

CASAC Update

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Regional Air Quality Meeting

October 2008

1970 1980 1990 2000 2010

Ozone

PM

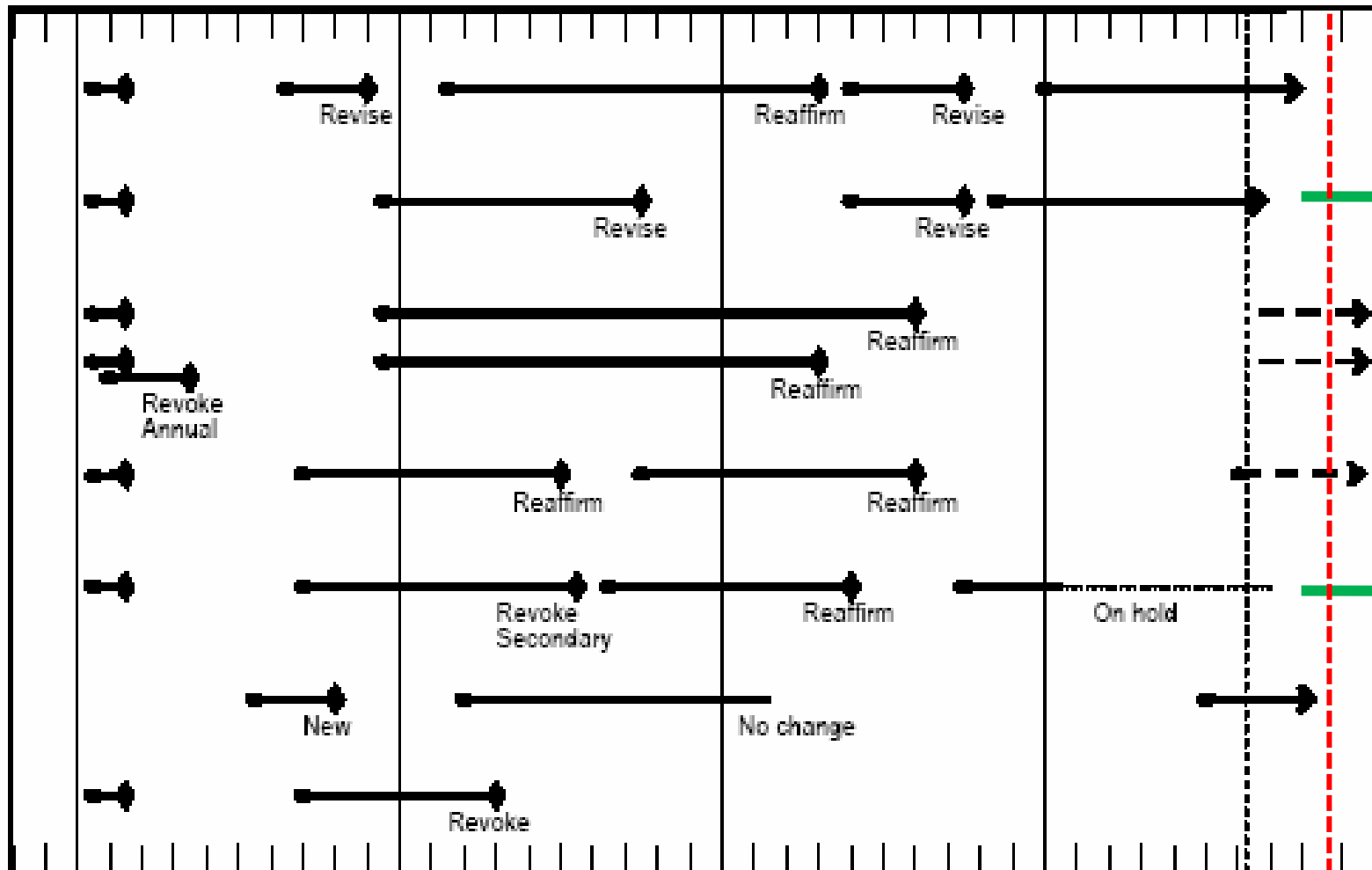
SO₂: Primary
Secondary

NO₂

CO

Pb

HC



◆ Notice of Final Decision

→ Court-ordered Deadline for Future Final Decision

- - - → Deadline litigation ongoing

Recent Activity-Pb

- Unsolicited response to Pb NPR on May 1; CASAC expressed deep concern about the proposal and the process
- Proposed upper bound of 0.3 ug/m³ is above both CASAC and EPA staff recommendations; also solicits comments on 0.5 ug
- Included an entirely new meta-analysis that had not been incorporated in staff paper or ANPR, nor reviewed by CASAC or others; this new analysis included parameter assumptions contrary to those previously recommended by CASAC and staff

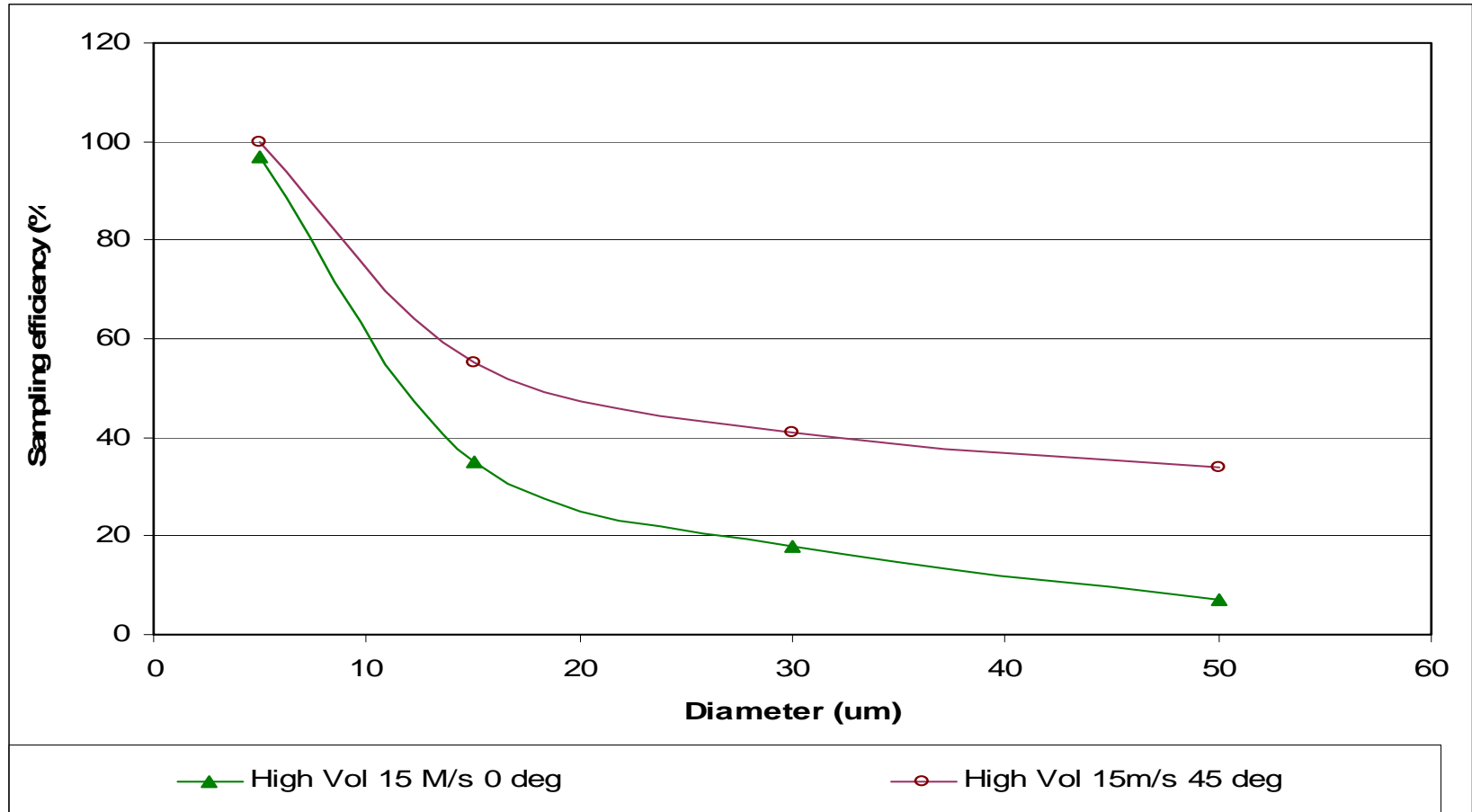
“Finally, the CASAC notes with disappointment that, to date, there has been no response from the Agency to our January 23, 2008 letter. In that letter, the CASAC complimented certain features of the new NAAQS process (e.g., the “kick-off” science workshop and the integrated science assessment). However, the CASAC also requested a modification of other aspects of the revised process (such as the absence of a meaningful policy assessment discussed above) that appear to be ever-shifting and that tend to conceal the Agency’s underlying scientific analyses from its own, statutorily-mandated scientific advisory body. “

***Final Rule Scheduled to be Announced Today, Oct 15
2008!!***

Recent Activity - Pb

- Ambient Monitoring Subcommittee met to discuss Pb FRM
- Difficult to select an FRM without knowing a) level and b) indicator!
- CASAC prefers PM10 over TSP because PM10 is more precise, has a better defined cutpoint, is not subject to wind dxn, can be measured at low volumes more like actual human breathing, and samplers can make sequential measurements
- BUT, that recommendation is predicated on significant reduction in level (from current 1.5 to no more than 0.2 ug/m³), because PM10 will sometimes capture less 'ultracoarse' Pb than TSP. The lower level builds in a safety factor.
- Since EPA asked for comment on much higher levels of Pb than CASAC recommended, the committee revised its advice and asked EPA to retain TSP if the level of the standard is set at 0.2 or higher

Plot of High Volume Sampler Efficiency vs. Wind Direction



Data from - Wedding, et. al., (1977)

Source: Cavender and Rice ppt (EPA)

Recent Activity – SO₂ Primary

- Focus of new Science Assessment and Risk/Exposure Assessment is on 5-min avgs and health effects at concn. to 0.2 ppm (current standards are met everywhere: ann. = 0.035 ppm, daily=0.140 ppm)
- Clinical data show health effects in asthmatics at short term, high concentrations
- EPA's task is to assess exposure (how many asthmatics might experience high concentrations in a year) and risk (how many would experience significant health effects from those exposures)
- EPA's focus was 0.4-0.6 ppm; CASAC recommends assessing exposures to 0.2; short term data (5-min) are very limited
- ANPR due Feb. 2009, NPR due July 2009, Final Rule March 2010

Recent Activity – NO₂ Primary

- 2nd draft Risk Assessment reviewed Sept. 9-10
- New health evidence supports a short-term standard (<24 hr), probably 98th/99th %ile form. Current standard is annual average (0.053 ppm)
- Focus is on near-roadway exposures and respiratory health effects of airway hyperresponsiveness, inflammation, lung function, increased emergency room visits and hospitalizations
- ANPR due December 2008, NPR due May 2009, Final Rule due Dec 2009

Recent Activity – NO_x/SO_x 2ary

- 2nd Draft Science Assessment and 1st Draft (partial) Risk/Exposure Assessment reviewed Oct 1-2, 2008
- Secondary standards are being reviewed jointly, but separately from each primary std. review, because welfare fx are similar for both species
- Assessment currently focuses on acidification (e.g., in Adirondacks and Shenandoah Mtns) and nutrient enrichment (e.g., coastal ecosystems)
- CASAC suggests
 - broader multipollutant view that includes total reactive nitrogen, specifically ammonia
 - More direct links between emissions, concentration, deposition, effects
- EPA restricted by CAA to set concentration standard, rather than deposition
- ANPR due August 2009, NPR due Feb 2010, Final Rule due Oct. 2010