

produced prior to January 1, 2003 are not or will not be available in sufficient quantities and the HCFC-141b alternatives have not yet been developed to meet specific technical constraints within a particular application (e.g., spray foam for roofing applications).

The definition of "formulator" will also cover manufacturers that blend and package pressurized aerosol solvents. Although HCFC-141b is illegal in most non-aerosol solvent applications, it is an acceptable substitute as an aerosol solvent in certain cleaning applications and as a mold release agent. One commenter expressed concern with the timing of the HCFC-141b phaseout and the ability of aerosol solvent packaging companies to transition. EPA believes that sufficient alternatives are available for these applications in general and that it is unlikely that a petitioner would be able to demonstrate that they meet the criteria established under § 82.18 for additional HCFC-141b production/import beyond January 1, 2003. However, EPA believes it is appropriate to keep the petition process open to users of HCFC-141b as an aerosol solvent so that the Agency can address any need that may arise in the aerosol solvent end use. Furthermore, given the definition of formulator, EPA recognizes there might be other niche applications not specifically covered by SNAP that could legitimately petition and qualify for the HCFC-141b exemption. Thus, the petition process is open to other formulators of products containing HCFC-141b, enabling EPA to evaluate and address the various needs across multiple sectors in the most effective manner.

#### 4. Petition Process To Include All HCFC-141b Formulators

EPA believes it is appropriate to open the petition process for all formulators of HCFC-141b. This will provide all HCFC-141b users an equal opportunity to demonstrate their need for an "HCFC-141b exemption allowance." At this time and based on the information the commenters provided, the Agency believes that entities involved in space vehicle endeavors, U.S. military departments that use HCFC-141b for defense-related applications, and formulators within the spray polyurethane foam sector are likely to have the clearest need for "HCFC-141b exemption allowances."

In response to the HCFC allowance allocation proposal published on July 20, 2001 (66 FR 38081), EPA received requests for an extension to the HCFC-141b phaseout for the spray and pour polyurethane foam sector. EPA received

seven comments on the continued need for HCFC-141b in this sector past the production and import ban effective January 1, 2003. Reasons given for such an extension were: (1) Lack of commercially viable alternatives; (2) minimal environmental impact; (3) the same consideration as the space vehicle/defense entities that requested an exemption; (4) availability of production and consumption allowances under the cap; (5) inability of small businesses to stockpile; and (6) the results of the Caleb Management Services report (discussed below).

EPA also received comments from spray and pour foam manufacturers as part of a separate action under the Agency's Significant New Alternatives Policy (SNAP) program (65 FR 42653). In that action, EPA proposed a variety of restrictions on the use of HCFCs in foam end-uses.

A final rule was published on July 22, 2002, under the SNAP program (67 FR 47703). In response to comments on the proposal, the Agency gathered additional information on certain sectors. The Agency published a Notice of Data Availability (NODA) on May 23, 2001, making the new information pertaining to the foam industry available for public comment (66 FR 28408). The NODA included a review of the challenges facing the polyurethane spray foam industry and other systems house based applications (Air Docket A-2000-18, IV-D-78). This review was conducted by an EPA consultant who was hired to assess HCFC foam sector usage in the U.S. and determine the technical viability of alternatives in those applications (Caleb Management Service report). The Caleb report identified some technical hurdles faced by some current HCFC-141b users in spray and pour foam applications.

As with other insulation, spray foam products must meet product-specific standards which in turn are cross-referenced into the various building codes operated across the country. Technical considerations for final products in the spray and pour foam sectors include thermal performance, durability, density, cell structure (open vs. closed), finish, surface adhesion, and dimensional stability of the foam along with its ability to meet fire codes. Technical challenges that are unique to this sector are a function of the ambient conditions under which spray (and sometimes pour) foam are applied. These ambient conditions result in the potential need for special equipment and a wide array of formulations to meet different ambient conditions and the variety of end-use applications. Extensive field trials are also needed to

ensure that foam can be applied properly and that it will maintain its structure and thermal insulation value over time. Re-formulating and testing is typically done by each systems house. Systems houses are relied upon for much of the technical expertise and support provided to on-site contractors and others in the sector.

There are approximately 15-20 U.S. systems houses that formulate spray foam systems for roofing contractors and other customers that number in the thousands. Several systems house companies are large businesses, but many are small businesses. Although EPA believes that alternatives to HCFC-141b are currently or potentially available for spray foam applications, some smaller systems houses may need more time to develop and fully test these next-generation spray foam alternatives, especially for roofing applications where durability over multiple seasons has to be evaluated. Therefore, by opening the petition process up to formulators of HCFC-141b, the Agency is providing the smaller systems houses with flexibility so that diligent efforts can be taken, where needed, to test the next generation products, meet building codes and fire tests, and to have commercially available products. However, the Agency is committed to facilitating the transition away from ozone-depleting compounds as quickly as possible. Timing is discussed in more detail below.

Pour foam systems are also developed by systems houses. Some pour foam applications have thermal performance requirements similar to spray foam. Also, like spray foam systems, pour foam products tend to be sold in drums or other containers where the isocyanate is kept separate from the blowing agent and other ingredients (systems). However, there are some significant distinctions between the two end-uses. For example, some applications in these sub-segments are factory-controlled (e.g., commercial refrigeration) which means greater potential for making a liquid to gaseous transition or implementing hydrocarbon alternatives. Additionally, many pour foam applications do not have rigorous product requirements such as thermal insulation value, or extended field tests under ambient conditions.

Given the broadening of the petition process and development of the HCFC-141b exemption allowances, EPA recognizes that some formulators may petition the Agency for additional HCFC-141b in pour foam applications because their ability to use the same equipment in mixing spray and pour