NAQB w/Phil

Mark: nonattainment areas need attainment plan. Exercise involves EI, base year, figure out strategies and reduce emissions, model to show that you will be below the standard. Used roll back and use d modeling to inform rollback. Industrial source emissions are to the west of Peterson school monitor. Looking at a proportional rollback. Get EPA to allow us to use a distance weighing mechanisms but did not agree without …….modeled industrial source impact at monitor. Based on Peterson school monitor. In addition to rollback at Peterson school, had to do an unmonitored analysis. Estimate concentrations at unmonitored area which was identified by ID box (supergrid) for each industrial area with 4 receptors at each corner. Collins, Columbia forest products, industrial oils and Jeldwen….each had a super grid and essentially came up with a value for what the concentration would be without a industrial source contribution and added to background to come up with 2014 value.

Could we repeat attainment modeling exercise by taking out industrial source emission (offsets) and add new source emissions that are utilizing the offsets and demonstrate NAQB if lower at multiple receptors? Who would do it? EPA doesn’t go into any detail on NAQB. If tied to attainment plan, NAQB must be tied to attainment plan.

PHIL: CA only requires offsets in same area but areas are big. (maybe for PM2.5?). Phil checked online. Don C pointed Phil to this information. How does CA address NAQB? They separate coastal and inland areas.

MARK: EPA defines AQ control regions in Oregon…do these match with our definitions?

Phil: OR always gets more details rather than more general. Ecology is very general on precursors whereas we have formulas.

Mark: Have these attainment plans been approved by EPA?

Mark: Backsliding is part of our SIP, make sure nothing is less stringent in our SIP. Something more stringent in our SIP to address a local issue and isn’t necessarily needed.

Phil: 1: Majority of receptors test can be met. 2. less than a SIL at all receptors. K Falls may be the only place that meets this test because of local topography and “co-located” sources. Check old modeling reports from Pat if anyone else was able to meet this test.

Phil will check with WA and ID.

10/04/12 NAQB continued discussion with Phil, Jeffrey, Gary, Mark and Karen

Offsets obtained result in a reduction in concentration at a majority of the modeled receptors and the emission increases from the proposed source or modification will result in less than a significant impact level increase at all modeled receptors

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|   Option 1A: Define NAQB as 1:1 offset ratio for all sources based on CA rules |
|   Option 1B: Define NAQB as greater than 1:1 offset ratio for all sources |
|  Option 2: 1A or 1B for non-federal majors and retain current version of NAQB for federal majors sources but eliminate “less than a significant impact level increase at all modeled receptors” |
| Other Options:* Average receptors instead of each and every

•Tie to populated areas (census?) vs. industrial areas• Use saturation survey to define the rest of the area around the monitor•Prevent source from contributing to a NEW violation•Use larger receptor grid•Based on topography |

Use attainment plan modeling to evaluate new source and offsets to show future projections would not be exceeded.

Demonstrate NAQB at monitor (below SIL) or offsets so impact at receptor are below SIL. Source will not aggravate problem at monitor. But will they cause exceedance at another receptor? Require competing source analysis that they will not cause exceedance anywhere else?

For Peterson School demonstrations, complete unmonitored area analysis. Used saturation survey to estimate concentrations elsewhere. Super impose industrial sources on top of saturation survey modeling. Will need to know background concentration.

Long process to determine background in other areas of NAA.

Model new source and determine significant impact area. Calculate what offsets are needed from the same stack to get impact < SIL at significant impact receptor.

03/20/13 more with Phil

Why hasn’t NAQB (below SIL at all receptors) been tested before? Did you say that less that single sources less than SIL so no further modeling? But NAQB still required, right?

Has been a problem from the very beginning but it hasn’t been applied. Exemption for Dry Creek Landfill written precisely because NAQB didn’t work for them. It hasn’t been applied except for Dry Creek because it hasn’t been attempted in any other maintenance/NAA besides Medford. Tried to use it in K Falls and it was finally successful but needed massive emission reduction credits from Collins.

Never been able to take advantage. Approved projects but not had impact on NAA or maintenance area. NAQB only applies to maintenance or NAA area. All project approved have been attainment or unclassified. In attainment area, that NAQB is perhaps defined as meeting NAAQS and increment. No need for offsets.

Step 1 reduction in concentration at majority of receptors =51%. Can meet. But below SIL at all receptors, cannot meet.

NAQB is higher bar than NAAQS and increment in 225-0050. For an attainment area, source less than SIL is not considered to be significant and can stop analysis. If inside maintenance area, less than SIL, then don’t go any further and not significant. No NAQB. EPA does not consider maintenance areas....these are attainment areas!

(c) For a source locating inside or causing a significant air quality impact on a designated maintenance area, the owner or operator must either provide offsets sufficient to reduce modeled impacts below the significant air quality impact level (OAR 340-200-0020) at all receptors within the designated maintenance area or obtain an allocation from an available growth allowance as allowed by an applicable maintenance plan. These offsets may come from within or outside the designated maintenance area. This requirement only applies to the emissions remaining after first deducting the offsets obtained in accordance with section (7) of this rule.

If already below SIL, then 0 offsets required. Can be directed to this section in 225 and offsets are zero and you still model but below SIL so you satisfy condition for NAQB. But normally you wouldn’t get there because in 224, it says something about new or modified sources whose impacts are below SER, then wouldn’t get to 224. Per MSF – NOT TRUE!

A source located in or impacting maintenance area, if modeled impacts less than SIL, then that is considered not to have impact on area and therefore NAQB is demonstrated and no offsets are required.

224-0070(2)(b)

(b)The owner or operator of any source subject to this rule that significantly impacts air quality in a designated nonattainment or maintenance area must meet the requirements of net air quality benefit in 340-225-0090.

With MSF:

NAA must get offsets.

Maintenance offsets unless alternatives.

Attainment areas < SIL (single source) then done. Or competing sources. NO offsets but can get negative emissions in competing source analysis if source gets offsets. (b)The owner or operator of any source subject to this rule that significantly impacts air quality in a designated nonattainment or maintenance area must meet the requirements of net air quality benefit in 340-225-0090.

Below SIL then not significant. If impacting NAA or maintenance areas, then need offsets.

NAQB has not been an issue because no projects in NAA or maintenance areas since 2001. Recent projects have been NEAR Klamath Falls maintenance area but showed impacts were not significant (bioenergy) and natural gas project for Iberdrola in Klamath Falls, not significant. Lakeview cogen.