

CWU Biomass Cogeneration: Air Quality Considerations

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Air Quality Considerations

1. Applicability
2. Best Available Control Technology
3. Ambient Impacts
4. Public Process



Applicability

- Prevention of Significant Deterioration
 - Triggered by PTE \geq 250 tons per year (most likely CO)
- Title V Air Operating Permit
 - Triggered by PTE \geq 100 tons per year
 - Current PTE
 - $\text{NO}_x = 91$ tpy
 - CO = 60 tpy
 - VOC = 7 tpy
 - $\text{PM}_{10}/\text{PM}_{2.5} = 7$ tpy



BACT

- Cannot be defined until permit applied for
- Case-by-case
- Start with all bells & whistles
- May consider energy, environmental and/or economic impacts



Ambient Impacts

- Plant/stack location will impact modeling results
- 1-hr NO_x & 24-hour $\text{PM}_{2.5}$ standards may be challenging
- Ellensburg is “at risk” for $\text{PM}_{2.5}$ nonattainment



Public Process

- Special efforts underway to characterize, understand, reduce $PM_{2.5}$ by Kittitas Co. Air Quality Advisor Committee (led by KCPHD)
- May trigger public comment period and public hearing
- SEPA



Recommendations

- Engage the public early
- Quantify emissions
- Do a “top-down” BACT analysis
- Do “screening” modeling

