses: 8  Modify for Fairbanks: 75%

Responses: 8  Impact (Wtd. Avg.): 70%

Responses: 8  Modify for Fairbanks: 25%

Responses: 8  Impact (Wtd. Avg.): 41%
Responses: 8  Modify for Fairbanks: 38%

Measure 53: No Use Sale or Exchange of Used Oil for Fuel unless it Meets Constituent Property Limits
1. Adopt as is
2. Modify for Fairbanks

Responses: 8  Impact (Wtd. Avg.): 37%

Measure 53: How big an impact would this have?
1. No impact
2. Small impact
3. Moderate impact
4. Significant impact

Responses: 8  Priority (Wtd. Avg.): 50%

R26: Transportation Control Measures (Vehicle Idling)
1. No
2. Low priority
3. Medium priority
4. High priority

Responses: 7  Priority (Wtd. Avg.): 61%

R29: Increase Coverage of the District Heating System
1. No
2. Low priority
3. Medium priority
4. High priority

Responses: 8  Priority (Wtd. Avg.): 62%

EPA 3: Fuel Oil Boiler Upgrades (Should the Work Group develop its own measures to address this?)
1. No
2. Low priority
3. Medium priority
4. High priority

Responses: 8  Priority (Wtd. Avg.): 58%

EPA 4: Fuel oil boiler operation and maintenance programs (Should the Work Group develop measures to do this?)
1. No
2. Low priority
3. Medium priority
4. High priority

Responses: 8  Priority (Wtd. Avg.): 50%

EPA 5: Diesel Awareness around Monitors (Should the Work Group develop its own measures to address this?)
1. No
2. Low priority
3. Medium priority
4. High priority

Public 12: State should use royalty gas (Should the Work Group develop its own measures to address this?)
1. No
2. Low priority
3. Medium priority
4. High priority
### Discussion

- **Measure 48: Removal of coal only heaters (Puget Sound, WA)**
  - Are there any NOASH that are coal-only (No)
  - How many coal heaters in Fbx, No. Pole?
  - Anyone beside Puget Sound adopted?

- **Measure 49: Prohibit coal heaters (Telluride, CO)**
  - What about coal-burning power plants? (Would need modification to exempt)

- **Measure 51: Ultra Low Sulfur Heating Oil (Missoula, MT)**
  - ULSD also reduces VOCs (like natural gas)
  - Is there adequate production and storage?
    - Tesoro/Endeavor says yes
  - Will requiring switch to ULSD lead to more people burning wood due to higher price for heating fuel? Question of Price Elasticity.
    - Ask Joe Little to provide info on study he did
  - Small difference in price from #2 to #1 heating oil, but dramatic difference in SO₂
    - 4 to 5 cents per gallon difference
    - #2 has 2500 ppm sulfur vs. 900 ppm for #1
    - Easy to switch over: just need to empty tank
    - #1 must be used in aboveground tanks in winter
- Burns cleaner so small savings in maintenance costs for homeowners (may be able to service boiler every other year)
- Diesel trucks are big emitters, high VOCs. Noticeable on monitors at school during pick up
- Need robust analysis of infrastructure costs for ULSD changeover.
  - Proprietary data, need 3rd party review?
  - EPA wants supply side costs, not just rack costs
  - Costs will be affected by natural gas costs
- EPA wants to see ULSD in SIP
  - Could be contingency or MSM?
- **Measure 52: Small used oil burners (“pot” burners) (Vermont)**
  - City of Fairbanks heats garage with used oil, but not “small”
  - Seekins, other auto dealers burn used oil (test it first to comply with fed. hazmat limits on constituent properties).
  - Some residents do this inappropriately
  - Do we let people know its banned during an alert?
- **Measure 53: No sale of used oil (Vermont)**
  - Federal hazmat limits apply
  - FNSB burns used oil at landfill, heats buildings with it
  - What happens to used oil if not burned? Will people dump it?
- **R20: Transportation Control Measures (Vehicle Idling)**
  - Transportation/Mobile Sources = ~15% of PM$_{2.5}$
  - Contributes more in core area of city than in rural areas of nonattainment area
- **R29: Increase District Heating (Steam/hot water from downtown Aurora plant)**
  - Is it economically feasible?
  - Lowest cost space heating at this time. (What about after natural gas is more available?)
  - Will increasing district heating result in increase in coal burning and coal ash residue? Heavy metals in coal ash is a concern due to water percolation
  - Ask for discussion with Aurora Energy
- **EPA 3: Fuel Oil Boiler Upgrade**
  - Boiler changeout program discussed by Point Sources group
  - Introduction of natural gas will require changeout of existing boilers
  - Annual maintenance servicing of both wood stoves and boilers has gotten much more expensive in last few years
  - #1 burns cleaner, may help reduce maintenance costs (service every 2 years?)
- **EPA 4: Fuel Oil O&M Programs**
  - Education, public information or incentive
- **Stakeholder 6: Diesel awareness around monitors**
  - Clean up air around monitors first
- Could be strategy to buy more time to deal with AQ issue everywhere and teach us what works

- **Public 12: Use of State Royalty Gas**
  - Available from $4-6/MCF, if authorized
  - Citizens for Clean Air looking at
  - IGU is looking into natural gas

- **Public 13: ULSD production in FNSB**
  - Petro Star has no plans – not cost effective. Will waive confidentiality on data shared with DEC.
  - No known plans from other refiners
  - Would take 2 years to permit it

- **Public 14: Identify costs of ULSD**
  - Supply side costs, not only retail (is cost realistic?)
  - Ask Barry Pulliam and/or Joe Little: 2015 analysis for legislature (Angela Speight can get copy of study?)

- **Public 15: Expanded incentives for conversion to natural gas**
  - Natural gas won’t be available in time for SIP. Time is running short.

- **Public 16: Expanded incentives to offset ULSD transition**
  - How can we help people convert if they can’t afford to?