US EPA ARCHIVE DOCUMENT

SITE: TVA Kingston
BREAK: 2.2
OTHER:

AIR

Initially, the ash was in a mud-like state and stayed that way because of rainfall through most of January 2009. Predictably, that worked in favor of air quality and kept particulate levels well below the particulate National Ambient Air Quality Standards (NAAQS).

Toward the very end of January, extremely cold and dry polar air coupled with high wind speeds caused the ash to begin to dry and hampered watering of the roads because of icing issues. Attempts to straw and seed the area for a vegetative covering failed because of seed germination issues.

A new strategy to cover the area with a cellulosic binder erosion control material called Flex-Terra™ began on January 31, 2009, and thus far, the dust suppression effectiveness of the material is working. There are approximately 300 acres of surface area comprising the ash slide and as of March 23, 2009, enough material to cover 167 acres has been applied to the site. (Some of the acreage was retreated due to damage from traffic.)

TVA is applying this cover at the manufacturer recommended rate, and it should be effective at dust suppression for approximately 12 months. TDEC will monitor TVA's progress in covering the rest of the ash with this material and the continued dust suppressing effectiveness of the applied material over time.

Water trucks continually patrol the site haul roads and paved roads to minimize the dust from traffic. Additionally, street vacuum trucks clean paved roads and portable road sign style radar units help people to remember the 15 mph speed limit on the paved plant roads.

Track out of ash and ash bearing materials caked on the wheels and undercarriage of vehicles leaving the site onto public roadways are being addressed by the installation of three wheel/undercarriage wash racks at the site. Security personnel at the site have been instructed to turn any vehicle attempting to leave the site without undergoing decontamination back to the cleaning stations.

Air monitors ring the site to keep watch over clean-up related air exposure impacts to the public and the efficacy of dust suppression measures at the site. Both TDEC and TVA, with both TDEC and EPA auditing the TVA monitoring, operate monitors in the area.

Total Suspended Particulate monitoring is conducted to gauge the quantity of all sizes of particles that are suspended in the ambient air. In addition, the filters from these samplers are analyzed for metals found in the ash. TDEC is working with the TDH, EPA and Centers for Disease Control's Agency for Toxic Substances and Disease Registry Program to interpret the metals data in terms of public health protection.

Fractional particulate monitoring for both PM-10 (10 microns and down particles) and $PM_{2.5}$ (2.5 microns and down particles) is also conducted at the site and compared to the NAAQS for these

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materials that have been established by EPA.

TDEC is of the current belief that the air-monitoring network is credible and that the dust suppression procedures being used is effective. To date, no exceedances of the NAAQS for PM-10 and $PM_{2.5}$ have been measured in the vicinity of the coal ash spill in Kingston by either TDEC or TVA operated monitors. Additionally, the metals data available thus far has been reviewed by state and federal staff knowledgeable in environmental toxicology to ensure no adverse health effects develop from possible exposures. TDEC will not hesitate to modify our monitoring or dust suppression requirements as needed to address the new information going forward.

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