

Note: OHA redacted confidential proprietary business information from this Decision and Order in accordance with 10 C.F.R. § 1003.9(f)(2) and 10 C.F.R. §§ 1004.11(f)(1)-(6). OHA replaced redacted information with XXXXX.

February 28, 2008

**DECISION AND ORDER
OF THE DEPARTMENT OF ENERGY**

Application for Exception

Case Name: ECR International

Date of Filing: September 6, 2007

Case Number: TEE-0049

ECR International filed an Application for Exception with the Department of Energy's (DOE) Office of Hearings and Appeals (OHA) on September 6, 2007. The firm requests continued relief from conducting low temperature tests on its ductless, multiple-zone (DMZ) heat pumps to determine the heat pumps' heating seasonal performance factor (HSPF), as 10 C.F.R. Part 430 requires. For the reasons set forth below, we have concluded that ECR International's Application for Exception should be denied.

I. Background

1. **ECR International's Application for Exception**

DOE regulations require ECR International and similarly situated firms to test its various heat pumps¹ at 17 degrees² to obtain data to calculate the heat pumps' HSPF, which is a measure of energy efficiency. 10 C.F.R. Pt. 430, Subpt. B, App. M. ECR International applies for an exception because it alleges that its heat pumps cannot operate below an outdoor temperature of 35 degrees, and therefore cannot comply with DOE's Part 430 testing requirements to calculate an HSPF. ECR International is selling its non-complying heat pumps under an exception that we granted ECR International in April 2003 (see details, below). That exception will expire at the end of March 2008.

In its Application for Exception, ECR International explains that a DMZ heat pump provides heat and/or air conditioning in buildings lacking a central air duct system. A DMZ heat pump can simultaneously circulate air in several different areas or "zones" of a building. ECR International maintains that its DMZ heat pumps cannot operate below 35 degrees because the heat pumps' four coil circuits share a single fan motor. Because each

¹ ECR International previously manufactured its DMZ heat pump as its MH series. ECR International now produces DMZ heat pumps in a variety of lettered series. See Application for Exception, Sept. 6, 2007. Therefore, this Decision does not specifically reference the MH series.

² All temperatures referenced in this Decision are measured using the Fahrenheit (F) scale.

of the coil circuits heats or cools a zone independently, the coil circuits operate at different temperatures. Yet, providing cool air or “defrosting” one coil while the other three coils operate with warm air reduces energy efficiency. Rather than operate inefficiently, the heat pumps shut down at 35 degrees. E-mail from Scott Toukatly, ECR International, to David M. Petrush, OHA, Nov. 15, 2007.

ECR International’s competitors engineer their DMZ heat pumps differently, using a “variable refrigerant flow” system. *Id.* The only technologies in the niche DMZ heat pump market are variable refrigerant flow and ECR International’s multiple coil design. E-mail from Michael Raymond, Building Technologies Program, Energy Efficiency and Renewable Energy (EE), DOE, to David M. Petrush, OHA, Dec. 31, 2007.

DOE first promulgated regulations requiring companies to measure their heat pumps’ HSPF in 1977. Variable refrigerant flow technology was invented in the early 1980’s. *Id.* DOE published a final rule, effective April 21, 2008, which provides a procedure to measure HSPF for variable refrigerant flow DMZ heat pumps. E-mail from Michael Raymond, EE, DOE, to David M. Petrush, OHA, Dec. 3, 2007; *see also* 72 Fed. Reg. 59906 (Oct. 22, 2007). DOE intentionally declined to modify its HSPF testing procedure to allow ECR International’s multiple coil design to test for an HSPF. E-mail from Michael Raymond, EE, DOE, to David M. Petrush, OHA, Dec. 31, 2007.

ECR International is a member of the Air Conditioning & Refrigeration Institute (ARI). All ARI member companies sell DMZ heat pumps. ECR International’s heat pumps represent XXXXX of the DMZ heat pump market for ARI member companies. “[M]any other” Asian companies that are not ARI members sell similar heat pumps. E-mail from Tom Legutko, ECR International, to David M. Petrush, OHA, Oct. 29, 2007. ECR International’s annual DMZ heat pump sales receipts are approximately XXXXX or XXXXX of its total business of approximately XXXXX. E-mail from Scott Toukatly, ECR International, to David M. Petrush, OHA, Dec. 20, 2007.

ECR International’s DMZ heat pumps serve the light commercial market that requires electric heat, 24v thermostats, independent circuits, and circuit sizes greater than 36,000 Btu/hr. E-mail from Scott Toukatly, ECR International, to David M. Petrush, OHA, Nov. 15, 2007. At least four companies domestically sell variable refrigerant flow DMZ heat pumps with all or a combination of these features. Those heat pumps can operate at 17 degrees and comply with DOE’s regulatory HSPF testing requirements. *See* Memorandum of Telephone Conversations between representatives of Freidrich, Quietside Corp., Rheem Manufacturing, Carrier Corp., and David M. Petrush, OHA, Feb. 8, 2008.

ECR International provided notice of its Application for Exception to its competitors and an opportunity to provide OHA comments, as 10 C.F.R. § 1003.23(a) requires. Letter from Scott Toukatly, ECR International, to various companies’ ductless section representatives, Sept. 28, 2007. None of ECR International’s competitors provided OHA comments.

2. ECR International's Previous Applications for Exception

DOE has twice granted ECR International relief from its regulatory heat pump HSPF testing requirements. *See* Waiver From Central Air Conditioner Test Procedure to Enviro Master Int'l, 57 Fed. Reg. 53734 (Energy Dep't, Nov. 12, 1992) (Decision and Order). DOE's Office of Conservation and Renewable Energy granted EMI (ECR International's XXXXX company)³ a waiver from testing its DMZ heat pumps at the Part 430-mandated 17 degrees because the heat pumps could not operate below 35 degrees. *Id.* at 53735. DOE required EMI to state in its printed heat pump material that their HSPF values have not been measured. *Id.* at 53736.

In 2003, OHA granted EMI exception relief from DOE's regulatory HSPF testing requirements. *See EMI Corp.*, 28 DOE ¶ 81,018 (TEE-0006) (April 1, 2003). EMI's heat pumps were still unable to operate below 35 degrees, and therefore could not be tested at the Part 430-mandated 17 degrees. Further, we recognized that requiring EMI to comply with Part 430's requirements might have sharply curtailed EMI's heat pump production, thereby limiting heat pump manufacture in the United States. Therefore, the small class of heat pump purchasers would have been unduly burdened. We granted EMI exception relief for a five-year period, due to expire on March 31, 2008. We required EMI to state in its printed heat pump material that their HSPF values have not been measured. *Id.*

II. Discussion

1. Authority

a. *Congressional Heat Pump Efficiency Standards and DOE's Regulatory Testing Requirements*

The Energy Policy and Conservation Act (EPCA) requires all "split system" heat pumps to meet a minimum HSPF standard of 6.8. 42 U.S.C. § 6295(d)(2)(A). The EPCA allows DOE to amend Congress' specified minimum HSPF standards. 42 U.S.C. § 6295(d)(3)(A). However, DOE may not adopt an energy standard that decreases a heat pump's minimum required energy efficiency. 42 U.S.C. § 6295(o)(1). DOE adopted a minimum split system heat pump HSPF standard of 7.7, which requires greater efficiency than Congress' standard. 10 C.F.R. § 430.32(c)(2)(ii); *see also* 69 Fed. Reg. 50997-01 (Aug. 17, 2004).

The EPCA allows DOE to establish test procedures by which manufacturers certify that their heat pumps meet the required HSPF standards. 42 U.S.C. § 6314(a)(1). DOE then established its Part 430 HSPF test procedures. *See* 10 C.F.R. Pt. 430, Subpt. B, App. M. Relevant here, Part 430 requires all heat pump manufacturers, including ECR International, to test its heat pumps at 17 degrees to obtain data to calculate the heat pumps' HSPF. *Id.*

³ XXXXX.

b. *OHA's Authority to Grant Exception from DOE's Regulatory Requirements, and OHA's Exception Precedent*

The Department of Energy Organization Act authorizes us to make “adjustments,” including exception, to any rule or order that DOE issues under the EPCA, to prevent special hardship, inequity, or unfair distribution of burdens. 42 U.S.C. § 7194(a); 10 C.F.R. §§ 1003.20 (Subpart B), 1003.30 (Subpart C).

We must specify the standards upon which we grant an exception; i.e., we must explain when a special hardship, inequity, or unfair distribution of burdens warrants relief. 42 U.S.C. § 7194(a). We may grant exception relief when the inherent design of the entire appliance class prevents it from complying with the DOE regulation. *Energy Sav. Prod., Ltd.*, 29 DOE ¶ 81,015 (TEE-0026) (Dec. 20, 2005) (citing *SpacePak*, 29 DOE ¶ 81,002 (TEE-0010, 0011) (Oct. 14, 2004)). We may also grant exception relief when complying with the DOE regulation creates economic burdens for the manufacturer and/or consumers that outweigh the standard's benefits. *SpacePak*, 29 DOE ¶ 81,002 (TEE-0010, 0011) (Oct. 14, 2004) (citing 42 U.S.C. § 6295(o)(2)(B)(i)(I), which lists economic and other factors that DOE considers when adopting efficiency standards more strict than Congress' standards). However, we will not grant exception relief to alleviate a burden attributable to a discretionary business decision rather than the impact of DOE regulations. *Refricenter Int'l*, 29 DOE ¶ 81,012 (TEE-0024) (Nov. 22, 2005).

In evaluating each case, we must apply our exception standards to the facts at issue. 42 U.S.C. § 7194(a). We apply the above standards from our case precedent in the first part of our analysis, below.

2. Analysis

a. *Following OHA Precedent, ECR International Does Not Warrant Exception Relief from Conducting Low-Temperature Tests on its DMZ Heat Pumps*

In *Refricenter Int'l*, we denied exception relief to an appliance distributor. The appliance distributor had been aware of DOE's regulatory requirement for at least five years, as well as the existence of technology capable of meeting the requirement. Yet, the appliance distributor chose not to invest in complying technology.

Here, ECR International has had notice of DOE's HSPF testing requirement since at least 1992, when it first applied for exception relief. ECR International has thus known of DOE's regulatory requirement far longer than the appliance distributor in *Refricenter Int'l*. ECR International has also been aware of DMZ heat pump technology capable of meeting DOE's HSPF testing requirements. Like the appliance distributor in *Refricenter Int'l*, ECR International has not made the business decision to invest in conforming technology. Therefore, following *Refricenter Int'l*, we should deny ECR International's application for exception relief.

In *SpacePak*, we granted a manufacturer exception relief because the appliance's inherent design features rendered the appliance class as a whole unable to meet a DOE regulation. DOE commented that the appliance class should have its own regulatory scheme. Meanwhile, denying exception relief and precluding the manufacturers from producing the appliances would have burdened consumers because the two manufacturers represented nearly the entire appliance industry. Denying the manufacturer exception relief would have also burdened the manufacturer, ostensibly because its sales of the particular appliance constituted a large portion of their business.

Here, by contrast, the DMZ heat pump appliance class as a whole includes designs capable of meeting DOE's HSPF testing requirements. In fact, the technology to do so has existed since the early 1980's. DOE has already promulgated an energy efficiency regulatory scheme to address DMZ heat pumps. Here, unlike *SpacePak*, DOE specifically declined to modify its HSPF testing procedures to accommodate ECR International's DMZ heat pump design.

Further, unlike *SpacePak*, ECR International will not suffer an unfair economic burden if we deny it exception relief because ECR International's DMZ heat pump sales constitute only XXXXX of its total business.

Lastly, unlike *SpacePak*, consumers would not be burdened if we deny ECR International exception relief because ECR International represents only a small percentage of the DMZ heat pump market. (For this reason, ECR International's current Application for Exception is markedly different from its 2003 Application.) ECR International stated that its DMZ heat pumps serve the light commercial market, with circuit sizes greater than 36,000 btu/hr, etc. We are aware of at least four other companies that domestically sell similarly performing DMZ heat pumps. Therefore, ECR International's Application for Exception does not share the factors that supported exception relief in *SpacePak*. Accordingly, we will deny ECR International's Application for Exception.

It Is Therefore Ordered That:

(1) ECR International's Application for Exception (Case No. TEE-0049), filed on September 6, 2007, is hereby denied.

(2) Any persons aggrieved or adversely affected by this denial of exception relief may seek administrative review of this Decision and Order by filing a Petition for Review with the Federal Energy Regulatory Commission within 30 days of the date of this Decision and Order, pursuant to 18 C.F.R. Part 385, Subpart J.

Poli A. Marmolejos
Director
Office of Hearings and Appeals

Date: February 28, 2008