Agency believes that the petitioned waste is unlikely to be the source of the detected groundwater contamination.

The Agency also considered the significance of hexachlorobenzene, which was detected in the groundwater at one downgradient well during one round of sampling. This hexachlorobenzene concentration was reported as an estimated value (rather than an actual detected value) of 0.012 mg/l, based on a detection limit of 0.050 mg/l. However, hexachlorobenzene has not been reported as detected in any wells monitoring the HWM–2 landfill during any other round of analysis throughout the monitoring history of the area. Furthermore, this constituent was not detected in the petitioned waste, based on total constituent analyses of eight samples and TCLP leachate analyses of nine samples. The Agency, therefore, believes that hexachlorobenzene is not present at levels of concern for delisting.

The Agency evaluated BSC's demonstration that benzene detected in the downgradient wells actually originated from a source other than the petitioned waste. BSC's demonstration included an evaluation of each waste type placed in the HWM–2 landfill. BSC presented information to show that, based on the nature of the processes from which the components of the petitioned waste were generated (*i.e.*, ammonia still lime sludge, blast furnace thickener sludge, basic oxygen furnace thickener sludge, sinter plant sludge, cold rolling mill wastewater treatment sludge, and dredging spoils from Smokes Creek), benzene is not expected to be present in the petitioned waste at levels of concern. Specifically, BSC provided information concerning benzene concentrations in each of the individual waste components placed in the landfill. This information included: (1) Descriptions of the processes generating the blast furnace sludge, basic oxygen furnace sludge, and ammonia still lime sludge, (2) results from the analysis of extracts of samples of each of the individual waste components, and (3) results from the analysis of raw wastewaters from which these waste components originated. (A summary of the analytical results quantifying the concentrations of benzene in the individual waste components of the landfill is contained in the docket).

The information provided by BSC supports its claim that benzene is not expected to be present in the petitioned waste at levels of concern. In addition, the Agency notes that benzene has not been detected in total constituent analyses of 20 samples of the petitioned waste, nor in leaching analyses of nine samples of the petitioned waste. Finally, three solid waste management units (designated as acid tar pits), which have received a large quantity of waste materials known to contain high concentrations of benzene (up to 29,000 mg/kg), are located approximately 1,600 feet upgradient of the downgradient wells monitoring the landfill containing the petitioned waste. In addition to a detailed characterization study of these tar pits, BSC provided calculations of the average groundwater velocity to demonstrate that contaminants released from these tar pits could have reached monitoring wells in the HWM–2 landfill area. For these reasons, the Agency believes that BSC's assertion regarding a potential upgradient source of benzene, other than the petitioned waste, is valid.

As mentioned earlier in this notice, the Agency also received more recent groundwater monitoring data from State and EPA Regional authorities. Such additional data were received in late 1993 and 1994, after the Agency had performed its statistical analyses of the data collected from March 1985 through July 1992 (as submitted by BSC in its petition and supplemental information). The Agency concluded that it is not necessary to perform further statistical analyses to incorporate the more recent data. The earlier data (March 1985 to July 1992) were sufficient for the Agency to conduct statistical analyses, and to conclude that the contaminants of concern were not released from the landfill containing the petitioned waste (*i.e.*, the existing groundwater contamination at the site is not attributable to the petitioned waste). In addition, based on the Agency's preliminary review of the more recent data, it appears that those data would not lead to any significant change in estimated constituent concentrations that would affect the earlier evaluation. The Agency, therefore, believes there is no need to devote additional Agency time and resources, which are scarce, to conducting further statistical analyses to include the additional groundwater monitoring data. The Agency has placed the groundwater monitoring data received from State and EPA Regional authorities in the RCRA public docket for today's notice for public comment.

During its evaluation of BSC's petition, the Agency also considered the potential impact of the petitioned waste via nongroundwater routes. With regard to airborne dispersal of waste, the Agency evaluated the potential hazards resulting from airborne exposure to waste contaminants from the petitioned waste using an air dispersion model for releases from a landfill. The results of this evaluation indicated that there is no substantial present or potential hazard to human health from airborne exposure to constituents from BSC's petitioned waste. (A description of the Agency's assessment of the potential impact of airborne dispersal of BSC's waste is presented in the RCRA public docket for today's final rule.)

The Agency also considered the potential impact of the petitioned waste via a surface water route. The Agency believes that contaminant structures at municipal solid waste landfills can effectively control surface water runoff, as the recently promulgated Subtitle D regulations (see 56 FR 50978, October 9, 1991) prohibit pollutant discharges into surface waters. Furthermore, if the waste were to remain on-site, the HWM–2 landfill containing the petitioned waste is currently surrounded by a continuous berm that precludes runoff from the unit. Therefore, any significant future releases of contaminants from the petitioned waste at its current location via a surface water route are highly unlikely. If such surface water releases should occur, any releases and the HWM–2 unit are subject to the corrective action provisions of RCRA. In fact, if BSC's waste in the HWM–2 unit were delisted, the unit would remain a solid waste management unit under RCRA, and would be closed in accordance with an approved New York State plan.

While some contamination of surface water is possible through runoff from a waste disposal area (*i.e.*, storm water), the Agency believes that the dissolved concentrations of any hazardous constituents in the runoff will tend to be lower than the extraction procedure test results reported in today's notice because of the aggressive acidic medium used for extraction in the TCLP. The Agency also believes that, in general, leachate derived from the waste will not directly enter a surface water body without first traveling through the saturated subsurface where dilution of hazardous constituents may occur.

In addition, any transported contaminants would be further diluted in the receiving water body. Significant releases to surface water due to erosion of undissolved particulates in runoff are also unlikely, due to the controls noted above. Nevertheless, the Agency evaluated the potential hazards resulting from releases from a landfill to a nearby stream, as well as possible releases from the current landfill located on-site and adjacent to Lake Erie. The results of these evaluations indicate that BSC's waste would not present a threat to human health or the environment.