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This section of the FEDERAL REGISTER contains notices to the public of the proposed issuance of rules and regulations. The purpose of these notices is to give interested persons an opportunity to participate in the rule making prior to the adoption of the final rules.

DEPARTMENT OF ENERGY

Office of Energy Efficiency and Renewable Energy

10 CFR Part 431

[Docket Nos. EE–RM/STD–03–100, EE–RM/STD–03–200, and EE–RM/STD–03–300]

RIN Nos. 1904–AB16, 1904–AB17, and 1904–AB44

Energy Efficiency Program for Commercial and Industrial Equipment: Efficiency Standards for Commercial Heating, Air-Conditioning and Water Heating Equipment

AGENCY: Office of Energy Efficiency and Renewable Energy, Department of Energy.

ACTION: Notice of document availability and request for comments.

SUMMARY: The Energy Policy and Conservation Act (EPCA), as amended, establishes energy efficiency standards for various commercial equipment. The Department of Energy (the Department or DOE) is assessing whether to adopt, as uniform national standards, efficiency standards contained in amendments to the American Society of Heating, Refrigerating and Air-Conditioning Engineers, Inc. (ASHRAE) and Illuminating Engineering Society of North America (IESNA) Standard 90.1 for certain types of commercial equipment. Such commercial equipment includes gas-fired instantaneous water heaters, packaged terminal air conditioners and heat pumps, commercial packaged boilers, three-phase air conditioners and heat pumps <65,000 Btu/h, and single-package vertical air conditioners and heat pumps <65,000 Btu/h, collectively known as single-package vertical units, covered by EPCA. This notice announces the availability of a technical support document (TSD) the Department is using in making this assessment. The Department invites written comments on the TSD and on DOE's preliminary conclusions, which are set forth in this notice.

DATES: The Department will accept written comments, data, and information in response to this notice, but no later than April 27, 2006. See section III, ''Public Participation,'' of this notice for details.

ADDRESSES: Please submit comments, identified by docket numbers EE–RM/STD–03–100, EE–RM/STD–03–200, and EE–RM/STD–03–300 and/or RIN numbers 1904–AB16, 1904–AB17, and 1904–AB44, by any of the following methods:

- *Federal eRulemaking Portal: http://www.regulations.gov.* Follow the instructions for submitting comments.
- *E-mail: ASHRAE.Product.Rule@ee.doe.gov.* Include EE–RM/STD–03–100, EE–RM/STD–03–200, and EE–RM/STD–03–300 and/or RIN 1904–AB16, 1904–AB17, and 1904–AB44 in the subject line of the message.
- *Mail:* Ms. Brenda Edwards-Jones, U.S. Department of Energy, Building Technologies Program, Mailstop EE–2J, ASHRAE Commercial Five-Products Standards, 1000 Independence Avenue, SW., Washington, DC 20585–0121. Telephone: (202) 586–2945. Please submit one signed original paper copy.
- Hand Delivery/Courier: Ms. Brenda Edwards-Jones, U.S. Department of Energy, Building Technologies Program, Room 1J–018, 1000 Independence Avenue, SW., Washington, DC 20585.

Instructions: All submissions received must include the agency name and docket number or Regulatory Information Number (RIN) for this proceeding. For detailed instructions on submitting comments and additional information on the proceeding, see section III of this document (Public Participation).

Docket: For access to the docket to read background documents and the TSD, or comments received, go to the U.S. Department of Energy, Forrestal Building, Room 1J–018 (Resource Room of the Building Technologies Program), 1000 Independence Avenue, SW., Washington, DC, (202) 586–9127, between 9 a.m. and 4 p.m., Monday through Friday, except Federal holidays. Please call Ms. Brenda Edwards-Jones at the above telephone number for additional information regarding visiting the Resource Room. Please note: The Department's Freedom of Information Reading Room (formerly Room 1E–190 at the Forrestal Building) is no longer housing rulemaking materials. The docket will also be posted to the Federal Docket Management System through the Federal eRulemaking Portal (*http://www.regulations.gov*) after the comment period closes.

You can also obtain the report of DOE's screening analysis (discussed below) and the TSD electronically from DOE's Building Technologies Program's Web site at the following URL address: *http://www.eere.energy.gov/buildings/appliance_standards/.*

This notice refers to industry standards established by ASHRAE and IESNA in ASHRAE/IESNA Standard 90.1, Energy Standard for Buildings Except Low-Rise Residential Buildings (Standard 90.1). The revisions of Standard 90.1 are referred to by year of publication. For example, the 1999 revision is referred to below as Standard 90.1–1999. This standard is available at the Resource Room of the Building Technologies Program at the address stated above. Copies are also available by mail from the American Society of Heating, Refrigerating, and Air-Conditioning Engineers, Inc., 1971 Tullie Circle, NE., Atlanta, GA 30329, or electronically from ASHRAE's Web site, *http://www.ashrae.org/book/bookshop.htm.*

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SUPPLEMENTARY INFORMATION:

I. Introduction

A. Authority

Part C of Title III of the Energy Policy and Conservation Act (EPCA) addresses the energy efficiency of certain types of commercial and industrial equipment, such as electric motors, air conditioners, and furnaces. (42 U.S.C. 6311–6317) It contains, for example, definitions, test procedures, labeling provisions, and energy conservation standards, including specific mandatory energy conservation standards for certain tankless, gas-fired instantaneous water heaters (IWHs), packaged terminal air conditioners (PTACs) and packaged terminal heat pumps (PTHPs), commercial packaged boilers, and commercial package air-conditioning and heating equipment (including three-phase air conditioners (ACs) and heat pumps (HPs) <65,000 Btu/h and single-package vertical air conditioners (SPVACs) and single-package vertical heat pumps (SPVHPs) <65,000 Btu/h). (42 U.S.C. 6313(a)(1)–(5))

The energy conservation standards set in EPCA for commercial and industrial equipment generally correspond to the levels in Standard 90.1, as in effect on October 24, 1992 (Standard 90.1–1989). The statute provides that if Standard 90.1 is amended after that date for any of this equipment (and for certain other equipment), the Secretary of Energy must establish an amended uniform national standard at the new minimum level for each effective date specified in Standard 90.1, unless the Secretary determines, through a rulemaking supported by clear and convincing evidence, that a more stringent standard is technologically feasible and economically justified and would result in significant additional energy conservation. (42 U.S.C. 6313(a)(6)(A))

In any such rulemaking, the rule must contain the amended standard, and the Secretary must determine whether the economic benefits of the standard exceed its burdens, considering factors specified by the statute and other factors the Secretary considers relevant. (42 U.S.C. 6313(a)(6)(B)(i)) The Secretary may not prescribe an amended standard if the Secretary finds (and publishes the finding) that interested persons have established by a preponderance of evidence that the amended standard is likely to result in unavailability in the United States of products with performance characteristics (including reliability), features, sizes, capacities, and volumes that are substantially the same as those generally available in the United States at the time of the Secretary's finding. (42 U.S.C. 6313(a)(6)(B)(ii)) Also, the Secretary may not prescribe any amended standard which increases maximum allowable energy use, or decreases the minimum required energy efficiency, of a covered product. (42 U.S.C. 6313(a)(6)(B)(ii))

Finally, Federal energy efficiency requirements for commercial equipment generally preempt State laws or regulations concerning energy conservation testing, labeling, and standards. (42 U.S.C. 6316 (a)–(b)) The Department can, however, grant waivers of preemption for particular State laws or regulations, in accordance with the procedures and other provisions of section 327(d) of the Act. (42 U.S.C. 6297(d) and 6316(b)(2)(D))

B. Background

1. ASHRAE Amendment of Standard 90.1 and DOE Response

On October 29, 1999, ASHRAE's Board of Directors gave final approval to Standard 90.1–1999, which addressed efficiency levels for 34 categories of commercial heating, ventilating and air-conditioning (HVAC) and water heating equipment covered by EPCA. The new Standard 90.1 (Standard 90.1–1999) revised the efficiency levels of the existing Standard 90.1–1989 for certain equipment. For the remaining equipment, ASHRAE left the preexisting levels in place, after considering revision of the levels for some equipment and deferring consideration of others.

Following the publication of Standard 90.1–1999, the Department performed a screening analysis that covered 24 of the categories of equipment to help decide what action it would take with respect to the new efficiency levels. The Department did not specifically analyze the other 10 categories of equipment because there was insufficient data describing baseline energy consumption, a small market for these products, a lack of product shipment data, or an absence of a suitable methodology to distinguish its heating function. For each of these types of equipment that was included in the screening analysis, the Department examined a range of efficiency levels that included the levels specified in EPCA and Standard 90.1–1999, as well as the levels associated with the lowest life-cycle cost (LCC). For each potential efficiency level above the EPCA standard, the Department estimated the incremental national energy and carbon emission savings and the net nationwide direct economic benefit (national net present value (NPV)) resulting for the period 2004 to 2030 from setting a standard at that level. The baselines for the comparison were the corresponding levels specified in Standard 90.1–1999 and EPCA.

Following completion of the screening analysis, the Department published a notice that described the screening analysis and announced its public availability. For each equipment category for which ASHRAE adopted or considered a revised standard level, the notice stated whether the Department was inclined to immediately adopt the standard level in Standard 90.1–1999, or to undertake a more thorough analysis to determine if a more stringent level was warranted. For the equipment categories that ASHRAE did not address in revising Standard 90.1—namely, three-phase air conditioners and heat pumps with capacities under 65,000 Btu per hour—DOE stated that it had tentatively decided to take no action until ASHRAE had amended Standard 90.1's efficiency levels for these types of equipment. Finally, the notice published on May 15, 2000, announced a public meeting and invited written comment on the screening analysis and DOE's planned actions. 65 FR 30929 (May 15, 2000).

Following the public meeting on July 11, 2000, the Department adopted the efficiency levels in Standard 90.1–1999 as Federal standards to replace existing EPCA levels for 18 equipment categories of commercial air conditioners, heat pumps, furnaces, water heaters, and hot water storage tanks. For electric water heaters, DOE rejected the Standard 90.1–1999 level, leaving the EPCA level in place. 66 FR 3335, 3336–37, 3349–52 (January 12, 2001) (the ''January 2001 final rule'').

For 11 of the 24 other categories of commercial equipment analyzed in the screening analysis, the Department stated it would evaluate whether to adopt more stringent standards than those contained in Standard 90.1–1999. 66 FR 3336–38, 3349–52. The Department selected these categories of equipment for further evaluation

because the screening analysis indicated at least a reasonable possibility of finding that more stringent standards ''would be technologically feasible and economically justified and would result in significant additional conservation of energy.'' 66 FR 3349. These are the criteria EPCA prescribes for the adoption of standards more stringent than those in Standard 90.1. (42 U.S.C. 6313(a)(6)(A)) The Department stated that it could discontinue its evaluation of any of these types of equipment, however, and adopt the Standard 90.1–1999 efficiency level, whenever it concluded that these criteria are not likely to be satisfied. 66 FR 3348. However, DOE had previously indicated that it would take such action only after seeking public comment. 65 FR 30932. For the four categories of three-phase air-conditioning equipment that ASHRAE had not addressed in Standard 90.1–1999, the Department encouraged ASHRAE to amend its efficiency levels for this equipment in conjunction with the then-pending DOE standards rulemaking for similar, single-phase residential products, and stated that DOE would act once ASHRAE had adopted such amendments. The standard levels prescribed in EPCA and Standard 90.1–1999 for these 15 equipment categories appear in Tables I.1 and I.2. In addition, the Energy Policy Act of 2005 (EPACT 2005) included energy efficiency standards for some of this commercial equipment, and those new standards also appear in the tables.

TABLE I.1.—STANDARD EFFICIENCY LEVELS FOR AIR CONDITIONERS AND HEAT PUMPS

Type of product	Capacity/characteristics	Standard efficiency level*		
		EPCA	ASHRAE 90.1–1999	EPACT 2005
Small Commercial Package Air-Conditioning and Heating Equipment.	<65 kBtu/h Air-Cooled, 3 Phase, Central Split-System AC, HP.	SEER: 10.0, HSPF: 6.8.	SEER: 10.0, HSPF: 6.8.	None.
	<65 kBtu/h Air-Cooled, 3 Phase, Central Single-Package AC, HP.	SEER: 9.7, HSPF: 6.6.	SEER: 9.7, HSPF: 6.6.	None.
	≥65 kBtu/h and <135 kBtu/h Air-Cooled, Central AC.	EER: 8.9**	EER: 10.3**	EER: 11.2**††.
	≥65 kBtu/h and <135 kBtu/h Air-Cooled, Central HP.	EER: 8.9**, COP: 3.0†.	EER: 10.3**, COP: 3.2†.	EER: 11.0**, COP: 3.3†.
Large Commercial Package Air-Conditioning and Heating Equipment.	≥135 kBtu/h and <240 kBtu/h Air-Cooled, Central AC.	EER: 8.5**	EER: 9.7**	EER: 11.0**††.
	≥135 kBtu/h and <240 kBtu/h Air-Cooled, Central HP.	EER: 8.5**, COP: 2.9†.	EER: 9.3**, COP: 3.1†.	EER: 10.6**, COP: 3.2†.
Packaged Terminal Air Conditioners and Heat Pumps.	Air-Cooled	EER, COP COP vary by capacity according to formulas for each.	EER, COP vary by capacity according to formulas for each (different formulas for new construction and replacement products).	None.

* Heating efficiency levels do not apply to cooling-only air conditioners.
** At 95 °F dry-bulb temperature.
† At 47 °F dry-bulb temperature.
†† This EER level applies to equipment that has electric resistance heat or no heating. For units with all other heating-system types that are integrated into the unitary equipment, deduct 0.2 EER.

TABLE I.2.—STANDARD EFFICIENCY LEVELS FOR BOILERS AND WATER HEATERS

Type of equipment	Capacity	Standard efficiency level		
		EPCA	ASHRAE 90.1–1999	EPACT 2005
Packaged Boilers	>300 kBtu/h	Combustion Efficiency*: 80% Gas, 83% Oil.	Thermal Efficiency*: 75% Gas, 78% Oil.	None.
	≤ 2,500 kBtu/h			
	>2,500 kBtu/h	Combustion Efficiency*: 80% Gas, 83% Oil.	Combustion Efficiency*: 80% Gas, 83% Oil.	None.
Tankless, Gas-Fired Instantaneous Water Heaters.	V<10 gal	Thermal Efficiency: 80%.	Thermal Efficiency: 80%.	None.

* At maximum rated capacity.

EPACT 2005 prescribed more stringent standards than those contained in Standard 90.1–1999 for commercial package air-conditioning and heating equipment between 65,000 and 240,000 Btu per hour covered in Table I.1.[1] The Department has not initiated individual rulemakings for the remaining equipment covered in Tables I.1 and I.2,

[1] SPVACs and SPVHPs, collectively referred to as SPVUs, are types of small and large commercial package air-conditioning and heating equipment. ASHRAE did not recognize and evaluate them as separate equipment categories in Standard 90.1–1999, nor did EPCA recognize them as separate equipment categories.

which is the subject of this notice and which the screening analysis categorized as follows:

- Three-Phase Split-System, Air-Cooled Air Conditioners <65,000 Btu/h
- Three-Phase Single-Package, Air-Cooled Air Conditioners <65,000 Btu/h
- Three-Phase Split-System, Air-Cooled Heat Pumps <65,000 Btu/h
- Three-Phase Single-Package, Air-Cooled Heat Pumps <65,000 Btu/h
- Packaged Terminal Air Conditioners
- Packaged Terminal Heat Pumps
- Small, Gas-fired Boilers 0.3–2.5 Million Btu/h (MMBtu/h)
- Small, Oil-fired Boilers 0.3–2.5 MMBtu/h
- Large, Gas-fired Boilers ≥2.5 MMBtu/h
- Large, Oil-fired Boilers ≥2.5 MMBtu/h
- Tankless, Gas-Fired Instantaneous Water Heaters
- Single-Package Vertical Air Conditioners [2]
- Single-Package Vertical Heat Pumps [3]

The screening analysis results for these equipment categories are shown in Table I.3, except for the oil-fired packaged boilers and SPVUs, which DOE did not study in the screening analysis. For each equipment category, Table I.3 shows the efficiency level corresponding to the lowest average LCC and highest NPV, taking into account both the costs of efficiency improvements and the savings from reduced energy consumption. Each efficiency level is above the level specified in Standard 90.1–1999. Table I.3 also shows the following potential benefits, which the screening analysis estimates for the period from 2004 to 2030, from setting a standard at the higher level:

- The estimated nationwide energy savings, expressed in trillions of British thermal units (Tbtu);
- The estimated net nationwide direct economic benefit, represented by the NPV; and
- The estimated reductions in atmospheric carbon emissions, in millions of tons.

TABLE I.3.—ENERGY SAVINGS, NET PRESENT VALUE AND CARBON EMISSION REDUCTIONS FROM 2004 TO 2030 AT ENERGY EFFICIENCY LEVELS CORRESPONDING TO LOWEST LIFE-CYCLE COST

[Source: screening analysis]

Equipment category	Efficiency level at minimum life-cylce cost	Relative to ASHRAE standard 90.1–1999		
		National energy savings (TBtu)	National total NPV (millions of 1998 $'s)	National carbon emission reductions (million tons)
3-Phase, Single-Package Air-Source Air Conditioners, <65 kBtu/h.	12.0 SEER	1412.7	897.7	21
3-Phase, Split-System Air-Source Air Conditioners, <65 kBtu/h.	11.0 SEER	278.6	109.1	4
3-Phase, Single-Package Air-Source Heat Pumps, <65 kBtu/h.	12.0 SEER	183.6	91.3	3
3-Phase, Split-System Air-Source Heat Pumps, <65 kBtu/h	12.0 SEER	66.4	47.0	1
Packaged Terminal Air Conditioners**	10.5 EER	311.7	274.7	5
Packaged Terminal Heat Pumps**	9.9 EER	249.0	241.9	4
Small, Gas-fired Commercial Packaged Boilers, ≤2.5 MMBtu/h.	78.7%	200.0	146.0	3
Large, Gas-fired Commercial Packaged Boilers, ≥2.5 MMBtu/h.	85.3%*	79.0	86.6	1
Tankless, Gas-Fired Instantaneous Water Heaters	81.5%	102.0	45.3	2

* Efficiency shown is shipment-weighted averaged value of Large, Steam Commercial Packaged Boilers (76–81 percent), and Large, Hot Water Commercial Packaged Boilers (78–88 percent).
** PTAC/PTHP minimum LCC EER values are based on capacity-weighted shipments.

2. Subsequent Action by the Department

The Department has further reviewed the energy savings potential and the efficiency levels in Standard 90.1–1999 for four out of the five types of equipment, as set forth in the TSD. Table I.4 summarizes the Department's actions for each product in today's notice.

TABLE I.4.—SUMMARY OF DOE'S ACTIONS BY PRODUCT

Product	DOE's action
PTACs and PTHPs	Seek a more stringent standard.
Small, Commercial Packaged Boilers	Reject Standard 90.1–1999 efficiency levels.
Tankless, Gas-Fired IWHs	The Department does not have authority to pursue a standard level higher than those specified in Standard 90.1–1999.
Large, Commercial Packaged Boilers	The Department does not have authority to pursue a standard level higher than those specified in Standard 90.1–1999.
Three-phase ACs and HPs <65,000 Btu/h	Inclined to adopt Addendum f to Standard 90.1–2004 once ASHRAE formally adopts this addendum.

[2] Because of the circumstances described in footnote 1, DOE did not address SPVACs in the screening analysis it originally conducted.

[3] Because of the circumstances described in footnote 1, DOE did not address SPVACs in the screening analysis it originally conducted.

TABLE I.4.—SUMMARY OF DOE'S ACTIONS BY PRODUCT—Continued

Product	DOE's action
SPVUs <65,000 Btu/h	Seeking stakeholder comment on the potential energy savings analysis and the appropriateness of the levels contained in Addendum b to Standard 90.1–2004.

Based on the review, the Department is now inclined to reject the Standard 90.1–1999 levels and leave the EPCA levels in place for small, commercial packaged boilers due to backsliding as further discussed in Section II.B. The Department has also reconsidered its authority to take action to pursue standard levels higher than those specified in Standard 90.1–1999 for tankless, gas-fired IWHs and large, commercial packaged boilers, and has determined that the Department lacks such authority as discussed in Section II.C. The Department is also inclined to seek a more stringent standard level than that in Standard 90.1–1999 for PTACs and PTHPs. The Department is also inclined to adopt the levels in Addendum f of Standard 90.1–2004 for three-phase ACs and HPs <65,000 Btu/h if ASHRAE formally adopts this addendum as an amendment to Standard 90.1. Finally, the Department is deferring a final decision on SPVUs <65,000 Btu/h until ASHRAE takes final action on Addendum b to Standard 90.1–2004. At this time, the Department is seeking stakeholder comments on the potential energy savings analysis and the appropriateness of the standard levels incorporated in Addendum b to Standard 90.1–2004. After considering comments submitted in response to this notice, the Department expects to issue a final rule detailing the Department's final actions for these products.

3. The Energy Policy Act of 2005

On August 8, 2005, EPACT 2005 (Pub. L. 109–58) was signed into law by the President. Section 136(b) of EPACT 2005 amended section 342(a) of EPCA (42 U.S.C. 6313(a)) by inserting energy conservation standards for small (≥65,000 Btu/h to <135,000 Btu/h), large (≥135,000 Btu/h to <240,000 Btu/h), and very large (≥240,00 Btu/h to <760,000 Btu/h) commercial package air conditioners and heat pumps. The standards for small, large and very large commercial package air conditioners and heat pumps in Section 136(b) of EPACT 2005, which amended section 342 of EPCA (42 U.S.C. 6313), implicitly cover SPVUs. However, since the energy conservation standards contained in EPACT 2005 cover SPVUs ≥65,000 Btu/h to <760,000 Btu/h, this notice addresses SPVUs that are <65,000 Btu/h only.

II. Discussion

A Packaged Terminal Air Conditioners and Packaged Terminal Heat Pumps

Section 342(a)(3) of EPCA (42 U.S.C. 6313(a)(3)), and Standard 90.1–1999 set forth energy efficiency standards for PTACs and PTHPs (collectively referred to as PTAC/HPs). The standards vary based on the capacity of the equipment, as set forth in Table II.1.

TABLE II.1.—COMPARISON OF ENERGY EFFICIENCY STANDARDS FOR PTACS AND PTHPS–EPCA AND ASHRAE 90.1–1999

Category	Efficiency levels		
	EPCA	ASHRAE 90.1–1999	
		New construction	Replacement*
Packaged Terminal AC, Cooling Mode	10.0 − (0.16 × EER) Cap/1000) EER**.	12.5 − (0.213 × Cap/1000) EER**.	10.9 − (0.213 × Cap/1000) EER**.
Packaged Terminal HP, Cooling Mode	10.0 − (0.16 × Cap/1000) EER**.	12.3 − (0.213 × Cap/1000) EER**.	10.8 − (0.213 × Cap/1000) EER**.
Packaged Terminal HP, Heating Mode	1.3 + (0.16 × EER) COP†	3.2 − (0.026 × Cap/1000) COP**††.	2.9 − (0.026 × Cap/1000) COP**††.

* Replacement efficiencies apply only to units (1) factory labeled as follows: "Manufactured for replacement applications only; Not to be installed in new construction projects"; and (2) with existing sleeves less than 16 inches high and less than 42 inches wide.

** Cap means the rated cooling capacity of the equipment in Btu/h. If the unit's capacity is less than 7,000 Btu/h, use 7,000 Btu/h in the calculation. If the unit's capacity is greater than 15,000 Btu/h, use 15,000 Btu/h in the calculation.

† EER is the minimum cooling EER.

†† COP is minimum heating COP.

As shown in Table II.1, EPCA prescribes a single formula for computing the minimum cooling efficiency of all PTAC/HPs, and a single formula for computing the minimum heating efficiency of all PTHPs. By contrast, the minimum efficiency levels in Standard 90.1–1999 consist of two sets of formulas. One set is for PTAC/HPs that have sleeves less than 16 inches high and less than 42 inches wide and a specified label indicating they are for replacement use, which Standard 90.1–1999 classifies as ''replacement'' units. The other set is for all other PTAC/HPs, which Standard 90.1–1999 classifies as ''new construction'' units. The formulas result in minimum efficiency levels slightly higher than EPCA levels for ''replacement'' units, and substantially higher for ''new construction'' units. Standard 90.1–1999 also differs from EPCA in that it has slightly different formulas for the cooling modes of PTACs and PTHPs, whereas EPCA prescribes a single formula for both.

The screening analysis estimated the potential energy savings from higher standards for PTAC/HPs operating in the cooling mode. The Department subsequently used these energy savings values in developing the summary chart of potential energy savings in the January 2001 final rule. 66 FR 3343. The potential energy savings from DOE adoption of a PTAC/HP standard at the maximum NPV levels, over and above

savings that would be achieved by the Standard 90.1–1999 levels, totaled 0.561 quads. 66 FR 3343. These values represent the potential savings for all packaged terminal equipment by moving from the ASHRAE ''replacement'' efficiency level to the maximum NPV efficiency level. The Department now believes that these savings are overstated because they implicitly assume that DOE would adopt only a single, minimum standard equal to the ASHRAE ''replacement'' levels for all PTAC/HPs. Since the Department used the ASHRAE ''replacement'' efficiency levels (the lowest minimum levels ASHRAE specified in Standard 90.1–1999 for PTAC/HPs) and not the efficiency levels actually prescribed in Standard 90.1–1999 by product class (i.e., the replacement levels *and* the much higher new construction levels), these potential energy savings are not entirely representative of those that would result from adoption of a higher standard. In other words, the Department believes that adjusting the base case would more accurately reflect the potential energy savings of adopting higher standards than those contained in Standard 90.1–1999.

In the TSD, the Department improved its energy savings estimate for PTAC/HPs by using both product class efficiency levels contained in Standard 90.1. The Department used these levels as a departure point for its revised calculations, along with an estimate of shipments as shown in Chapter 2, Section 2, of the TSD. Consequently, DOE assumed 85 percent of the packaged terminal equipment sold annually would be at the ''new construction'' levels and 15 percent would be at the ''replacement'' levels. Using this assumption, the Department estimated the revised potential cooling-mode energy savings would be 0.103 quads if DOE adopted a standard above Standard 90.1–1999, which is much lower than the estimate of 0.561 in the screening analysis as shown in Section 2.2 of the TSD. The difference in potential energy savings between the revised analysis and the screening analysis can be attributed to using different shipment assumptions, only analyzing the space cooling load for the lodging building category, changing the analysis period to 2008–2030, and calculating the savings based on market weighted shipments as further explained in Section 2.2 of the TSD. The Department also estimated, in its revised calculations, the potential heating-mode energy savings of 0.037 quads that would result from a standard above the levels in Standard 90.1–1999 as shown in Chapter 2 of the TSD. The Department did not account for the potential heating energy savings in the Screening Analysis. Furthermore, the new calculations indicate that the total potential energy savings (both heating mode and cooling mode) resulting from adopting the Standard 90.1–1999 efficiency levels for the two product classes (replacement and new construction), when compared to the current EPCA efficiency levels, would be 0.499 quads. (In effect, much of the energy savings that the screening analysis attributed to moving from the Standard 90.1–1999 levels to the maximum NPV levels, is now attributed in DOE's revised estimate of moving from the EPCA to the Standard 90.1–1999 levels. This occurs because the revised estimate uses as the Standard 90.1–1999 levels, the dual levels in Standard 90.1–1999, whereas the screening analysis used as the Standard 90.1–1999 levels only the relatively low ''replacement'' levels.)

Since the market has changed, in the absence of Federal standards, to efficiency levels at or above the levels in Standard 90.1–1999 for PTACs and PTHPs, the Department is inclined to seek a more stringent standard level for these products. An examination of the January 2003 Air-Conditioning and Refrigeration Institute (ARI) Directory for PTAC/HPs reveals that 52 percent of the listed PTACs are at, or above, the Standard 90.1–1999 efficiency level for new construction equipment, and 98 percent of the listed PTACs are at or above the Standard 90.1–1999 efficiency level for replacement equipment. Furthermore, 72 percent of the listed PTHPs are at or above the Standard 90.1–1999 efficiency level for new construction equipment and 99 percent of the listed PTHPs are at or above the Standard 90.1–1999 efficiency level for replacement equipment. Even though the potential energy savings in the revised analysis has been reduced, the Department believes there is a possibility of clear and convincing evidence, which would warrant further evaluation of more stringent standard levels for PTACs and PTHPs. Therefore, the Department is inclined to seek a more stringent standard level than Standard 90.1–1999 for PTACs and PTHPs through the rulemaking process.

B. Small Commercial Packaged Boilers

EPCA prescribes a minimum combustion efficiency of 80 percent for gas-fired commercial packaged boilers and 83 percent for oil-fired commercial packaged boilers, regardless of capacity, as detailed in Table I.2 in section I.B.1 of this document. Standard 90.1–1999 prescribes for small boilers (≤2.5 million Btu/hr) thermal efficiency levels of 75 percent for gas-fired equipment and 78 percent for oil-fired equipment. In January 2001, when it adopted as Federal standards certain of the efficiency levels in Standard 90.1–1999, the Department stated that it would evaluate whether standard levels higher than those in Standard 90.1–1999 are justified for small commercial packaged boilers. 66 FR at 3336–38, 3349–52. The Department has tentatively concluded that the Standard 90.1–1999 efficiency levels for small commercial packaged boilers are lower than EPCA's existing standards for this equipment. Therefore, the Department is inclined to reject the Standard 90.1–1999 levels for small commercial packaged boilers and leave in place the existing EPCA standards.

The ''combustion efficiency'' descriptor used in EPCA for the efficiency levels for small commercial boilers differs from the ''thermal efficiency'' descriptor used in Standard 90.1–1999. In general, the energy efficiency of a product is a function of the relationship between the product's output of services and its energy input. A boiler's output is measured in large part by the energy content of its output (steam or hot water). Consequently, its efficiency is often viewed as the ratio between its energy output and energy input, with the energy output being calculated as the energy input minus the energy lost in producing the output. A boiler's energy losses consist of energy that escapes through its flue (commonly referred to as flue losses), and of energy that escapes into the area surrounding the boiler (commonly referred to as jacket losses). The ''combustion efficiency'' descriptor in EPCA takes into account only flue losses, and typically is defined as ''100 percent minus percent flue loss.'' The ''thermal efficiency'' descriptor in Standard 90.1–1999 takes into account jacket losses as well as flue losses, and can be considered as combustion efficiency minus jacket loss. Since all boilers will have at least some jacket losses (even if small) and because thermal efficiency takes these losses into account, the thermal efficiency for a particular boiler will always be lower than its combustion efficiency.

It is understood within the industry that there is not a direct mathematical correlation between these two measures of efficiency. The factors that contribute to jacket loss (e.g., the boiler's design and materials) have little or no direct bearing on combustion efficiency. This lack of correlation between combustion efficiency and thermal efficiency

presents some difficulties here. EPCA provides that the Department may not prescribe any amended standard that ''increases the maximum allowable energy use, or decreases the minimum required energy efficiency'' of a product covered under Section 342(a) of the statute, such as packaged boilers. (42 U.S.C. 6313(a)(6)(B)(ii)). Therefore, in evaluating whether to adopt Standard 90.1–1999's thermal efficiency levels of 75 and 78 percent for small gas and oil boilers, respectively, the Department needed to determine whether they decrease the 80 and 83 percent combustion efficiencies required by EPCA for these products. If the percentages for the minimum thermal efficiency levels specified by Standard 90.1–1999 were numerically at, or above, the percentages in EPCA for the corresponding combustion efficiency levels, then clearly the Standard 90.1–1999 levels would not be lower than the EPCA levels. If Standard 90.1–1999's thermal efficiency levels for small commercial boilers were only slightly lower numerically than EPCA's combustion efficiency standards for such equipment, the Standard 90–1–1999 levels probably would also not represent a reduction in minimum efficiency levels. However, because the Standard 90.1–1999 thermal efficiency levels are five percentage points below EPCA's combustion efficiency levels, DOE must address whether the Department's adoption of the Standard 90.1–1999 levels would represent a reduction of existing standards.

To address this issue, the Department reviewed the Institute of Boiler and Radiation Manufacturers (I=B=R) ratings directories for 2005. The I=B=R directory provides efficiency ratings for a majority of the commercial packaged boilers manufactured in the United States. For approximately 62.6 percent of the boilers it listed in 2005, the directory provided both the thermal efficiency and combustion efficiency levels. For a small portion of these boilers (3.2 percent), the ratings appear to be erroneous because the directory lists a thermal efficiency rating that is equal to or greater than its combustion efficiency rating, which is physically impossible.[4] As explained above, thermal efficiency includes the effects of jacket losses whereas combustion efficiency does not. Excluding these boilers, the Department reviewed the thermal and combustion efficiency ratings for the remaining 59.4 percent of the boilers where both ratings are listed in the 2005 I=B=R directory. Among this equipment, small, gas-fired boilers and small, oil-fired boilers had an average thermal efficiency approximately 2.6 percent lower than their combustion efficiency. For small, gas-fired boilers with combustion efficiencies between 80 and 81 percent, the 2005 directory showed an average thermal efficiency of approximately 76.7 percent. For small, oil-fired boilers with a combustion efficiency between 83 and 84 percent, the 2005 directory showed an average thermal efficiency of approximately 81 percent. The Department believes it is reasonable to assume that these relationships between combustion and thermal efficiency exist for small boilers that have combustion efficiencies that minimally comply with EPCA (80 percent and 83 percent for small gas and oil boilers, respectively). Therefore, minimally complying, small, gas-fired boilers would have an average thermal efficiency of about 76.8 percent, and minimally complying, small, oil-fired boilers would have an average thermal efficiency of about 82.1 percent. Standard 90.1–1999's thermal efficiencies of 75 percent for small, gas-fired boilers and 78 percent for small, oil-fired boilers are approximately 1.8 percent and 3.1 percent lower, respectively, than the average thermal efficiencies of boilers that minimally comply with the EPCA energy efficiency standards.

This analysis does not establish directly that the small boiler efficiency levels in Standard 90.1–1999 are lower than those in EPCA. EPCA's combustion efficiency standards for this equipment set maximum amounts of flue losses, but do not regulate jacket losses. As stated earlier, thermal efficiency is a function of both flue losses (i.e., combustion efficiency) and jacket losses. Since these two losses can be independent of one another, in theory, a small boiler could meet or exceed EPCA's applicable combustion efficiency standard, but have sufficiently large jacket losses that cause the thermal efficiency to be lower than the 75 percent (for small, gas-fired boilers) or 78 percent (for small oil-fired boilers) specified in Standard 90.1–1999. Thus, DOE's adoption of Standard 90.1–1999 thermal efficiency levels would not directly decrease the minimum combustion efficiencies required in EPCA for small boilers. However, the Department believes the adoption of the Standard 90.1–1999 thermal efficiency levels for small boilers would have the effect of lowering minimum combustion efficiency levels required by EPCA by allowing increased energy consumption.

At present, the thermal efficiency of a small commercial boiler is a function of (1) the manufacturer's compliance with the applicable EPCA combustion efficiency standard and (2) decisions it makes independent of EPCA concerning the boiler's design, materials, and other features that affect jacket losses. For the small boilers for which the I=B=R directory lists both thermal and combustion efficiencies, these decisions by manufacturers have resulted in production of (1) no gas-fired boiler with a thermal efficiency below 75.4 percent, (2) gas boilers with a combustion efficiency between 80 and 81 percent that have thermal efficiencies averaging approximately 76.7 percent, (3) no oil-fired boiler with a thermal efficiency below 75.6, and (4) oil boilers with a combustion efficiency between 83 and 84 percent that have thermal efficiencies averaging approximately 81 percent. Although EPCA does not regulate jacket losses, for both small, gas- and oil-fired commercial packaged boilers with relatively low combustion efficiencies, manufacturers have restricted jacket losses to levels that have kept thermal efficiencies within an average of 2.6 percentage points below their combustion efficiencies. The Department does not believe its adoption of Standard 90.1–1999's thermal efficiency levels for small commercial boilers would result in manufacturers' increasing the amount of jacket losses for this equipment. No reason is readily apparent as to why manufacturers would alter their current practices, and make equipment that has greater jacket losses, even if mandatory thermal efficiency levels were set below the levels that equipment currently achieves. However, setting thermal efficiency standards at levels lower than the thermal efficiencies of existing equipment could result in equipment with lower combustion efficiencies. This allows for the possibility of equipment having lower efficiencies than permitted by EPCA, meaning that the current minimum (required) efficiency would be decreased.

For these reasons, it appears to the Department that EPCA precludes it from prescribing as amended Federal standards the Standard 90.1–1999's thermal efficiency levels (one for gas-fired and the other for oil-fired equipment) for small commercial packaged boilers, because each would decrease the minimum required efficiency of this equipment. (42 U.S.C. 6313(a)(6)(B)(ii))

[4] These anomalous ratings are likely due to Hydronics Institutes's (HI) de-rating procedures, manufacturers' interpolation of results, varying test chambers and instrument calibration among manufacturers, or submittal of erroneous ratings. For more details, please see Chapter 3 of the TSD.

For small commercial gas-fired boilers, the screening analysis estimated that, in comparison with Standard 90.1–1999's minimum thermal efficiency level of 75 percent, 0.2 quads of energy would be saved by requiring a thermal efficiency of at least 78.7 percent, the standard level that corresponds to the lowest average life-cycle cost and highest NPV for this equipment as shown in Chapter 3 of the TSD. The estimate of 0.2 quads of energy savings assumes that the thermal efficiency of all small, gas-fired boilers shipped would increase from the Standard 90.1–1999 minimum of 75 percent to 78.7 percent. The Department's review of the I=B=R directories for 2005, however, indicates that a number of small, gas-fired commercial boilers with thermal efficiencies above 75 percent are already on the market. For example, among small, gas-fired boilers for which the directory included both thermal and combustion efficiency ratings, the lowest thermal efficiency is 75.4 percent, and the average thermal efficiency is 79.7 percent. Thus, since many small, gas-fired boilers are being sold with thermal efficiencies greater than 75 percent, less than 0.2 quads of energy would be saved if DOE adopted a standard of 78.7 percent thermal efficiency instead of 75 percent. The Department cannot estimate precisely how much energy a new standard would save, since it does not know the quantities of boilers being sold at particular efficiency levels. Clearly, however, the savings would be less than the potential savings shown in the screening analysis.

For small, oil-fired commercial boilers, the screening analysis did not evaluate potential energy savings from a Federal standard in excess of Standard 90.1–1999's minimum thermal efficiency level of 78 percent. As explained in Chapter 3 of the TSD, certain equipment (e.g., oil-fired commercial boilers) was not specifically analyzed because there was insufficient data describing baseline energy consumption, a small market for these products, a lack of product shipment data, or an absence of a suitable methodology to distinguish its heating function. However, the Department's review of the I=B=R directory for 2005 indicates that a number of small, oil-fired commercial boilers already on the market have thermal efficiencies above 78 percent. For small, oil-fired commercial boilers, for which the directory included both thermal and combustion efficiency ratings, the lowest thermal efficiency in 2005 is 75.6 percent and the average thermal efficiency is 82.3 percent. For models with a combustion efficiency between 83 and 84 percent, which slightly exceeds the EPCA standard, the average thermal efficiency in 2005 was 81.0 percent. The screening analysis did not evaluate small, oil-fired commercial boilers, but the Department understands that their market share is much smaller than the market share for the small, gas-fired commercial boilers. Consequently, the Department believes that the potential energy savings from a standard higher than that specified in EPCA and Standard 90.1–1999 is much smaller for small, oil-fired commercial boilers than the potential 0.2 quads of energy savings for the small, gas-fired commercial boilers.

Nonetheless, the Department believes the thermal efficiency metric provides a sound method for measuring the efficiency of commercial boilers because it is more inclusive and better reflects the total energy losses in the equipment than the combustion efficiency metric prescribed by EPCA, and is more consistent with the Act's definition of ''energy efficiency'' for commercial equipment.[5] If ASHRAE were to adopt for small boilers new thermal efficiency levels that maintain or increase EPCA's existing standard levels, the Department would give them careful consideration, and would be favorably inclined toward adopting levels, such as those indicated in the screening analysis, that would represent the lowest LCC and highest NPV for this equipment. See Chapter 3 of the TSD. However, the Department cannot adopt any amended thermal efficiency standard for commercial packaged boilers that would entail lowering the minimum required efficiency level for this equipment. The Department is inclined to leave in place the existing EPCA standards for the small commercial packaged boilers.

C. Large Commercial Packaged Boilers and Tankless, Gas-Fired Instantaneous Water Heaters

EPCA specifies minimum energy efficiency levels for certain categories of commercial equipment including tankless, gas-fired instantaneous water heaters (IWHs) and large commercial packaged boilers. (42 U.S.C. 6313(a)(1)-(5)) These types of equipment are also covered by ASHRAE/IES Standard 90.1, and the efficiency requirements in EPCA correspond with the Standard 90.1 levels in effect on October 24, 1992.

EPCA provides that, ''If ASHRAE/IES Standard 90.1, as in effect on October 24, 1992, is amended with respect to any * * * packaged boilers, storage water heaters, instantaneous water heaters, or unfired hot water storage tanks, the Secretary shall establish an amended uniform national standard for that product at the minimum level for each effective date specified in the amended ASHRAE/IES Standard 90.1, unless the Secretary determines, by rule published in the **Federal Register** and supported by clear and convincing evidence, that adoption of a uniform national standard more stringent than such amended ASHRAE/IES Standard 90.1 for such product would result in significant additional conservation of energy and is technologically feasible and economically justified.'' (42 U.S.C. 6313(a)(6)(A))

ASHRAE revised Standard 90.1 on October 29, 1999. It changed Standard 90.1's minimum efficiency levels for some products but not for others. Of the equipment for which if left levels at their preexisting values, ASHRAE evaluated whether to increase some of the levels, while deferring consideration of other levels. For tankless IWHs and large, commercial packaged boilers, ASHRAE left the pre-existing levels in place after considering whether to change them. Thus, Standard 90.1–1999 values for this equipment are the same as the EPCA standards.

In response to ASHRAE's actions, the Department issued a notice of preliminary screening analysis on March 1, 2000. 65 FR 10984. In this document the Department stated that it expected to pursue, one of four courses of action for each commercial equipment category covered by Standard 90.1–1999:

1. Adopt the Standard 90.1–1999 efficiency level as a uniform national standard;

2. Reject the Standard 90.1–1999 efficiency level if it increases maximum allowable energy use or decreases minimum required efficiency;

3. Propose consideration of an addendum to Standard 90.1–1999 if ASHRAE did not consider a more efficient level, and a more efficient level appears warranted; or

4. Propose consideration of an addendum to Standard 90.1–1999 and undertake a more thorough evaluation to determine whether a rulemaking is justified, if ASHRAE considered amending or amended the standard, and a more efficient level appears warranted than is contained in ASHRAE/IES Standard 90.1–1999.

On May 15, 2000, the Department issued a notice of document availability

[5] For commercial equipment, '' 'energy efficiency' means the ratio of the useful output of services from an article of industrial equipment to the energy use by such article, determined in accordance with test procedures under section 6314 of this title.'' (42 U.S.C. 6311(3))

and public workshop announcing the preliminary conclusions of the screening analysis. 65 FR 30934. The Department announced in this notice its inclination to propose that ASHRAE consider an addendum to Standard 90.1–1999, based on the screening analysis, and to undertake a more thorough evaluation to determine whether a rulemaking was justified under the terms of EPCA. On January 12, 2001, the Department published a final rule adopting Standard 90.1–1999 standard levels for certain commercial equipment, and stated it was considering whether more stringent standards are justified for other equipment, including IWHs and large commercial packaged boilers. 66 FR 3336.

In these three notices, the Department indicated its belief that it had the authority to consider more stringent standard levels for tankless IWHs and large, commercial packaged boilers because ASHRAE had considered adopting more stringent levels for these types of equipment, even though ASHRAE had not changed the Standard 90.1 levels for such equipment. The Department did not receive any comments in response to either the May 15, 2000, notice or the January 12, 2001, final rule concerning its view that it had this authority. However, in preparing today's notice, DOE reexamined its authority under EPCA to amend standards for tankless IWHs and large commercial boilers and has concluded its earlier view was in error. As quoted at greater length above, EPCA states that, if an efficiency level in Standard 90.1 ''is amended,'' then DOE may (under certain circumstances) adopt a standard more stringent than the ''amended'' level in Standard 90.1. The Department now believes that this language authorizes it to adopt a more stringent standard than the level(s) in Standard 90.1 only in response to a change in such level(s) by ASHRAE. Thus, DOE believes ASHRAE must change the Standard 90.1 efficiency level(s) for a type of equipment to trigger DOE authority to pursue a rulemaking to consider more stringent standards for that equipment. Since ASHRAE did not change the existing efficiency levels in Standard 90.1 for tankless, gas-fired IWHs and large commercial packaged boilers when it adopted Standard 90.1–1999, the adoption of Standard 90.1–1999 appears not to authorize DOE to pursue higher standards for these types of equipment. The Department now believes that ASHRAE must, instead, take further action and adopt new standard levels for such equipment in order for DOE to consider more stringent levels for these products. In consideration of the above, if ASHRAE considers an addendum to Standard 90.1 for these products, DOE will encourage it to consider the details of the screening analysis.

D. Three-Phase Air Conditioners and Heat Pumps <65,000 Btu/h

Energy-efficiency levels for single-package three-phase ACs and HPs <65,000 Btu/h are set forth in EPCA at a seasonal energy efficiency ratio (SEER) level of 9.7 for cooling (42 U.S.C. 6313(a)(1)(B)) and a heating seasonal performance factor (HSPF) level of 6.6 for heating (42 U.S.C. 6313(a)(1)(E)) (see Table II.2). Energy-efficiency levels for split-system three-phase HPs <65,000 Btu/h are 10.0 SEER for cooling (42 U.S.C. 6313(a)(1)(A)) and 6.8 HSPF for heating (42 U.S.C. 6313(a)(1)(D)). These efficiency levels are the same as those in Standard 90.1–1989. During the development of Standard 90.1–1999, ASHRAE explicitly chose not to revise standards for air-cooled three-phase ACs and HPs <65,000 Btu/h. This decision was based on the close relationship the design of this equipment has to residential, single-phase air-cooled ACs and HPs <65,000 Btu/h, whose efficiency is regulated under section 325 of EPCA (42 U.S.C. 6295), and which at that time were the subject of a pending DOE rulemaking for the development of new efficiency standards.[6] Subsequently, in the January 12, 2001, final rule (66 FR 3336), DOE indicated that it would take no action on three-phase ACs and HPs since ASHRAE took no action. As a result, the EPCA energy-efficiency levels for this equipment remained unchanged.

On January 22, 2001, the Department published a final rule setting a 13 SEER and 7.7 HSPF standard for residential central air conditioners and heat pumps, both single-package and split-system (the ''13 SEER rule''). 66 FR 71799. ARI requested judicial review of this rule by the U.S. Court of Appeals for the 4th Circuit. Subsequently, on May 23, 2002, DOE withdrew the 13 SEER rule, and set the efficiency standards for residential, single-phase air-cooled air conditioners and heat pumps at a SEER rating of 12.0 and an HSPF rating of 7.4 (the ''12 SEER rule''). 67 FR 36368. In June of 2002, ARI proposed to ASHRAE an addendum to Standard 90.1, Addendum i to Standard 90.1–2001, which contained minimum efficiency levels of 12 SEER/7.4 HSPF for the three-phase commercial air-conditioning equipment <65,000 Btu/h, and an effective date in 2006. ASHRAE adopted Addendum i on July 3, 2003, to align the efficiency standards for this equipment with DOE's standards for residential central air conditioners and heat pumps <65,000 Btu/h. ANSI approved Addendum i on August 6, 2003.

In the meantime, the Natural Resources Defense Council had requested judicial review of the 12 SEER rule in the U.S. Court of Appeals for the 2nd Circuit. *Natural Resources Defense Council, et al.* v. *Abraham,* 355 F.3d 179 (2nd Cir. 2004). On January 13, 2004, the court ruled that DOE, in adopting the 12 SEER rule, had failed to effect a valid amendment of the original standard (13 SEER) effective date, and was prohibited from amending these standards downward. 355 F.3d 179. Shortly after this ruling, ARI withdrew its appeal of the 13 SEER rule. On August 17, 2004, DOE published a technical amendment in the **Federal Register** to re-publish the 13 SEER standard for residential central air conditioners and heat pumps. 69 FR 50997.

Nevertheless, even though the 13 SEER standard now clearly applies to residential ACs and HPs <65,000 Btu/h, for three-phase equipment of this type the 12 SEER efficiency level in Addendum i to Standard 90.1–2001 requires action. EPCA states that DOE must adopt as a Federal standard any efficiency level specified in an amendment to Standard 90.1 unless it shows through clear and convincing evidence that a more stringent standard, that is technologically feasible and economically justified, would produce significant additional energy savings. (42 U.S.C. 6313(a)(6)(A)) EPCA also bars DOE from adopting any standard that would increase the maximum allowable energy use or decrease the minimum required efficiency for a product. (42 U.S.C. 6313(a)(6)(B)(ii)) Therefore, at this point, EPCA requires that DOE either adopt the efficiency levels in Addendum i to Standard 90.1–2001, to increase the minimum energy efficiency level for three-phase air-conditioning units from the 10 SEER level established by EPCA to a 12 SEER level, or pursue a rulemaking to explore adoption of a higher-energy efficiency level.

ASHRAE is now considering, however, adoption of the 13 SEER level for this equipment. Specifically, under its process for continuous maintenance of Standard 90.1, ASHRAE has completed public review of a proposed addendum to Standard 90.1 (Addendum f to Standard 90.1–2004) that would incorporate 13 SEER and 7.7 HSPF

[6] Addendum i to American National Standards Institute (ANSI)/ASHRAE/IESNA Standard 90.1–2001, Pg.2.

levels for three-phase ACs and HPs <65,000 Btu/h. Under ASHRAE's process, if the ASHRAE Standards Committee and ASHRAE Board approve this addendum during the 2006 ASHRAE winter meeting, it would then go to ANSI for approval, and its official adoption and publication would likely occur in the spring of 2006. Table II.2 summarizes the minimum energy-efficiency standards for three-phase air-conditioning units and heat pumps <65,000 Btu/h as specified by EPCA, Standard 90.1–1999, Addendum i to Standard 90.1–2001, and Addendum f to Standard 90.1–2004.

TABLE II.2.—COMPARISON OF ENERGY EFFICIENCY LEVELS FOR THREE-PHASE ACS AND HPS

Category	Efficiency levels (SEER and HSPF)							
	EPCA		Standard 90.1–1999		Addendum i to standard 90.1–2001		Addendum f to standard 90.1–2004	
	Cooling (SEER)	Heating (HSPF)	Cooling (SEER)	Heating (HSPF)	Cooling (SEER)	Heating (HSPF)	Cooling (SEER)	Heating (HSPF)
3-Phase Single-Package AC	9.7	NA	9.7	NA	12.0	NA	13.0	NA
3-Phase Single-Package HP	9.7	6.6	9.7	6.6	12.0	7.4	13.0	7.7
3-Phase Split-System AC	10.0	NA	10.0	NA	12.0	NA	13.0	NA
3-Phase Split-System HP	10.0	6.8	10.0	6.8	12.0	7.4	13.0	7.7

At this time the Department has decided to postpone action on ASHRAE's Addendum i to Standard 90.1–2001 because the Addendum f to Standard 90.1–2004 is currently pending before ASHRAE and its adoption by ASHRAE would supercede Addendum i. The Department intends to take action once ASHRAE has completed consideration of Addendum f. If ASHRAE approves this addendum, DOE anticipates that it will adopt as Federal standards the efficiency levels in the addendum (13 SEER/7.7 HSPF). The Department is following this approach largely to achieve the original intent of ASHRAE and DOE to align the energy-efficiency standards for the three-phase equipment with the standards for residential, single-phase, air-cooled ACs and HPs that currently have to meet a 13 SEER/7.7 HSPF federal energy efficiency standard as of January 23, 2006. In addition, the screening analysis estimated that 12 SEER was the efficiency level for three-phase ACs and HPs <65,000 Btu/h where the lowest LCC occurs. 65 FR 30929. Therefore, the Department considers it unlikely that clear and convincing evidence exists, as required by EPCA, 42 U.S.C. 6313(a)(6)(A), that a standard higher than the 13 SEER level in Addendum f would save significant additional amounts of energy, and also be economically justified and technologically feasible.

E. Single-Package Vertical Air Conditioners and Single-Package Vertical Heat Pumps <65,000 Btu/h

1. Background

In 2002, ASHRAE approved Addendum d to Standard 90.1–2001. Addendum d originated as an ARI continuous-maintenance proposal to ASHRAE, and was intended to establish SPVACs and SPVHPs as new categories of commercial HVAC equipment. It specified ARI Standard 390–2001 as the test procedure for SPVU products and provided minimum efficiency levels specifically for this equipment.[7] Prior to ASHRAE's approval of Addendum d, DOE had indicated that SPVUs were covered by EPCA as commercial equipment. 65 FR 59589, 59610 (October 5, 2000). Therefore, under EPCA, publication of Addendum d triggered a review by DOE to determine if it should adopt as Federal requirements the addendum's amendments to Standard 90.1. (42 U.S.C. 6313(a)(6))

The Department examined Addendum d and determined that it could not adopt as Federal requirements the standards and test procedures in the addendum for the following reasons: (1) Taking into account the ''Exclusions'' in the Scope section of ARI Standard 390–2001, the Addendum appears to prescribe requirements for few if any of the products covered by EPCA. Neither Addendum d nor any other provision of Standard 90.1 defines or describes SPVUs; (2) Assuming Addendum d did prescribe standards and test procedures for SPVUs covered by EPCA, the addendum did not clearly delineate SPVUs according to the statutory scheme set forth in EPCA, and disregarded EPCA's definitions and classifications for commercial air-conditioning equipment; and (3) To the extent it addressed equipment covered by EPCA, the addendum appeared to contain efficiency levels for some categories of equipment that are lower than the minimum efficiency standards currently required under EPCA (DOE, No. 7 at pp. 1–7).

In response to DOE's objections, ARI revised ARI Standard 390 and prepared and submitted to ASHRAE a new continuous-maintenance proposal to correct the deficiencies DOE had identified in Addendum d. ARI developed these documents in consultation with DOE. ASHRAE accepted the continuous-maintenance proposal, and largely incorporated its contents into proposed Addendum b to Standard 90.1–2004.[8] At this point, ASHRAE has completed its public review process of Addendum b and is in the final stages of considering whether to approve the addendum. The Department's understanding, based on discussions with ASHRAE staff, is that ASHRAE could approve Addendum b as an amendment to Standard 90.1 as early as the end of 2005.

In Addendum b, ARI redefined both SPVACs and SPVHPs as encased air-cooled small or large commercial package air-conditioning and heating equipment. Additionally, it created SPVU categories corresponding to the equipment categories in EPCA. As a result of revisions made to ARI Standard 390, any standards and test procedures ASHRAE prescribed for SPVU equipment would apply to equipment covered by EPCA, and not overlap with EPCA definitions of PTACs and PTHPs. To correct the efficiency level, ARI proposed a revised set of standards for

[7] Air-Conditioning and Refrigeration Institute, Performance Rating of Single-Package Vertical Air-Conditioners and Heat Pumps—Standard 390, 2001.

[8] Public Review Draft of Proposed Addendum b to Standard 90.1–2004, Energy Standard for Buildings Except Low-Rise Residential Buildings, Nov. 2004.

three categories of equipment size: <65,000 Btu/h, ≥65,000 but <135,000 Btu/h, and ≥135,000 but <240,000 Btu/h. These revised standards utilized energy efficiency ratio (EER) and coefficient of performance (COP) descriptors to provide SPVU efficiency levels in a manner consistent with other commercial equipment, eliminating the use of the common residential central ACs and HPs descriptors of SEER and HSPF for SPVUs.

The Department responded favorably to a majority of ARI's revisions, but continued to voice concern regarding the test procedures and minimum efficiency standards proposed for SPVUs <65,000 Btu/h (DOE, No. 11 at pp. 1–6). The SEER/HSPF metrics include additional performance factors such as the changes in performance associated with changes in various ambient conditions and cycling losses. Consequently, the SEER/HSPF metrics require more complicated test procedures than the EER/COP metrics and could potentially allow equipment rated with only the EER/COP metrics to be less efficient. Despite these differences, DOE agreed that ARI's EER standards provided roughly the same level of efficiency as the SEER standards for existing equipment (DOE, No. 11 at pp. 1–6). The Department's main concern revolved around ARI's COP level for three-phase SPVUs below 65,000 Btu/h. The Department recognized that one of the factors absent from the COP metric was an assessment of the energy used to provide electric resistance backup heat. Electric resistance backup heat is needed to meet the heating load at low temperatures and provides space heating during periods when the heat pump acts to defrost the outdoor coil. This would potentially allow a SPVHP subject to the ARI COP standard to have a lower overall efficiency (net space heating output over electrical input) than is currently required.

The Department provided a single comment to ASHRAE during the public review on Addendum b to Standard 90.1–2004, indicating that, while Addendum b addressed many of the issues the Department had identified, the Department continued to have concerns regarding the change in descriptors from SEER to EER and HSPF to COP (DOE, No. 16 at pp. 1–2).

Even though Addendum b contained recommended efficiency levels for SPVUs <65,000 Btu/h, EPACT 2005 supercedes Addendum b requirements for these products. The signing of EPACT 2005 by the President divided SPVUs into two categories: those products with capacities <65,000 Btu/h and those products with capacities ≥65,000 Btu/h but <760,000 Btu/h. The Department will continue its evaluation of products with capacities <65,000 Btu/h, which are the subject of this notice. However, the SPVUs with capacities ≥65,000 Btu/h but <760,000 Btu/h are covered under the standards specified by EPACT 2005 and are not included in today's notice.

2. Analysis of Proposed Efficiency Levels

Table II.3 shows the existing and proposed efficiency levels for SPVAC and SPVHP equipment. The statute requires that the Secretary may not prescribe any amended standard which increases maximum allowable energy use, or decreases the minimum required energy efficiency, of a covered product. (42 U.S.C. 6313(a)(6)(B)(ii)) The Department has therefore reviewed the ARI data for SPVAC and SPVHP with cooling capacity <65,000 Btu/h and believes that the EER levels provided in Addendum b are equivalent to or higher than the current SEER efficiencies in EPCA (ARI, No. 9 at pp. 1–4 and 10–26).

TABLE II.3.—EXISTING AND PROPOSED EFFICIENCY STANDARD LEVELS FOR SPVAC AND SPVHP WITH COOLING CAPACITY <65 KBTU/H

Category	EPCA	Addendum d to standard 90.1–2001	Addendum b to standard 90.1–2004
SPVAC (Cooling):			
Single Phase	None	None	9.0 EER.
Three Phase	9.7 SEER	8.9 EER	9.0 EER.
SPVHP (Cooling):			
Single Phase	None	None	9.0 EER.
Three Phase	9.7 SEER	8.9 EER	9.0 EER.
SPVHP (Heating):			
Single Phase	None	None	3.0 COP.
Three Phase	6.6 HSPF	2.7 COP	3.0 COP.

The Department examined existing efficiency data for SPVAC equipment with cooling capacity <65,000 Btu/hr where the SEER rating was used (ARI, No. 9 at pp. 1–4, 24, and 25). It identified only one minimally compliant (9.7 SEER) product. However, DOE examined 11 near-minimally compliant models at the next highest efficiency level, 10 SEER. From this analysis, the Department determined the average EER rating was 0.8 points below the SEER ratings for this near-minimally compliant equipment. Thus, DOE believes that an EER rating of 8.9, 0.8 points below the minimum SEER rating of 9.7 that EPCA currently requires for three-phase SPVUs with cooling capacity <65,000 Btu/h, is equivalent to that minimum rating.

As discussed in Chapter 5 of the TSD, the Department also carried out a separate analysis of the ratio between EER and SEER minimally compliant equipment, and the results were similar. Both the differential analysis and the ratio analysis reinforce the conclusion that a 9.7 SEER efficiency level is equivalent to an 8.9 EER level for SPVACs with cooling capacity <65,000 Btu/h. The Department believes, therefore, that the proposed 9.0 EER level in Addendum b exceeds the existing EPCA levels.

DOE identified no minimally compliant (9.7 SEER) SPVHP equipment with a cooling capacity <65,000 Btu/h. However, DOE identified 14 near-minimally compliant models at 10.0 SEER. The average EER for this equipment was 9.1, 0.9 points below the SEER ratings for the equipment as detailed in Chapter 5 of the TSD. Thus, an EER rating of 8.8, 0.9 below the EPCA minimum of 9.7 SEER for this equipment, appears to be equivalent to that minimum rating. The proposed level of 9.0 EER in ASHRAE's Addendum b is clearly above this.

The Department's analysis of HSPF data for SPVHP equipment with cooling capacity <65,000 Btu/h indicated that there were 26 products on the market with a minimally compliant HSPF of 6.6 as shown in Chapter 5 of the TSD. The

minimum COP for these products was 2.7 and the average COP was 2.9. The Department believes that there is a remaining issue concerning the COP metric, but also believes that there are reasons to suggest this issue may be outweighed by the adoption of the 3.0 COP efficiency level proposed in Addendum b, as detailed below and in Chapter 5 of the TSD.

3. Standard 90.1–2004 Addendum b

For SPVHP efficiencies, Addendum b still does not address DOE's remaining concern about the inability of the COP metric to account for backup electric heating and the energy used during the defrost cycle. The single, high-temperature COP rating at 47 °F is less comprehensive than the HSPF metric. COP does not provide an indication of the efficiency of operation at low temperatures (e.g., like the 17 °F COP that is used in the HSPF test procedure) and does not include electric resistance energy use. Electric resistance heating energy is used to augment the heat pump output during periods when the space heating load exceeds the ability of the heat pump compressor to provide heat during reverse-cycle operation. Electric resistance heating energy is also used to provide continued space heating to the building when the heat pump is in its defrost mode.

The HSPF test procedure provides a standard methodology for estimating the energy consumption for electric resistance heat. In practice, the electric resistance heat can use a significant portion of the total energy consumption of a heat pump. However, the amount of energy used by electric resistance heat is a function of the heating space load, the installed capacity of the heat pump, and the relative heating capacity at different outside air conditions. The heating space load and equipment sizing are effectively defined for the HSPF test conditions, making the electric backup estimate a function of the capacity at low temperature relative to nominal capacity. Changes in this ratio are reflected in the HSPF test procedure and rating, but not in the COP rating.

Another concern is that the estimated backup heat calculated and included in the HSPF metric was developed assuming a typical residential heat pump application. However, commercial building operations are often substantially different from residential building operations. A common application of an SPVHP is in a modular school classroom (similar to a manufactured home in construction, but with a different occupancy and use). In that application, the heat pump is typically scheduled to be off during the building's unoccupied hours or is left in a setback mode of operation similar to that in a residential home during early morning hours. During the daytime, occupied period of the modular school classroom, the space is actively ventilated (increasing the heating load) and subject to increased internal gains (decreasing the heating load) as compared to the space in a residence. Since the heating load profiles used in the HSPF calculations are more representative of residential applications, these heating load profiles are not reflective of typical SPVHP applications.

Furthermore, the accuracy of the HSPF metric in measuring the energy consumption of equipment in commercial applications is a concern because the method used in sizing the SPVHP for commercial applications is significantly different than the method for residential applications. The amount of backup electric resistance heat provided to the conditioned space is a function of the reverse-cycle heating capacity of the heat pump (relative to the space load) at different operating temperatures. The reverse-cycle heating capacity of a heat pump is strongly correlated with the cooling capacity of the heat pump. However, in a commercial application, the internal thermal loads and ventilation loads during the day make sizing a heat pump for cooling a given area of floor space significantly different compared to a residential application. Furthermore, the ratio of cooling capacity to heating capacity from a properly sized unit in a commercial application can be quite different than that in a residential application.

While the Department mentions these issues as concerns, there are also reasons to believe that they may be outweighed by the adoption of the 3.0 COP being proposed by ARI for SPVHP equipment <65,000 Btu/h. With regard to the operation of defrost mode, there is no evidence to suggest that, in comparison with the operation of existing baseline equipment, the energy consumed by equipment that complies with ARI's proposal during defrost operation would be substantially greater. Manufacturers have designed and adopted standard defrost strategies, and there is no evidence that they would adopt less efficient defrost strategies in the future under ARI's proposal. Therefore, the Department does not believe there will be an increase in energy consumption from the impact of these strategies not being accounted for in the COP test procedure. See Chapter 5 of the TSD for more details. Therefore, the Department believes the 3.0 COP being proposed by ARI for SPVHP equipment <65,000 Btu/h does not constitute a lowering of the standard nor does it allow an increase in energy consumption.

With regard to backup electric resistance heating in current equipment, the control of backup resistance heat is primarily a function of the thermostat control design for the conditioned space. Sometimes the amount of backup electric heat is not controlled by the heat pump itself, but by the wiring of the thermostat. In practical application, it is possible to wire a thermostat to the heat pump controller on most heat pumps such that the ''backup'' heat operates as a primary heat source or in parallel with the reverse-cycle heating at all times. While the previous scenario is possible, in most, typical applications, a two-stage heating thermostat is used, where the second stage, controlling the electric resistance heating, does not engage if the heat pump capacity is sufficient to meet the space load. The HSPF metric, as measured using the DOE test procedure does not measure backup heat, but estimates it based on a theoretically calculated residential space heating load and assumes that such heating only augments the reverse-cycle heating. In light of the reasons above, the Department believes that COP is a more appropriate metric for SPVHPs.

The Department notes that the final definitions for SPVHP in Addendum b of Standard 90.1–2004 did not precisely match the referenced test procedure (ARI Standard 390–2003) included in that addendum.[9] The definitions section of Addendum b defined a SPVHP as ''a single-package vertical air conditioner capable of using the refrigeration system in a reverse cycle or heat pump mode to provide heat.'' Section 3 of ARI Standard 390–2003 defined a SPVHP as a ''SPVAC that utilizes reverse cycle refrigeration as its primary heat source, with secondary supplemental heating by means of electrical resistance, steam, hot water or gas.'' While the Addendum b definition does not make it clear that reverse-cycle refrigeration is the primary heat source, DOE believes this is necessary in order to maintain the efficiency of these products. However, as the referenced test procedure requires a SPVHP to use reverse-cycle refrigeration as the primary heat source (and as section 6.4.3.4 of Standard 90.1–2004 effectively provides for this by not allowing the use of supplemental

[9] Air-Conditioning and Refrigeration Institute, Performance Rating of Single-Package Vertical Air-Conditioners and Heat Pumps—Standard 390, 2003.

electric resistance heaters for these products when the heat pump alone can meet the load), DOE considers the definition in the ARI Standard 390 test procedure as the operative definition for this rulemaking.

The Department also notes that current model building codes used in the United States (Standard 90.1–1999 and later versions as well as the International Energy Conservation Code), contain language that requires heat pumps to have controls that prevent the use of supplementary resistance heating (except during defrost cycles). Standard 90.1–1999 allows an exception to this requirement for equipment where the rating includes resistance heat in the product's overall efficiency rating (such as HSPF). The Department does not see evidence of a market for commercial heat pump equipment designed to utilize electric resistance heat in parallel with reverse-cycle heating.

4. Potential Energy Savings and Conclusions

Even though SPVUs were not part of the original screening analysis, the Department examined the potential energy savings for efficiency levels higher than those in Addendum b to Standard 90.1–4 for SPVU equipment. The Department developed an estimate of the unit energy savings for SPVUs based on the analysis of energy consumption performed for the commercial unitary air-conditioning equipment. The Department approximated the load patterns by assuming SPVUs are used solely in education building applications (e.g., mobile classrooms) and the relative operating hours of a fan and condenser in an SPVU are similar to a commercial unitary air conditioner used for the same application. However, the Department also recognizes that the fan in an SPVU is smaller than the typical fan in a rooftop unit on a horsepower-per-ton-cooling-capacity basis. To account for these differences, the Department approximated the fan power consumption for a baseline SPVU by assuming a one-third horsepower blower and a 65 percent motor efficiency, which in turn corresponds to a power draw of 0.38 kW. After accounting for the change in fan energy consumption, DOE estimated the resulting total cooling and fan energy consumption for SPVUs used in mobile classroom buildings in terms of annual kWh/ton at each EER level analyzed.

The Department based the calculation of national energy consumption for a standard level on the annual energy consumption for all the products shipped for each year being studied. The number of shipments was based on data collected by the Department in 2005 from ARI. The resulting cooling and fan energy consumption estimates for all SPVACs and SPVHPs for the study period from 2010 to 2037 are displayed in Chapter 5 of the TSD. Chapter 5 of the TSD also provides details of the potential energy savings estimates. The Department estimates the potential energy savings in going from a minimum standard of 9.0 EER to a 10.9 EER standard to be 0.161 quads for cooling and fan energy consumption. The Department did not make a separate, detailed calculation for the potential energy savings from improving heating COP for SPVHP products. The Department expects the additional potential energy savings for heat pumps would be unlikely to increase the energy savings estimate shown above by more than 20 percent, due to the relatively small market volume for SPVHP equipment (31 percent of total shipments of SPVUs) and smaller potential improvement in heating COP compared with cooling EER.

As stated previously, the Department recognizes there is work being done by ASHRAE to finalize Addendum b to Standard 90.1–2004. The Department has determined that it is not able to take action on Addendum b to Standard 90.1–2004 for SPVAC and SPVHP equipment <65,000 Btu/h and has deferred a decision at this time. However, the Department invites stakeholder comments on the potential energy savings estimates for SPVU products <65,000 Btu/h. In addition, the Department also invites comments on the appropriateness of the efficiency levels for SPVUs <65,000 Btu/h contained in Addendum b of Standard 90.1–2004 for adoption by the Department as federal standards.

III. Public Participation

A. Submission of Comments

The Department will accept comments, data, and information regarding this notice no later than the date provided at the beginning of the notice. Please submit comments, data, and information electronically. Send them to the following e-mail address: *Brenda.Edwards-Jones@ee.doe.gov.* Submit electronic comments in WordPerfect, Microsoft Word, PDF, or text (ASCII) file format and avoid the use of special characters or any form of encryption. Comments in electronic format should be identified by the docket numbers EE–RM/STD–03–100, EE–RM/STD–03–200, and EE–RM/STD–03–300, and/or RIN numbers 1904–AB16, 1904–AB17, and 1904–AB44 and wherever possible carry the electronic signature of the author. Absent an electronic signature, comments submitted electronically must be followed and authenticated by submitting the signed original paper document. No telefacsimiles (faxes) will be accepted.

According to 10 CFR 1004.11, any person submitting information that he or she believes to be confidential and exempt by law from public disclosure should submit two copies: One copy of the document including all the information believed to be confidential, and one copy of the document with the information believed to be confidential deleted. The Department of Energy will make its own determination about the confidential status of the information and treat it according to its determination.

Factors of interest to the Department when evaluating requests to treat submitted information as confidential include: (1) A description of the items; (2) whether and why such items are customarily treated as confidential within the industry; (3) whether the information is generally known by or available from other sources; (4) whether the information has previously been made available to others without obligation concerning its confidentiality; (5) an explanation of the competitive injury to the submitting person which would result from public disclosure; (6) when such information might lose its confidential character due to the passage of time; and (7) why disclosure of the information would be contrary to the public interest.

B. Issues on Which DOE Seeks Comment

The Department is interested in receiving comments on all aspects of this notice. The Department especially invites comments and views of interested parties concerning (1) the analysis contained in the TSD announced in this notice and (2) any information or evidence as to the suitability for adoption as Federal standards the pending amendments to Standard 90.1 as discussed above for SPVUs <65,000 Btu/h and three-phase Acs and HPs <65,000 Btu/h. For example, comments might include additional evidence, not discussed in the TSD or above, bearing on whether uniform national standards more stringent than the ones in the Standard 90.1 amendments for this equipment would be technologically feasible and economically justified, would result in significant energy conservation, or would be likely to result in the unavailability of products with

characteristics substantially the same as those generally available in the United States now. The Department also seeks comments on its initial conclusions for small commercial packaged boilers and PTACs and PTHPs. Finally, the Department seeks specific comments on the potential energy savings analysis presented for SPVUs<65,000 Btu/h. After the period for written comments, the Department will consider the views submitted.

IV. Approval by the Secretary

The Secretary of Energy has approved publication of this notice.

Issued in Washington, DC, on March 7, 2006.

Douglas L. Faulkner,

Acting Assistant Secretary, Energy Efficiency and Renewable Energy.

[FR Doc. 06–2381 Filed 3–10–06; 8:45 am]

BILLING CODE 6450–01–P

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 71

[Docket No. FAA–2006–23710; Airspace Docket No. 06–AAL–03]

Proposed Revision of Class E Airspace; Atqasuk Edward Burnell Sr. Memorial, AK

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Notice of proposed rulemaking.

SUMMARY: This action proposes to revise Class E airspace at Atqasuk Edward Burnell Sr. Memorial Airport, AK., referred to as Atqasuk Airport. Four Standard Instrument Approach Procedures (SIAPs) are being revised for the Atqasuk Airport. Adoption of this proposal would result in establishment of Class E airspace upward from 1,200 feet (ft.) above the surface at Atqasuk, AK.

DATES: Comments must be received on or before April 27, 2006.

ADDRESSES: Send comments on the proposal to the Docket Management System, U.S. Department of Transportation, Room Plaza 401, 400 Seventh Street, SW., Washington, DC 20590–0001. You must identify the docket number FAA–2006–23710/ Airspace Docket No. 06–AAL–03, at the beginning of your comments. You may also submit comments on the Internet at *http://dms.dot.gov.* You may review the public docket containing the proposal, any comments received, and any final disposition in person in the Dockets Office between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. The Docket Office (telephone 1–800–647–5527) is on the plaza level of the Department of Transportation NASSIF Building at the above address.

An informal docket may also be examined during normal business hours at the office of the Manager, Safety, Alaska Flight Service Operations, Federal Aviation Administration, 222 West 7th Avenue, Box 14, Anchorage, AK 99513–7587.

FOR FURTHER INFORMATION CONTACT: Gary Rolf, Federal Aviation Administration, 222 West 7th Avenue, Box 14, Anchorage, AK 99513–7587; telephone number (907) 271–5898; fax: (907) 271–2850; e-mail: *gary.ctr.rolf@faa.gov.* Internet address: *http://www.alaska.faa.gov/at.*

SUPPLEMENTARY INFORMATION:

Comments Invited

Interested parties are invited to participate in this proposed rulemaking by submitting such written data, views, or arguments as they may desire. Comments that provide the factual basis supporting the views and suggestions presented are particularly helpful in developing reasoned regulatory decisions on the proposal. Comments are specifically invited on the overall regulatory, aeronautical, economic, environmental, and energy-related aspects of the proposal. Communications should identify both docket numbers and be submitted in triplicate to the address listed above. Commenters wishing the FAA to acknowledge receipt of their comments on this notice must submit with those comments a self-addressed, stamped postcard on which the following statement is made: ''Comments to Docket No. FAA–2006–23710/Airspace Docket No. 06–AAL–03.'' The postcard will be date/time stamped and returned to the commenter.

All communications received on or before the specified closing date for comments will be considered before taking action on the proposed rule. The proposal contained in this notice may be changed in light of comments received. All comments submitted will be available for examination in the public docket both before and after the closing date for comments. A report summarizing each substantive public contact with FAA personnel concerned with this rulemaking will be filed in the docket.

Availability of Notice of Proposed Rulemakings (NPRMs)

An electronic copy of this document may be downloaded through the Internet at *http://dms.dot.gov.* Recently published rulemaking documents can also be accessed through the FAA's Web page at *http://www.faa.gov* or the Superintendent of Document's Web page at *http://www.access.gpo.gov/nara.*

Additionally, any person may obtain a copy of this notice by submitting a request to the Federal Aviation Administration, Office of Air Traffic Airspace Management, ATA–400, 800 Independence Avenue, SW., Washington, DC 20591 or by calling (202) 267–8783. Communications must identify both docket numbers for this notice. Persons interested in being placed on a mailing list for future NPRM's should contact the FAA's Office of Rulemaking, (202) 267–9677, to request a copy of Advisory Circular No. 11–2A, Notice of Proposed Rulemaking Distribution System, which describes the application procedure.

The Proposal

The FAA is considering an amendment to the Code of Federal Regulations (14 CFR Part 71), which would create additional Class E airspace at Atqasuk, AK. The intended effect of this proposal is to create Class E airspace upward from 1,200 ft. above the surface to contain Instrument Flight Rules (IFR) operations at Atqasuk, AK.

The FAA Instrument Flight Procedures Production and Maintenance Branch has amended four SIAPs for the Atqasuk Airport. The approaches are (1) Non Directional Beacon (NDB) Runway (RWY) 06, Amendment (Amdt) 1; (2) NDB RWY 24, Amdt 1; (3) Area Navigation (Global Positioning System) (RNAV (GPS)) RWY 06, Amdt 1; and (4) RNAV (GPS) RWY 24, Amdt 1. New Class E controlled airspace extending upward from 1,200 ft. above the surface within the Atqasuk Airport area would be established by this action. The existing 700 ft. Class E5 airspace remains unchanged. The 1,200 ft. airspace is required as a result of two approaches becoming Terminal Arrival Area (TAA) procedures. These procedures require more than the typical amount of controlled airspace near the associated airport. The proposed airspace is sufficient in size to contain aircraft executing instrument procedures at the Atqasuk Airport.

The area would be depicted on aeronautical charts for pilot reference. The coordinates for this airspace docket are based on North American Datum 83. The Class E airspace areas designated as 700/1200 foot transition areas are published in paragraph 6005 in FAA Order 7400.9N, *Airspace Designations and Reporting Points,* dated September 1, 2005, and effective September 15,