

3.0 COMPARISON OF SCREENING LEVELS TO SITE-RELATED DATA

After the SLs for air, water, and soil were determined, DEP compared these SLs to the site-related data that has been collected to date. These comparisons are summarized below. The work of the CATT was only one facet of an investigation that continues beyond the issuance of this report. The GIST is expected to issue a report of the groundwater and surface water data in early 2003. The air modeling effort continues and is currently focusing on determining the results of the air emissions reduction efforts by DuPont required in the consent order as a 50% reduction in overall emissions (both air and water) by the end of 2003. Upgrades were completed in June 2002 which included the installation of a new scrubber and increased height of the primary C8 emissions stack.

Water

To date, of the 188 samples collected from private wells, cisterns, and springs, 50 were used for drinking water and none exceeded the 150 ppb health protective water SL for C8. Also to date, nine public water supply facilities in West Virginia have been analyzed for C8, including Belleville Locks and Dam, Blennerhassett Island, General Electric, Lubeck Public Service District (PSD), Mason County PSD, Parkersburg PSD, Racine Locks and Dam, New Haven Water Department, and Ravenswood. None of the drinking water from these facilities contained concentrations of C8 that exceeded the 150 ppb water SL. In fact, the concentrations of C8 in public water supplies were all below 2 ppb, below 15 ppb in private non-drinking water, and below 3 ppb in private drinking water wells in West Virginia. Samples were collected from Ohio public and private water supplies. Although C8 levels in some Ohio private water supplies were higher than those detected in West Virginia, none of these samples contained C8 concentrations above the water SL. These data have been provided to Ohio EPA and DEP will continue to share information with throughout the remainder of this investigation. The DEP notes that the water SL is higher than DuPont's internal community exposure guidelines for drinking water of 1 or 3 ppb; however, these guidelines were developed in the early 1990s and based solely on a two-week inhalation study from 1986. Since then significant additional toxicological data have been collected and the CATT water SL is based on a comprehensive examination of all available information. Sampling of the Ohio River has begun; preliminary analytical results are expected from the laboratory in September 2002. To date, no analysis has been performed to measure C8 in soils in West Virginia on private property; therefore, no comparison can be made to the soil SL.

Air

Mathematical computer models that incorporate weather conditions, chemical characteristics, and facility measurements were utilized by DEP to simulate the ambient air concentrations of C8. Based on actual emissions data from the DuPont WW facility for the year 2000, the DEP modeling efforts predicted a maximum C8 concentration in air of approximately $2.7 \mu\text{g}/\text{m}^3$ at the facility fence line along the Ohio River. The maximum modeled C8 air concentration in the West Virginia residential area adjacent to the facility was approximately $0.2 \mu\text{g}/\text{m}^3$ annual average. Predicted C8 air concentrations across the Ohio River from the WW facility in Ohio residential areas were greater than those predicted in residential areas in West Virginia. These data have been provided to Ohio EPA and DEP will continue to share information with Ohio EPA throughout the remainder of this investigation. Results of similar subsequent air modeling efforts conducted by DuPont are consistent with those of the DEP. Air modeling information can be obtained from the DEP Division of Air Quality.

The DEP's Divisions of Water Resources and Air Quality are currently reviewing all relevant air and water data to determine DuPont's compliance with the November 2001 consent order between DEP and DuPont.