

listed gases, liquids and solids that become airborne.

EPA also notes that it does not use only dispersion potential or only toxicity to determine the TPQ. Instead, the method that EPA chose to establish TPQs for substances on the EHS list uses a combination of the toxicity of the chemical and the potential for these compounds to disperse beyond the facility boundary. Further, EPA did not assign TPQs based on any particular accident scenario or any specific handling situation. Instead, EPA chose to rank the chemicals against each other to get a relative idea of the potential accidental release significance or hazard associated with that chemical; a chemical with a "low" rank is more hazardous than one with a "high" rank ("hazard" being a combination of toxicity and dispersion potential). EPA chose not to rank only by toxicity because a highly toxic chemical such as IPDI (a non-volatile substance) would be assigned a very low TPQ while a slightly less toxic but volatile substance would be assigned a greater TPQ.

Hüls also argues that because IPDI's toxicity was determined using an aerosol form of the chemical, the dispersion factor portion of the TPQ should consider the aerosol form rather than liquid volatilization based on boiling point. The Agency disagrees with this comment. Substances were added to the EHS list if dermal, oral, or inhalation toxicity test results meet certain toxicity criteria. While it is likely that toxic gases are listed because of inhalation toxicity, liquids and solids could be listed not only because of inhalation toxicity but also dermal or oral toxicity. In an accidental release scenario, hazardous chemicals could be dispersed in many ways generating human exposure, potentially via all three pathways (e.g. via inhalation, oral or dermal exposure). Consequently, for purposes of determining the TPQ, the Agency chose to focus on the substance's physical state to determine the likely route of exposure that might result from an accidental release rather than the state of the substance used for toxicity testing. In other words, gases and liquids would become airborne due to volatilization while solids become airborne due to the force of an event such as an explosion. Certainly, liquids could become airborne as a result of an explosion generating an exposure not only to vapor but to aerosols that would be generated by the force of that explosion. If the Agency had used this approach to determine dispersability, all liquid substances would essentially have the same dispersion potential and would be ranked by their toxicity. In

this case, the TPQ for IPDI would end up being very low due to its high acute toxicity level in comparison to other liquids. EPA notes that Hüls' comment does not suggest a way to determine a relative ranking using an aerosol form, but simply argues that there is no basis for a TPQ of anything less than the maximum of 10,000 pounds. In fact, there is no basis for a TPQ of 10,000 pounds while there is ample toxicity data to suggest a much lower TPQ.

EPA acknowledges that releases of IPDI, and any other chemical on the EHS list, will not always result in an off-site consequence. However, since the requirement under EPCRA section 302 is for facilities to be included in the local preparedness efforts, the level of effort necessary for the facility to comply with section 302 is up to local planners. It is not possible for EPA to determine how all of the chemicals on the EHS list will behave during all potential processing and accidental release scenarios (including the chemical being involved in a building fire or explosion). EPA agrees that test data may be obtained by exposing the chemical to extreme conditions, however, these results would demonstrate that IPDI can be toxic under certain circumstances at relatively low concentration levels. TPQs including that for IPDI, are set based on toxicity and ability to disperse, relative to the other chemicals on the EHS list. While EPA takes toxicity and the chemical's ability to be dispersed into account in determining the TPQ, EPA believes the actual threat of off-site consequences posed by the actual processing conditions at the facility is best determined at the local level. If it is extremely unlikely that chemicals at a specific facility could cause off-site impacts, the local community may request little effort from the facility. Site specific factors (including whether the chemical is processed under high pressures and temperatures) can be discussed at this level.

The petitioner has also argued that since IPDI is manufactured and processed in closed vessels which are not under pressure, there is virtually no likelihood that it would disperse beyond the site of release. EPA disagrees. Even if Hüls' America does manufacture or process in closed vessels which are not under pressure, there may be some end users of this chemical that may use it for other manufacturing processes which may be at high pressure or temperature or the closed vessels could be exposed to fire. EPA is not saying that the TPQ that is now being set for IPDI (500 pounds) or any quantity for that matter, will definitely

travel off-site and cause major consequences. As EPA stated in the April 1987 final rule and the technical support documents supporting that rule, TPQs are for reporting purposes only, in other words, to provide information to local planning committees to focus their emergency planning and response efforts.

It is important to note that the Agency considered other methods for the development of the threshold planning quantities. After considerable analysis and review of public comments on the proposed rule, the Agency chose to develop the TPQs using a relative ranking method that considers the toxicity and the chemical's ability to become airborne. The other methods had more limitations than this approach. The first method considered involved predicting a specific quantity for each chemical that, if accidentally released, would result in significant acute health effects at a fixed distance from the release site. However, this approach is affected greatly by site-specific factors, such as the potential release scenario, weather and dispersion conditions, and processing conditions. Therefore, the Agency decided not to adopt this approach. Another method that the Agency considered was to assign categories of threshold planning quantities to groups of chemicals ranked by their toxicity. As noted above, those chemicals that are highly toxic (such as IPDI) and relatively non-volatile could be assigned a very low TPQ while a slightly less toxic but volatile substance would be assigned a greater TPQ. Since this does not seem appropriate from an emergency planning and preparedness perspective, the Agency rejected this approach. One last method considered was to assign a default quantity of 2 pounds for each EHS. If the Agency did not take any action to assign a TPQ for an EHS, the statutory threshold of 2 pounds would have been effective. Of these four methods, the Agency believes that the relative ranking method using the toxicity of the chemical, its molecular weight and boiling point to rank and assign a threshold planning quantity, was the most appropriate. For a more detailed explanation of each of these methods, see the November 17, 1986 interim final rule, the April 22, 1987 final rule, and the technical support documents.

V. Statutory and Executive Order Reviews

A. Executive Order 12866: Regulatory Planning and Review

Under Executive Order 12866 (58 FR 51735, October 4, 1993), the Agency