

Mirant Community Monitoring Group Meeting
December 2, 2004
Comments
Elizabeth Chimento, member

Re: Mirant's Proposed Protocols for Downwash Modeling Study and the City's
Comments on Mirant's Protocols

The City's Comments identify major and multiple deficiencies in Mirant's protocols for the downwash study at the Potomac River Generating Station.

These problems, summarized in seven primary inadequacies (Introduction, City's Comments), take on greater significance in the detailed analysis of each issue, resulting in :

- No provision for PM2.5 modeling, especially Primary PM2.5 but also Secondary PM2.5.
- No provision for modeling less than PM10 particles.
- Emission estimates under-predicted for SO₂, PM10, PM2.5 and mercury. Mercury emission estimates arbitrarily spread out evenly among 5 stacks, which does not account for each stack's actual output.
- No accounting for other toxic pollutants, including trace metals, emitted by coal burning and their corresponding health effects using EPA sanctioned thresholds (IRIS) for chronic inhalation exposure and cancer risk.
- Under-estimation of stack diameter and over-estimation of stack velocity which result in "greater momentum and plume dispersion than actually occurs."
- Arbitrary placement of receptors which do not account for criteria pollutants' greatest impacts.
- Omission of Marina Towers, already identified as downwash site in Sullivan Environmental's Preliminary Study.
- Omission of downwash effects from plant silos, although highly possible sites for wake effects.
- Improper placement of flagpole receptors at appropriate heights to determine downwash as well as omission of Port Royal and Alexandria House high rise residential buildings as potential downwash sites.

- Stack emission receptors for fly ash impacts arbitrarily placed at one kilometer's distance from plant whereas Mirant's consultant identifies the significant impact area is 2 to 3 kilometers' distance from plant.
- Site placement of National Airport as center point for the downwash study instead of the plant's actual urban land site, which includes high buildings, results in omitting wake effects by placing the center in a water trajectory (Potomac River) where no high buildings or obstacles exist to create possible wakes and eddies.

Due to the identification of these multiple major deficiencies in Mirant's protocols, I have little confidence in Mirant's ability to provide an accurate, greatly revised and scientifically rigorous set of protocols.

Elizabeth Chimento