unlike regulations imposing tighter control requirements, would be to *reduce* the overall costs and economic impact of the RCRA regulations. Therefore, this rule is unlikely to have an adverse annual effect on the economy of $100 million or more. The extent to which EAF steelmakers may change from one waste management alternative such as recycling to other methods after today's delisting is speculative in any event.

In addition, the Agency did not fail to consider the other principles of regulatory development stipulated in the Executive Order. See the Response to Comments document for a further discussion of these issues.

Waste Management

Comment: One commenter (HRD) noted that CSI may develop products from CSEAFD, that the delisted waste may be delivered to a facility that beneficially uses or reuses the material and that the waste may be disposed of in any acceptable manner under Federal or State law. As such, this commenter believed that the assumption of disposal in a Subtitle D landfill is not the reasonable worst-case disposal scenario for CSI's petitioned waste. In support of its argument, the commenter submitted an excerpt of a paper presented by a CSI employee at a trade meeting held in February 1995. This excerpt reflects two alternative concepts that are being developed'' for recycling EAFD, including use of stabilized EAFD as ingredients in the production of Portland cement.

Response: CSI indicated in its petition that the CSEAFD will be disposed of at non-hazardous waste landfills. EPA does not have any specific information that CSI has developed its CSEAFD into any viable product that would allow for use or reuse of this material instead of disposal. Therefore, it is unclear if, when, or how potential CSEAFD-derived products may be used in the future. EPA's assumption that CSI's petitioned waste, if delisted, will be disposed of in a Subtitile D landfill is conservative and represents a reasonable worst-case management scenario for this delisting for the decision that CSI's CSEAFD may safely be disposed of as a non-hazardous ''waste''.

Nevertheless, as the commenter pointed out and as the petition also indicates, CSI is working on different ways to reuse the CSEAFD as a feedstock or product (see Page 17 of CSI's petition). It is unclear if the effectiveness of CSI's stabilization process could be somewhat compromised as a result of certain product-use applications; or if the levels of total constituents in the CSEAFD could become a concern due to certain exposure scenarios not considered in the delisting evaluation. Because EPA was not provided with any detailed information and data from CSI on how its waste might be used in products, EPA believes it is appropriate to limit the scope of today's final rule to exclude CSI's CSEAFD only where it is disposed of in Subtitle D landfills. EPA does not reach a decision today on whether CSI's CSEAFD that is not disposed of in Subtitile D landfills qualifies for exclusion from the list of hazardous wastes. In the future, if CSI has successfully developed uses for CSEAFD and seeks an exclusion for such uses, it must submit pertinent information in a petition to EPA and await further decision by the Agency on that matter.

Potential Deterioration of CSI's Stabilized K061

Comment: One commenter (HRD) stated that the petition relied on the TCLP and MEP chemical testing procedures to determine the efficacy of CSI's stabilization process, but largely failed to address the long-term physical durability (or structural integrity) of the stabilized EAFD. The commenter believed that the stabilized EAFD will deteriorate over time once disposed of in landfills or elsewhere, which could result in airborne or waterborne exposure which was not evaluated. The commenter presented a list of applicable physical test methods, and suggested that at a minimum, freeze-thaw and wet-dry durability tests be performed, and that EPA should apply ''deterioration models.''

Response: This rulemaking adequately addresses the potential deterioration of CSI's CSEAFD and the resulting leachability of the material. The MEP was developed to predict the long-term leachability of stabilized wastes, consisting of ten sequential extractions that simulate approximately 1,000 years of acid rainfall. This method requires that the sample of stabilized material be first crushed and ground so that the sample material can pass through a 9.5-mm sieve (as part of the TCLP extraction incorporated in the MEP). The use of particles less than 9.5 mm is comparable to a worst-case assumption of degradation of the stabilized material. EPA also conservatively assumed that the total constituents in the waste would be readily available for release into air (ignoring that they are contained in the solidified waste matrix). Therefore, this evaluation also addressed the potential deterioration and airborne transmission of the waste.

Use of EPA's Composite Model for Landfills (EPACML)

Comment: One commenter (HRD) claimed that the EPACML model was not adequate for evaluating CSI's petitioned waste for several reasons. First, more accurate models, such as MINTEQ, must be used to quantify the migration and mobility of metals from land disposal units. Second, the Monte Carlo simulation mode implemented in the model is inappropriate for multiple site delistings because it does not account for site-specific variability. The commenter felt that only numerical models can account for such variability. Third, the model does not check for unrealistic combinations of input parameters, thereby resulting in inaccurate dilution and attenuation factors (DAFs). The commenter felt that the combination of input parameters should have been made public to allow for review and comment. Lastly, the commenter stated that the Agency did not clearly identify and justify the specific options used in the EPACML model for the delisting evaluation.

Response: The Agency disagrees with the commenter's contention that the EPACML model is inadequate for evaluating CSI's petitioned waste. First, the EPACML fate and transport model consists of an unsaturated zone module and a saturated zone module, both of which were reviewed and endorsed by EPA's Science Advisory Board for use for regulatory purposes. See 56 FR 32993 (July 18, 1991) and the EPACML Background Document [2] for a complete discussion of the EPACML model, assumptions and input parameters, and their use in delisting decision-making. EPA believes that the EPACML reasonably estimates the subsurface fate and transport of metals from land disposal units.

For prior cases, the MINTEQ model has not been found appropriate for use for delisting evaluations. To use it would require a large amount of additional information regarding the speciation of the metals present in the waste and the disposal site. EPA has discussed its finding that the EPACML model is adequate and conservative for delistings. Indeed, incorporation of results of MINTEQ in the EPACML model would only be *less* conservative if anything—*i.e.*, it would likely serve only to increase the output DAFs

[2] ''Background Document for EPA's Composite Model for Landfills (EPACML)'', available in the RCRA public docket for the November 2, 1993 proposed rule.