Bullet List Summaries of NAHB Comments on Option 2

The NAHB comments to the proposed ELG contain much discussion about the practicality of Option 2, and how Option 2 differs from most current applications of so called Advanced Treatment Systems (ATS) used as the technology basis for the proposed Option 2 turbidity limit of 13 NTU. This section is broken down into two subparts, one discussing some of the impractical problems with Option 2 as written, which are a significant part of the reasons for the dramatically higher costs, and the second discussing technical issues in the generation of the 13 NTU limit.

A. Some Practical Problems with Option 2 and ATS Systems

- Option 2 applies to sites greater than 30 acres regardless of the amount of acres disturbed. This has been almost universally opposed by nearly all commenters as unworkable.

- Most sites in WA, OR, and CA where ATS is currently used are not required to meet a numeric limit, or the limit is set high enough to allow for more cost effective operations.

- The EPA Option 2 requires that every discharge from the site meet the 13 NTU limit. Where ATS systems are assigned limits, it is most often only applicable to the ATS discharge alone, and does not include minor discharges. Historically, ATSs have been located sparingly at major discharge points where they are most effective, or where the discharge goes to a sensitive watershed, without having to reconfigure the drainage patterns of the entire site, as would be required by Option 2.

- Most current ATS systems only operate during wet seasons. This would not be possible under Option 2 without incurring extreme risk for violations.

- Most current ATS systems only operate at construction sites during the mass grading phase, and are then dismantled long before the final Notice of Termination (NOT). EPA has not investigated if the ATS equipment could feasibly operate until the final NOT, since installed roads and storm drains can radically alter drainage patterns, and has not included the years of additional operation required in their cost estimates.

- The toxicity studies of the polymers used in ATS systems cited in the proposal are flawed, in that they assess the polymer toxicity only in clear test water, not in streams with natural turbidity present. In their comments, many State agencies have cited instances where excess polymer dosage has caused coagulation of natural stream sediment that adversely affects fish, possibly by clogging their gills.

- EPA does not have information on ATS effectiveness under full winter freezing conditions.

B. Technical Issues with the Development of the 13 NTU Turbidity Limit Demonstrate a Sharp Departure from the Requirements of Previous ELG Proposals

- EPA does not have schematics or other evidence of the treatment configuration used at most of the sites where the data was taken to calculate the NTU limit.
- There was no EPA or EPA contractor site visit to any of the sites, and no EPA or EPA contractor verification of the sample collection and analysis procedures.
- EPA does not have direct evidence of where samples were taken, or whether the 13 NTU limit was actually met at the various points of discharge from the property, and not just for the discharge from the ATS.
- EPA does not have accurate documentation of sampling frequency or times measurements were taken.
- There is a lack of QA/QC documentation or evidence of proper calibration of the turbidity measurement instruments. Uncalibrated, these instruments can potentially read incorrect numeric values, and must be calibrated against a turbidity standard daily.
- There is a lack of nationwide representativeness, since all sites were from the Washington, Oregon or California coast.
- There was no independent verification of the ATS vendor-supplied turbidity data, which is most of the data used by EPA to calculate the NTU limits.
- The EPA did not have descriptions of the ATS Standard Operating Procedures (SOPs) for the sites, especially as to whether recycling of the wastewater back to treatment was required to consistently meet 13 NTU or some other NTU value. Absence of data during periods of recycling would radically affect both the long term average and the variability factor for a "once-through" treatment of the submitted data from the affected sites. EPA stated in the TDD that they did not regard recycling as being necessary part of the technology required to meet the proposed 13 NTU limit.
- EPA has not addressed whether all equipment required to meet 13 NTU can be feasibly installed at every site (i.e. linear projects). In the past, many ATS vendors have used additional technologies and/or treatment modules to meet various turbidity levels based on conditions present at a site, but such modules are not always practical or cost effective for all types of soils or projects.