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# Dealing with Difficult Technical/Regulatory Issues

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# Best way to start dealing with technical issues

- Understand your situation completely
  - Determine <u>all</u> applicable regulatory requirements and available options
    - Regulation vs. guidance vs. precedent
- Identify critical issue(s) for:
  - Your project or facility operations
  - Regulatory agency
    - Prepare to communicate





# Find <u>the</u> specific technical issue(s)...

- Critical issue(s) identified is technical
  - Disagreement over applicable effluent limitations at an outfall
  - Air emission calculation methodologies and permit determination
  - Modeling predicts concentrations above the NAAQS
  - List goes on and on...



# Important Points to Remember

- Whose issue is it? project proposer or regulatory agency
  - Are you proposing something different than the "default"?
  - Is there past agency precedent / data?
- Most agency staff have been trained to fulfill the regulatory requirements in a technically correct and responsible manner, but ...



# Special aspects to any regulatory decision

 Even when the same statutes and rules apply, different agencies will have a different idea about what outcome is desired



- Circumstances change frequently
  - Rules, standards, policies, political realities
  - Project or operational changes, personnel



# Recent project example

- Manufacturing facility was modeled by EPA regional office staff due to a state regulation that requires attainment of NAAQS and as part of the 1-hour SO<sub>2</sub> designation process
  - Complex terrain
  - Continuous batch process
  - One primary stack



### Nearby Terrain





#### 3-D View of Plant and Nearby Area





# Critical Issue: AERMOD vs. CTDMPlus

- Both are 40 CFR Part 51 Appendix W
  - Approved and Appendix A "Recommended"
- AERMOD
  - Default model, but does not recognize hill geometry
- CTDMPlus
  - Elevated point sources
  - Terrain elevations above stack top
  - 3-D treatment of nearby terrain





### Initial EPA AERMOD Modeling



#### Legend









# Technical discussions/negotiations

- Non-default approach easy for regulators to say "no"
- When that happens, work through all requirements
  - Enhanced meteorological data (representative)
  - Hybrid modeling using both models
- Stick to the facts and regulations

  and play nice



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 After working through three rounds of comments starting with "no CTDMPlus, use AERMOD" -

"EPA concurs with the modeling methodology and the resulting estimated design value, which relies on a combination of the CTDMPLUS and AERMOD models."





#### **AERMOD/CTDMPlus Modeling**



### Summary

- Understand your circumstances and options completely
- Determine your critical issues and key issue(s) for the agency
- Provide sufficient information to allow agency to say "yes"
  - Be patient outside the box approvals can take time
- Communicate frequently and treat the regulators with respect



### Questions or need "outside the box"?

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