October 14, 2004

DECISION AND ORDER
OFFICE OF HEARINGS AND APPEALS

Applications for Exception

Case Names:	SpacePak Unico, Inc.
Date of Filing:	May 24, 2004
Case Numbers:	TEE-0010 TEE-0011

This Decision and Order considers Applications for Exception filed by SpacePak and Unico, Inc. (Unico), seeking exception relief from the provisions of in C.F.R. Part 430, pertaining to energy conservation standards for central air conditioners and heat pumps (Air Conditioner Standards). SpacePak and Unico are manufacturers of small duct, high velocity (SDHV) air conditioning equipment. In their exception requests, SpacePak and Unico assert that they will suffer a serious hardship and an unfair distribution of burdens if forced to comply with the 13 SEER energy efficiency standard effective January 2006, 10 C.F.R. § 430.32(c). If their Applications for Exception were granted, the firms would receive exception relief from the revised standard. As set forth in this Decision and Order, we have concluded that the Applications for Exception should be granted.

I. Background

A. Air Conditioner Standards

The Air Conditioner Standards in 10 C.F.R. Part 430 were published as a final rule by the Department of Energy (DOE) on January 22, 2001, 66 Fed. Reg. 7170, as mandated by Congress in Part B of Title III of the Energy Policy and Conservation Act, as amended, 42 U.S.C. §§ 6291-6309 (EPCA). In the EPCA, Congress directed, *inter alia*, that DOE administer an energy conservation program for specified consumer products, including central air conditioners and heat pumps. The conservation program prescribed by the EPCA consists essentially of three parts: testing, labeling, and Federal energy conservation standards. The DOE measures the energy efficiency in the seasonal cooling performance of central air conditioners in terms of a Seasonal

Energy Efficiency Ratio (SEER) while the seasonal heating performance of heat pumps is measured by the Heating Seasonal Performance Factor (HSPF).

Since 1992, the Federal energy conservation standards for central air conditioners were set at a minimum of 10 SEER/6.8 HSPF for split system air conditioners and heat pumps, and 9.7 SEER/6.6 HSPF for single package air conditioners and heat pumps, pursuant to the National Appliance Energy Conservation Act of 1987, Pub. L. 100-12 (NAECA). However, the present Air Conditioner Standards will increase that level to 13 SEER for new central air conditioners and to 13 SEER/7.7 HSPF for new central air conditioning heat pumps, manufactured for sale in the United States as of January 23, 2006. For split-system air conditioners, the most common type of residential air conditioning equipment, the 13 SEER revised standard represents a 30 percent improvement in energy efficiency. As noted above, the Air Conditioner Standards were issued in final form on January 22, 2001.

However, on May 23, 2002, the DOE published another rulemaking in which it sought to withdraw and amend the 13 SEER established for air conditioners under the Air Conditioner Standards. Energy Conservation Program for Consumer Products: Central Air Conditioners and Heat Pumps Energy Conservation Standards, 67 Fed. Reg. 36368 (2002) (Amended Rule). The Amended Rule proposed to increase the 1992 minimum energy efficiency levels by 20 percent and establish 12 SEER and 7.4 HSPF for most central air conditioners and central air conditioning heat pumps.1/ In addition, the Amended Rule gave special recognition to small duct, high velocity (SDHV) systems, which the rule defined as follows:

> *Small duct, high velocity system* means a heating and cooling product that contains a blower and indoor coil combination that:
> (1) Is designed for, and produces, at least 1.2 inches of external static pressure when operated at the certified air volume rate of 220-350 CFM per rated ton of cooling; and
> (2) When applied in the field, uses high velocity room outlets generally greater than 1000 fpm which have less than 6.0 square inches of free area.

Amended Rule, 10 C.F.R. § 430.2, 67 Fed. Reg. at 36406. In response to comments received from manufacturers and trade associations, the DOE agreed that it was

---

1/ In the Amended Rule, the DOE stated its intention to withdraw the 13 SEER standard because it: (1) was promulgated without consulting with the Attorney General on potential anti-competitive effects, (2) contained a material defect in the statement of basis and purpose required by the Administrative Procedure Act, (3) contained an effective date in conflict with the Congressional Review Act, and (4) was based upon an erroneous conclusion that the 13 SEER standard was economically justified under the EPCA. 67 Fed. Reg. at 36368-69.

unlikely that SDHV systems would be able to meet the 12 SEER minimum requirement the agency proposed to establish for conventional air conditioners, and that SDHV systems would therefore require special consideration. The DOE concluded, in pertinent part:

> Although DOE has concluded that SDHV systems warrant their own product class, it has yet to determine an appropriate minimum efficiency standard for them. Therefore, this final rule provides that the NAECA-prescribed minimum standards covering all product types (e.g. 10 SEER/6.8 HSPF for split system air conditioners) will remain applicable to SDHV systems. DOE intends to conduct a separate rulemaking for SDHV systems to establish appropriate minimum efficiency standards for this class of product.

Amended Rule, 67 Fed. Reg. at 36398.

However, a separate rulemaking for SDHV systems was never completed. In late 2002, the Natural Resources Defense Council, consumer groups and attorneys general from 10 states brought suit in federal court challenging the DOE's attempt to substitute the 12 SEER standard under the Amended Rule for the 13 SEER standard the agency had previously adopted in the Air Conditioner Standards. On January 13, 2004, the U.S. Appeals Court for the Second Circuit in New York ruled in favor of the complainants, finding that the May 23, 2002, final rules promulgated by DOE withdrawing the standards it published as a final rule on January 22, 2001, and replacing them with less stringent standards, were not a valid exercise of DOE's authority under the EPCA. *National Resources Defense Council, et al. v. Abraham,* 355 F.3d 179 (2nd Cir. 2004). By invalidating the Amended Rule, the court's ruling effectively reinstated the Air Conditioner Standards and the 13 SEER rule, effective January 23, 2006, for most central air conditioners including SDHV systems.2/

B. Applications for Exception

Persons subject to the various product efficiency standards of Part 430 may apply to the DOE Office of Hearings and Appeals (OHA) for exception relief. *See Amana Appliances,* 27 DOE ¶ 81,006 (1999); *Midtown Development, L.L.C.,* 27 DOE ¶ 81,013 (2000); *Diversified Refrigeration, Inc.*, 28 DOE ¶ 81,005 (2001). In this regard, section 504 of the Department of Energy Organization Act authorizes OHA to make adjustments of any rule or order issued under the EPCA, consistent with the other

---

2/ On April 2, 2004, the DOE announced that it would not challenge the court's ruling but would enforce the 13 SEER standard for residential central air conditioners. *See* Energy Conservation Program for Consumer Products: Central Air Conditioners and Heat Pumps Energy Conservation Standards, 69 Fed. Reg. 50997, 50998 (August 17, 2004).

purposes of the Act, if necessary to prevent special hardship, inequity, or unfair distribution of burdens. 42 U.S.C. § 7194(a). *See generally* 10 C.F.R. Part 1003, Subpart B (OHA Procedural Regulations).

SpacePak and Unico are the primary manufacturers of SDHV equipment and assert in their respective applications that the firms will suffer a serious hardship and unfair distribution of burdens if forced to comply with the 13 SEER rule, effective January 2006. SpacePak explains in its application that the nature of SDHV equipment "is such that its performance is geared toward airflow through 2" diameter ducts, suitable for installation through conventional 2x4 stud walls as opposed to conventional air conditioning which use large ducts and is not suitable for installation in many existing homes." SpacePak Application for Exception at 1. Unico adds that "[b]ecause SDHV equipment operates at substantially lower air volumes and substantially higher air pressures compared to conventional equipment, the test procedure results in substantially lower computed efficiency ratings for SDHV products. No provision is given for the energy benefit of the small ducts due to its inherently lower thermal losses and leakage." Unico Application for Exception at 1.

Both SpacePak and Unico point out that the DOE recognized in its Amended Rule that the SDHV equipment would not be able to meet the proposed 12 SEER/7.4 HSPF standard and that the creation of a separate product class for SDHV systems was therefore appropriate. *See* 67 Fed. Reg. at 36396. Although the Amended Rule was invalidated by the federal appeals court on other grounds, SpacePak and Unico submit that the agency has not moved to promulgate a separate class for SDHV products and as a result will impose the higher 13 SEER rule with respect to SDHV products also, effective January 2006.3/ SpacePak and Unico maintain that the SDHV equipment simply cannot meet the 13 SEER/7.7 HSPF efficiency level and their products will effectively be eliminated from the market if forced to comply with this standard.

Two interested parties have filed comments in this proceeding. On May 26, 2004, the American Council for an Energy-Efficient Economy (ACEEE)4/ filed comments in support of granting exception relief to SpacePak and Unico. The ACEEE states that it "examined the available materials, and commissioned a review by a technical

---

3/ In a Technical Amendment published by the DOE on August 17, 2004, to conform the air conditioner regulations to the Second Circuit's decision, the DOE confirmed that the standard applicable to SDHV systems is 13 SEER/7.7 HSPF. The Technical Amendment, however, did retain a separate product class for SDHV systems. 69 Fed. Reg. 50997, 51001.

4/ The ACEEE identifies itself as a nonprofit, public-interest organization which seeks to promote energy efficiency as a means of achieving economic prosperity and environmental protection. The ACEEE has been involved in the promulgation of legislation and rulemakings establishing the federal efficiency standards.

authority" and it agrees that "the special characteristics and almost unique markets of SDHV equipment warrant niche product status with efficiency standards specific to the SDHV product class." ACEEE Comments at 2. The ACEEE "recommends that the Standard for SDHV be set at 1.5 SEER points less than the level for mainstream residential air-conditioners and heat pumps, *i.e.*, at 10.5 for a general SEER 12 standard, or 11.5 for a general SEER 13 standard." *Id.* at 3. On June 16, 2004, Lennox International Inc. (Lennox) filed comments also in support of granting exception relief to SpacePak and Unico, stating that it "agrees that these products and manufacturers would be unfairly burdened by the current DOE interpretation that SDHV systems must meet the 13 SEER/7.7 HSPF minimum level on January 23, 2006." Lennox Comments at 1.

II. Analysis

We have carefully considered the Applications for Exception filed by SpacePak and Unico and concluded that the firms should be granted exception relief. The DOE recognized in the Amended Rule that due to its unique design characteristics, SDHV equipment cannot meet the higher efficiency levels applicable to conventional air conditioning systems. An SDHV system consists of a conventional outdoor (condensing) unit, produced by other manufactures, and a special indoor (blower-coil) unit and air distribution system produced respectively by SpacePak and Unico. Unlike conventional air conditioners that use large ducts, the indoor coil section of an SDHV system is compactly designed to facilitate retrofit installation in tight spaces, resulting in smaller face area and more rows of tubing than conventional systems. The compact fan coil design and small ducts contribute to high static pressure loss that must be overcome by the blower, requiring greater fan power, and thus make it more difficult for SDHV systems to increase energy efficiency.

The Amended Rule was invalidated by the federal court on procedural grounds and the proper interpretation of section 325(o)(1) of the EPCA. However, we are persuaded that the agency's observations with respect to SDHV equipment in the Amended Rule remain accurate. The DOE agreed with the SDHV manufacturers and industry associations that these manufacturers would be unable to meet the 12 SEER minimum requirement which the agency sought to establish in 2002. The record of this proceeding supports the DOE's conclusion. We therefore find that they will be unable to meet the 13 SEER standard due to become effective in January 2006, under the revised Air Conditioner Standards.

In addition to technological constraints, we believe that other factors favor the granting of exception relief in this case. We have previously determined that the same factors considered by the agency in promulgating energy conservation standards are useful in evaluating claims for exception relief. *See Viking Range Corp.*, 28 DOE ¶ 81,002 at 82,506 (2000). These factors are specified in Section 325 of the EPCA and

include economic impact on the manufactures and consumers, net consumer savings, energy savings, impacts on product utility, impact on competition, need for energy conservation, and other relevant factors. EPCA § 325(o)(2)(B)(1), 42 U.S.C. § 6295(o)(2)(B)(1). In the present case, we find that the failure to provide exception relief will result in a serious hardship to SpacePak and Unico which account for nearly the entire SDHV equipment manufacturing industry. In the absence of relief, SpacePak projects "the loss of all sales within the United States." SpacePak Application for Exception at 1.

The SDHV manufacturing is a niche industry comprising less that ½ of 1 percent of the residential cooling market. SDHV systems are used primarily to retrofit older buildings that were constructed without conventional air duct systems that might be used for central air conditioning. Thus, the unavailability of these systems in the marketplace would negatively impact domestic consumers.5/ At the same time, we find that granting exception relief to SDHV manufacturers will not have a significant impact upon competition within the air conditioner industry and will not impede the agency's efforts to promote energy conservation in the nation as a whole.

On the basis of the foregoing, we conclude that SpacePak and Unico will suffer a serious hardship and unfair distribution of burdens if required to adhere to the 13 SEER efficiency level effective January 23, 2006, and therefore should be granted exception relief from the Air Conditioner Standards. 42 U.S.C. § 7194(a); 10 C.F.R. § 1003.25(b)(2). Additional information submitted by SpacePak indicates that its SDHV systems test up to two SEER efficiency points below conventional air conditioning systems when its SDHV indoor coil system is paired with a 13 SEER outdoor condensing unit. A more detailed engineering study submitted by Unico indicates that its SDHV systems achieve a mean efficiency of 10.96, absent the standard deviation, when similarly matched with an average 13 SEER outdoor unit. On the basis of this information, we have determined that in place of the general 13 SEER rule, we shall establish a 11.0 SEER standard for SDHV systems manufactured for sale by SpacePak and Unico, effective January 23, 2006. The corresponding HSPF efficiency standard, applicable to air conditioning heat pumps, will remain at 6.8 for SDHV heat pumps produced and sold by SpacePak and Unico. The exception relief approved for SpacePak and Unico will remain in effect until such time as the agency modifies the general energy efficiency standard for central air conditioners and establishes another standard for SDHV systems that comports with the EPCA.

5/ We agree with the assessment made by Lennox in its comments: "While this product is a small part of the central air conditioning and heat pump market, it is the most practical means for providing air conditioning in those retrofit applications where installation of conventional ductwork systems is not practical. If the 13 SEER/7.7 HSPF requirement is not eased, these systems will not be available, and air conditioning will become less available to this market niche." Lennox Comments at 1.

It Is Therefore Ordered That:

(1) The Application filed by SpacePak and Unico, Inc. (the applicants) on May 24, 2004, is hereby granted as set forth in Paragraph (2) below.

(2) Notwithstanding the requirements of 10 C.F.R. Part 430.32(c), on or after January 23, 2006, the applicants are hereby authorized to manufacture for sale small duct, high velocity systems (SDHV), as defined in section 430.2, having a Seasonal Energy Efficiency Ratio (SEER) of not less than 11.0, and a Heating Seasonal Performance Factor (HSPF) of 6.8. This exception relief will remain in effect until such time as the agency modifies the general energy efficiency standard for central air conditioners and establishes a different standard for SDHV systems that comports with the EPCA.

(3) Any person aggrieved by the approval of exception relief in this Decision and Order may file an appeal with the Office of Hearings and Appeals in accordance with 10 C.F.R. Part 1003, Subpart C.

George B. Breznay
Director
Office of Hearings and Appeals

Date: October 14, 2004