DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

[Docket No. FAA–2000–8560]

Icing Terminology

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Disposition of comments on proposed icing terminology.

SUMMARY: The FAA is publishing its final icing terminology and the disposition of the comments received regarding this icing terminology. These comments were solicited on December 22, 2000, when the FAA published its proposal for new and revised icing terms in the **Federal Register**.

ADDRESSES: The complete docket for the notice on intent may be examined at the Federal Aviation Administration, Office of the Chief Counsel, Attn: Rules Docket (AGC–200), Room 914–G, Docket No. FAA–2000-–8560, 800 Independence Ave., SW., Washington, DC 20591, weekdays (except Federal holidays) between 9 a.m. and 5 p.m.

FOR FURTHER INFORMATION CONTACT: Dan Meier, AFS–220 Air Transportation Division, Flight Standard Service, Federal Aviation Administration, 800 Independence Avenue, SW., Washington, DC 20591, telephone (202) 267–3749.

SUPPLEMENTARY INFORMATION:

Background

Following the 1996 FAA international Conference on Aircraft In-flight Icing, the FAA developed and implemented the FAA In-flight Aircraft Icing Plan during 1997 for responding to the recommendations and concerns which arose from that conference. Task 1.B of the FAA In-flight Aircraft Icing Plan responded to recommendations and concerns expressed during the conference relative to consistent use of operational icing terminology in FAA regulations, guidance material, and manuals. Task 1.B addressed clarifying and redefining icing terminology applied to in-flight operations. In implementing Task 1.B, the FAA was to: First, ensure that this icing terminology (*e.g.,* known, forecast, observed, trace, light, moderate, severe, and ''appendix C'' icing) is used consistently and clearly by the Flight Standards Service, pilots, dispatchers, the National Weather Service (NWS), Aviation Weather Center, the Aircraft Certification Service, and Air Traffic; and second, to update guidance related to icing reporting and pilot, Air Traffic Control, and dispatcher actions.

To accomplish these objectives, the FAA established the Task 1B Working Group (WG), which comprised representatives from FAA, National Oceanic and Atmospheric Administration (NOAA), and the National Center for Atmospheric Research (NCAR). The goal of the WG was to review the definitions of all icing-related terms that appear in government aviation regulations, weather-related handbooks, aircraft flight manuals, etc. Based on its findings the WG was to make recommended changes to the definitions where they needed to be updated or improved. These recommendations would eliminate misunderstanding in their use among and between the previously mentioned sources.

This work was accomplished through a series of meetings by the WG, and the result was a set of proposed definitions for in-flight icing terminology. The WG did not consider or propose any changes to the aviation regulations or icing forecasting procedures, although it became clear to the WG that existing regulatory wording and existing policy within the U.S. National Weather Service (NWS) and the International Civil Aviation Organization (ICAO) limited the freedom of the WG to change the icing-related terms in use. A public meeting was held in July of 1999 to solicit comments and input from industry representatives and interested members of the public concerning the FAA's proposal to clarify or add selected icing terminology. The FAA also proposed to amend the pilot-reporting format for icing PIREPs and append a table of icing effects. The terminology definitions developed by the WG were published in the **Federal Register** on December 22, 2000 for public comment. The icing terminology definitions were appropriately revised during the disposition of the public comments.

Discussion

Summary of Significant Changes to Icing Terminology

The new terminology excludes trace ice, eliminates former ambiguities about the meaning of known or forecast ice, and defines several new terms.

The term ''trace ice'' has been deleted from the FAA in-flight icing terminology. The current definition of trace ice implied that it was not hazardous to flight, however, experience and research have shown that trace ice can be hazardous to some airplanes in certain conditions and that icing conditions can vary quickly and significantly in intensity. Also, National Transportation Safety Board (NTSB) Safety Recommendation A–98–88 recommended the following to the FAA: ''Amended the definition of trace ice contained in Federal Aviation Administration (FAA) Order 7110.10L, ''Flight Services'' (and in other FAA documents as applicable) so that it does not indicate that trace icing is not hazardous.'' Deletion of the term ''trace icing'' responds to the NTSB's Safety Recommendation A–98–88. However, the Task 1.B WG did acknowledge that deletion of the term ''trace icing'' may affect operation of airplanes without approved ice protection provisions in the heretofore defined ''trace icing'' conditions. ''Trace icing,'' previously defined as an icing intensity less severe than ''light'' or ''moderate'' icing, is not addressed by the FAA operating rules (14 CFR 91.527(b), 121.341(c), 125.221(c), and 135.227(c)). Therefore, the operation of some airplanes in ''trace icing'' without ice protection provisions may be inferred as acceptable since the term ''trace icing'' is not addressed by the rules. Definitions of the icing intensity terms are not included in the regulations definitions provided by 14 CFR part 1. The WG concluded that the term ''trace icing'' should be deleted since: (1) The airworthiness of airplanes without ice protection provisions in any icing conditions was not addressed during type certification of such airplanes; (2) the operating rules fail to define light and moderate icing and fails to address ''trace icing;'' (3) the earlier discussion indicates that ''trace icing'' can be hazardous, especially without ice protection provisions; and (4) the NTSB Safety Recommendation A–98–88 states that FAA documents should not indicate that ''trace icing'' is not hazardous. Deletion of ''trace icing'' and re-definition of ''light icing'' will clarify and provide a means for showing compliance with the intent of the previously mentioned FAA operating rules.

Airplanes having certification with ice protection provisions are approved for flight in icing conditions but do not have the capability of unlimited operation in all icing conditions. Currently, airplanes having certification with ice protection provisions, in compliance with 14 CFR 23.1419 and CFR 25.1419, must be able to operate safely in the icing conditions defined in appendix C of 14 CFR part 25. Icing conditions in clouds, defined in appendix C of 14 CFR part 25, were established as being satisfactory standards for the design and certification of airplane ice protection

provisions, however atmospheric icing conditions are highly variable and can exceed these standards. Freezing precipitation (freezing rain and freezing drizzle), within and below clouds are examples of conditions that are not address by and exceed Appendix C. When encountering icing conditions that exceed appendix C of 14 CFR part 25, ice protection provisions may no longer be effective to provide safe operations and flight crew action may be required to promptly and safely exit those atmospheric environments, as required by 14 CFR 91.13.

The following is the list of terms recommended by the Task 1B WG as an updated replacement for current terminology used in reference to in-flight icing of aircraft. The FAA intends to update the current terminology with the following terms.

Icing Terminology and Definitions

Icing Intensities

Light

The rate of ice accumulation requires occasional cycling of manual deicing systems** to minimize ice accretions on the airframe. A representative accretion rate for reference purposes is ¼ inch to one inch (0.6 to 2.5 cm) per hour * on the outer wing. The pilot should consider exiting the condition.***

Moderate

The rate of ice accumulation requires frequent cycling of manual deicing systems ** to minimize ice accretions on the airframe. A representative accretion rate for reference purposes is 1 to 3 inches (2.5 to 7.5 cm) per hour * on the outer wing. The pilot should consider exiting the condition as soon as possible.***

Heavy

The rate of ice accumulation requires maximum use of the ice protection systems to minimize ice accretions on the airframe. A representative accretion rate for reference purposes is more than 3 inches (7.5 cm) per hour * on the outer wing. Immediate exit from the conditions should be considered.***

Severe

The rate of ice accumulation is such that ice protection systems fail to remove the accumulation of ice and ice accumulates in locations not normally prone to icing, such as areas aft of protected surfaces and any other areas identified by the manufacturer. Immediate exit from the condition is necessary.****

* These rates can be measured by a suitable icing rate meter.

** It is expected that deicing or anti-icing systems will be activated and operated continuously in the automatic mode, if available, at the first sign of ice accumulation, or as directed in the Airplane Flight Manual. *Occasional and frequent* cycling refers to manually activated systems.

*** It is assumed that the aircraft is approved to fly in the cited icing conditions. Otherwise, immediate exit from any of these intensity categories is required by regulations (14 CFR 91.13(a), 91.527, 121.341, 125.221, and 135.227).

**** *Severe* icing is aircraft dependent, as are the other categories of icing intensity. Severe icing may occur at *any* ice accumulation rate when the icing rate or ice accumulations exceed the tolerance of the aircraft. Icing certification implies an increased tolerance to icing intensities up through heavy.

Icing Types

Note: Ice types are difficult for the pilot to discern and have uncertain effects on an airplane in flight. Ice type definitions will be included in the AIM for use in the ''Remarks'' section of the pirep and for use in forecasting.

Rime Ice

A rough, milky, opaque ice formed by the rapid freezing of supercooled drops/droplets after they strike the aircraft. The rapid freezing results in air being trapped, giving the ice its opaque appearance and making it porous and brittle. Rime ice typically accretes along the stagnation line of an airfoil and is more regular in shape and conformal to the airfoil than glaze ice. It is the ice shape, rather than the clarity or color of the ice, which is most likely to be accurately assessed from the cockpit.

Glaze Ice

Ice, sometimes clear and smooth, but usually containing some air pockets, which results in a lumpy translucent appearance. Glaze ice results from supercooled drops/droplets striking a surface but not freezing rapidly on contact. Glaze ice is denser, harder, and sometimes more transparent than rime ice. Factors, which favor glaze formation, are those that favor slow dissipation of the heat of fusion (i.e., slight supercooling and rapid accretion). With larger accretions, the ice shape typically includes ''horns'' protruding from unprotected leading edge surfaces. It is the ice shape, rather than the clarity or color of the ice, which is most likely to be accurately assessed from the cockpit. The terms ''clear'' and ''glaze'' have been used for essentially the same type of ice accretion, although some reserve ''clear'' for thinner accretions which lack horns and conform to the airfoil.

Clear Ice

See Glaze Ice.

Mixed Ice

Simultaneous appearance or a combination of rime and glaze ice characteristics. Since the clarity, color, and shape of the ice will be a mixture of rime and glaze characteristics, accurate identification of mixed ice from the cockpit may be difficult.

Known or Observed or Detected Ice Accretion

Actual ice observed visually to be on the aircraft by the flight crew or identified by onboard sensors.

Runback Ice

Ice which forms from the freezing or refreezing of water leaving protected surfaces and running back to unprotected surfaces.

Residual Ice

Ice which remains on a protected surface immediately after the actuation of a deicing system.

Intercycle Ice

Ice which accumulates on a protected surface between actuation cycles of a deicing system.

Icing Conditions

Forecast Icing Conditions

Environmental conditions expected by a National Weather Service or an FAA-approved weather provider to be conducive to the formation of in-flight icing on aircraft.

Potential Icing Conditions

Atmospheric icing conditions that are typically defined by airframe manufacturers relative to temperature and visible moisture that may result in aircraft ice accretion on the ground or in flight. The potential icing conditions are typically defined in the airplane flight manual or in the airplane operation manual.

Known Icing Conditions

Atmospheric conditions in which the formation of ice is observed or detected in flight.

Note: Because of the variability in space and time of atmospheric conditions, the existence of a report of observed icing does not assure the presence or intensity of icing conditions at a later time, nor can a report of no icing assure the absence of icing conditions at a later time.

Freezing Rain (FZRA)

Rain is precipitation at ground level or aloft in the form of liquid water drops which have diameters greater than 0.5

mm. Freezing rain is rain that exists at air temperatures less than 0 °C (supercooled), remains in liquid form, and freezes upon contact with objects on the ground or in the air.

Freezing Precipitation

Freezing precipitation is freezing rain or freezing drizzle falling through or outside of visible cloud.

Freezing Drizzle (FZDZ)

Drizzle is precipitation at ground level or aloft in the form of liquid water drops which have diameters less than 0.5 mm and greater than 0.05 mm. Freezing drizzle is drizzle that exists at air temperatures less than 0 °C (supercooled), remains in liquid form, and freezes upon contact with objects on the surface or airborne.

Icing in Precipitation

Icing occurring from an encounter with freezing precipitation, that is, supercooled drops with diameters exceeding 0.05 mm, within or outside of visible cloud.

Icing in Cloud

Icing occurring within visible cloud. Cloud droplets (diameter < 0.05 mm) will be present; freezing drizzle and/or freezing rain may or may not be present.

Supercooled Large Drops (SLD)

Liquid droplets with diameters greater than 0.05 mm at temperatures less than 0 °C, i.e., freezing rain or freezing drizzle.

Supercooled Drizzle Drops (SCDD)

Synonymous with freezing drizzle aloft.

Supercooled Drops or /Droplets

Water drops/droplets which remain unfrozen at temperatures below 0 °C. Supercooled drops are found in clouds, freezing drizzle, and freezing rain in the atmosphere. These drops may impinge and freeze after contact on aircraft surfaces.

Appendix C Icing Conditions

Appendix C (14 CFR, part 25 and 29) is the certification icing condition standard for approving ice protection provisions on aircraft. The conditions are specified in terms of altitude, temperature, liquid water content (LWC), representative droplet size (mean effective drop diameter [MED]), and cloud horizontal extent.

Disposition of Comments

1. Request for Statement That Icing Certification Does Not Imply Unlimited Safe Flight in All Icing Conditions

One commenter requested that the FAA include in the final notice emphasis that certification for flight in icing conditions does not imply that an aircraft has the capability for unlimited safe flight in all icing conditions.

The FAA concurs. The discussion section of the notice has been revised accordingly.

2. Drop Proposed New Icing Intensity Definitions

The arguments in favor of dropping the icing intensity definition are as follows:

(a) Any changes in the definitions would be too confusing (to pilots).

The FAA does not concur. The FAA 1996 international icing conference concluded that the existing icing terminology is confusing. Reasons for this conclusion include:

- The present definition of severe is contradictory to 14 CFR 91.209(c) and 135.227(c) which allow icing-certificated airplanes to fly into severe (uncontrollable, by definition) icing conditions.
- The definitions give no objective standard or rules for pilots to decide which icing intensity the aircraft is experiencing at the moment, or for distinguishing one intensity level from the next.
- With the present definitions, icing intensities are neither measurable nor forecastable, because the definitions contain no quantitative relationship to anything that is calculable or observable, nor any connection at all to the icing atmosphere.
- There is presently no way to relate the icing intensity reported by one aircraft make and model to another.

The proposed terminology responds to the conclusions reached by the 1996 conference.

Icing intensities are of interest to pilots and forecasters, of course, but also to icing engineers, each group having its own experiences, needs, and perspectives. But the present icing definitions are useless to forecasters and engineers because the definitions contain nothing that can be measured or calculated, and they are of questionable value to pilots for the reasons bulleted above. During development of the proposed definitions, it became clear that the three groups often have difficulty comprehending the viewpoints of the others, and this contributes to the confusion. The public comments on the proposals were almost exclusively from the viewpoint of pilots, and the comments reflect their perspective. The proposed changes were intended to accommodate all three groups and to help overcome at least some of these problems.

To minimize confusion on the part of the pilots, it was decided to keep some of the familiar wording while adding a quantifiable aspect to make the definitions more useful for engineering and forecasting purposes.

(b) The definitions are intended to be reporting definitions and nothing else.

The FAA does not concur. The original intent of the definitions was that they be used by pilots and flight crews to report encountered icing conditions. However, the pilot reports are now being used also by meteorologists to diagnose and forecast icing conditions. If a quantitative relationship between the intensity levels and something measurable and calculable is established, the definitions can be used for reporting, forecasting, and engineering purposes, and their utility can therefore be markedly improved.

(c) The proposal to relate icing intensities to both the wing and tailplane, each with their own icing rates, will give rise to two icing intensities for the airplane instead of just one.

The FAA concurs. The most icing-critical components of the aircraft are, of course, the ones to be concerned about. In the absence of any more critical components, the outer wing is now suggested in the interest of establishing a meaningful and uniform reference location for ice accretions on all airplanes. Typically, the outer wingspan, being the thinnest part of the wing, has the greatest droplet collection efficiency for the wing.

(d) Large airplanes will report lesser icing intensities than small airplanes in the same icing conditions.

The FAA concurs. This is already true with the existing definitions, and will remain true no matter what the definitions may be. However, because of this issue, the proposed definitions identify the leading edge as the reference surface and the PIREP format for icing is being revised to ensure reporting of the airplane type. This information can be interpreted by other pilots relative to anticipated ice accretion and flying quality effects for their aircraft and can meteorologically define the encountered icing environment. The new, quantified definitions are designed to take advantage of the difference in response between large and small airplanes and enable icing intensities to actually be

computed (using modern software) for a given icing condition. This new feature is a major improvement because it will allow icing forecasts to be tailored to individual airplane makes and models, to the degree that the relevant variables are known. AIAA–98–0094 contains information on how the new definitions will permit this to be achieved.

(e) The only way for accretion-based intensities to be useful for forecasting is to have every airplane carry a small ice accretion probe and base icing (PIREP) reports on that.

The FAA partially concurs. Having a common ice accretion probe on all aircraft for reporting icing conditions would be advantageous, however, the FAA does not currently plan to mandate such a probe. The choice of the reference surface coupled with the aircraft model and estimated accretion rate provides useful information for forecasting.

There are two ways to categorize icing conditions—describe the atmospheric conditions themselves, or describe their effects on the aircraft. The former would include liquid water concentration, static air temperature, and perhaps a representative droplet size in the clouds. But these are meaningless to pilots unless they are translated into effects on the aircraft. The effects may be qualitative or quantitative.

Qualitative definitions focus on perceivable effects on the aircraft and are not quantifiable. The present icing intensity definitions are ultra-qualitative, using terms like occasional or frequent need to deice, and vague warnings that the icing may create a problem or is potentially hazardous, for example. (In comparison, see the AIM for definitions of turbulence intensities which, although qualitative, are much easier to characterize and distinguish).

Quantitative definitions would specify ice accretion rates on components of concern or would list graduated intervals of speed loss, compensatory power increase, or other measurable effects of ice accretion. (A graduated table of operational effects was developed and will be submitted as a recommended change to the PIREP format.)

The situation is complicated by the presence of functioning ice protection equipment. When the equipment is operating, it may be difficult or impossible to observe, estimate, or measure any ice accretion on the protected surfaces. For heated wings there should be no ice accretion to report anyway. For booted wings operated on automatic cycle intervals, the crew would have to estimate the rate of buildup between cycles. Newer boot models with embedded icing rate sensors may be useful here.

Otherwise, an icing rate meter (not located on a critical surface) is a useful surrogate for quantitative measurements of both the icing atmospheric variables and the ice accretion on the aircraft components of concern. To a certain extent, it can be related quantitatively to both. By taking into account the differences in the droplet collection efficiency of the probe compared to the aircraft component, rates measured by the probe can be converted to proportional rates on the component.

In a similar way and to a certain extent, icing rates measured by a probe on one airplane can be converted to expected accretion rates on components of other airplanes too, as long as the airspeeds are known. The new, quantitative definitions also take advantage of this fact and allow these measured icing rates to be converted to equivalent icing rates on the wings or tailplane of the reporting airplane and on any other make and model that may fly through the same icing conditions. (For a good explanation, see the technical paper ''A Workable, Aircraft-Specific Icing Severity Scheme'', AIAA–98–0094 (Jan. 1998) by R. Jeck.)

It must be understood that the indicated icing rates are those to be expected on an unheated component.

Gradually more and more airplanes may install icing rates probes that are already commercially available. Through icing PIREPS, this would greatly help the icing forecasters and, by means of conversion tables, could help even those airplanes without the probes.

(f) There is no need to re-define something that well-trained pilots have known about for 30 years or more.

The FAA does not concur. Concerns have been expressed about the ambiguities of the existing definitions. The existing definitions are outmoded in view of technological advances. The existing definition were formulated at a time when no suitable icing rate meters were available, and when computing icing rates on an airfoil was prohibitively difficult due to lack of computing power and to lack of the necessary experimental data on most airfoils. The FAA wishes to modernize the definitions consistent with current and anticipated technology.

(g) Except for severe icing conditions, airplanes certificated for flight in icing conditions are supposed to be protected enough to allow safe transition out of icing, or to lesser icing intensities. Therefore, the changes in definitions are neither helpful nor necessary nor increase safety.

The FAA does not concur. Even for icing-certificated airplanes, reported icing intensities are helpful for planning, forecasting of icing conditions, situational awareness, and compliance with operating rules and associated limitations (14 CFR parts 91.527, 121.341, 125.221, and 135.227). The definition of severe icing conditions is being changed to be airplane-specific. Thus, reported less-than-severe icing conditions for one aircraft may indicate severe icing for other types of aircraft.

(h) The new definitions endanger safety and introduce new ambiguities.

The FAA does not concur. In light of the explanations given above, current ambiguities will be reduced for all users because of better, more versatile definitions of the icing intensities.

3. Revise Definitions of Light and Moderate Icing To Make Them Consistent With the ADs on the Operation of Pneumatic Boots

One commenter requested that the FAA revise definitions of light and moderate icing to make them consistent with the ADs issued by the FAA in December 1999 on the operation of pneumatic boots.

The FAA concurs. Therefore, the word ''use'' has been replaced by ''cycling'' so as not to imply delayed activation of ice protection systems.

4. Include Characterization of Hazard to Aircraft in Icing Intensity Definitions

Include characterization of hazard to aircraft in icing intensity definitions. (One commenter suggests that these be related to loss in indicated airspeed of percentage increase in power.)

The FAA partially concurs. The definitions were modified to include characterization of the hazard, however, the aerodynamic effects of icing are aircraft-specific. Therefore, the PIREP icing report format currently contained in the AIM in being revised to include the characterization of the hazard being experienced by the reporting pilot.

5. Remove Footnotes

The FAA does not concur. Although the footnotes have been removed, the information contained in them has been corrected and retained within the definitions themselves.

6. Correct Errors in Footnotes

Several commenters noted that there were typographical errors in the footnotes.

The FAA concurs. Typographical errors in the footnotes have been corrected and the information has been inserted in the definitions.

7. Revise Icing Rates in Footnotes, as They Are Not Realistic or Not Consistent With Certification Standards

(a) An icing rate of ¼-inch in five minutes, which would be severe based on these definitions, would not be considered hazardous with regard to the effect on aircraft flight characteristics on certain types of regional aircraft.

The FAA concurs. The FAA now agrees that it is incorrect to assign an icing rate to severe. The FAA proposes to re-instate the term heavy for the greatest icing rate category. The FAA recommends that the term severe (without any icing rate attached) be retained to cover the situation where the ice protection system is inadequate, no matter what the icing rate.

(b) What is the basis for the numerical icing rates assigned to the different intensities?

The icing rates that were given in the footnotes were taken from the technical paper. ''A Workable, Aircraft-Specific Icing Severity Scheme,'' AIAA–98–0094 (Jan. 1998) by R. Jeck. While the reference rates are admittedly arbitrary, and are primarily based on the traditional operation of the pneumatic deicing boots, the AIAA paper clearly explains the rationale behind these rates and gives several application examples. Interested readers are referred to this paper.

In AIAA–98–0094, occasional is interested as once every 15 minutes to an hour. Similarly, for moderate icing, which the present definitions associate with (frequent) use of deicers, the word frequent is interpreted as once every 5 to 15 minutes. Severe (or preferably heavy) icing rates must require even more usage, which would have to be more often than once every 5 minutes. In tabular form, the proposed rates have the following relationships:

Light: ¼-inch accumulation in 15–60 minutes, which is equivalent to
0.1–0.4 mm./min, or
¼ to 1 inch per hour.

Moderate: ¼-inch accumulation in 5–15 minutes, which is equivalent to
0.4–1.3 mm/min, or
1 to 3 inches to hour.

Heavy: ¼-inch accumulation in less than 5 minutes, which is equivalent to
more than 1.3 mm/min, or
more than 3 inches per hour.

This scheme preserves the ''1-hour'' separation between light and moderate intensities, as mentioned in the present definitions. It also relates the onset of heavy icing conditions with a rate that would, if continued, produce a 3-inch accumulation in an hour.

Three inches of ice on unprotected surfaces is considered to be a critical accumulation for design, test, and certification purposes.

(c) Commenters suggests changing the footnotes to read 30–60 minutes for light, 15–30 minutes for moderate, and 5–15 minutes for heavy.

The FAA does not occur. The commenter may be uncomfortable with the proposed 45 minutes spread in time allowed for light icing intensities, and prefer a 30 minute spread instead. But the commenter has not provided any justification for his preference.

(d) Severe icing is (presumably) a condition outside of the Continuous Maximum envelope because, by rule, the (icing-certificated) aircraft must have protection throughout this envelope. But ''severe icing'' can be found on the Continuous Maximum icing chart in 14 CFR part 25, Appendix C. This is inconsistent.

The FAA concurs that inconsistency could arise with the previous definition of severe for some conditions within the continuous maximum icing envelope. However, the FAA now agrees that it is incorrect to assign an icing rate to severe, so any inconsistency has been eliminated. The rate previously assigned to ''severe icing'' is not assigned to ''heavy icing.'' Depending on the airspeed of the aircraft and the collection efficiency of the monitored surface, the heavy icing rate can occur for some points within the continuous maximum icing envelope, particularly for shorter encounters. For encounters exceeding about 20 minutes, a heavy icing rate would ordinarily not be experienced in continuous maximum conditions by most aircraft because of the envelope correction reducing liquid water content for sustained encounters.

8. Base Icing Rates in Footnotes in Unprotected Surfaces to Preferably on a Representative Ice Detector Surface or Probe

Base icing rates in footnotes on unprotected surfaces or preferably on a representative ice detector surface or probe. (That is, if the wing and tailplane are ice protected, then the pilot cannot observe or judge icing rates there while the protection systems are preventing or removing the ice. Therefore, only a separate probe or an unprotected part of the wing will be useful or observing ice accretion rates.)

The FAA concurs. The outer wing may be used unless otherwise specified. The outer wing and tailplane were suggested as standard reference locations so that everyone involved (pilots, forecasters) would all be focused on the same spot on the airplane. Naturally, these locations may not even be observable due to darkness or line-of-sight obstruction, for example. Heated wings would not be expected to accumulated any ice anyway. In that case, the pilot would not report any icing intensity. Icing conditions may exist, but for adequately heated wings there should be no accretion and therefore no intensity! If the protected parts of the aircraft do collect ice, then it would be reported as severe if the equipment is unable to control it. This would apply to the windshield too, if it iced over uncontrollably.

In any case, there is no substitute for a good measurement, and the proposed definitions anticipate the eventual use of icing rate meters for obtaining the measurements. Icing rate measurements on a probe can be converted to corresponding rates on the wing or tail. In the absence of an icing rate meter, the pilot is encouraged to estimate an accretion rate with the outer wing or tailplane in mind. This is no different from the present situation where pilots are instructed in the AFM to estimate when ¼-inch of ice has accreted as a signal for inflating the boots. Admittedly, without an icing rate meter there is no easy way to estimate ice accretion rates or amounts. This is a problem even with the current definitions. But by focusing on the same ice-critical components of the airplane, there can be uniformity in reporting and eventually in forecasting.

9. Retain the Term Trace Icing

(a) The NTSB (A–98–88) did not recommend eliminating trace icing, but only to eliminate the ''not hazardous'' wording.

The FAA does not concur and has decided to delete the term Trace ice for the following reasons:

- Trace icing is not forecast.
- Trace icing is not governed by the regulations.
- Identification of trace icing is dependent on the capability of the pilot to judge. The FAA considers that estimating an ice accretion of a quarter of an inch or less per hour is outside the judgment of a pilot and questions how the instrumentation would handle it.
- The definition of trace icing implies continued flight in icing by unprotected aircraft is acceptable.
- An interpretation of 135.227 suggests that the proposed change may negate the current practice of flight in IFR icing conditions by unprotected aircraft and aircraft certified for icing under older rules (CAR–3, prior to amendment 23–14).

• Removal of the term trace icing is consistent with the FAA position that all icing is hazardous.

(b) Commenter recommends defining trace icing as: ''Icing becomes perceptible and the rate of accumulation is slightly greater than the rate of sublimation. Icing resulting from flight in a supercooled cloud with liquid water content less than 0.1 grams per cubic meter. A representative accretion rate for forecasting or reference purposes is ¼-inch or less in an hour or more on an outer wing or tailplane, prior to activation of any ice protection equipment.''

The commenter is from the helicopter community where icing severity based on a LWC scale has been in use out of necessity. This is because, in hover, there is no forward flight and an artificially aspirated icing sensor must be used in order to assess the icing environment. In that case, the icing rate indicated by the sensor has no relation to what may be happening on the airframe. Rather, the icing rate, under the known aspirated air velocity, can be converted to LWC to gauge the icing propensity of the cloud or fog in which the helicopter may be embedded at the moment. In this case, the helicopter manufacturer may have to supply some relationship between LWC amounts and the expected effects on the helicopter.

In any case, the FAA has no recommendations for an icing intensity scale for helicopters. The FAA proposals were intended for fixed wing airplanes. * * *

10. Retain Trace Icing If Its Elimination Will Result in Greater Aerial Coverage of Forecast Icing

Another commenter requested that the term ''trace icing'' be retained if its elimination would result in greater aerial coverage of forecast icing.

The FAA does not believe that the aerial coverage of forecast icing will be affected by the elimination of the term ''trace icing,'' since trace icing is not forecast by the NWS. Light icing is forecast by the NWS, and it will continue to be forecast under the same conditions whether or not trace icing is eliminated.

11. Change the Definition of ''Light Icing'' to ''The Rate of Ice Accumulation May Require Occasional Use of Ice Protection Systems To Remove or Prevent Accumulation''

The FAA partially concurs. The recommended wording is reflected in the new wording proposed by the FAA.

12. Change the Definition of ''Light Icing'' So That It Is Icing ''Represented by the Capability of the Aircraft To Safely Fly and Land Without the Ice Protection Turned On''

The FAA does not concur. Light ice can accrete to the point where ice protection may be required. The pilot may not be able to judge ice accretion that results in reduced safety margins.

13. Change the Definition of ''Moderate Icing'' to ''The Rate of Ice Accumulation May Require Occasional to Frequent Use of Ice Protection Systems To Remove or Prevent Accumulation''

The FAA partially concurs. The commenter retains the conditional ''may'' from the definition of light icing in the original notice. The FAA now believes that both light and moderate icing connotes a definite need to activate ice protection equipment.

The commenter also suggests retaining the word ''occasional'' in the description of moderate icing. According to the proposed revised definitions, moderate icing corresponds to ¼-inch of ice accumulation every 5 to 15 minutes. This has been interpreted (in AIAA–98–0094) as frequent usage if the deicing system is activated at least each time ¼-inch accumulates.

14. Change the Definition of ''Moderate Icing'' to Anything Between Light and Severe

The FAA does not concur. For clarity, the FAA prefers to provide an independent definition of moderate icing.

15. The Term ''Severe Icing'' Should Be Reserved for Ice Protection System Failure-To-Remove-Ice, and the Term ''Heavy Icing'' Used To Describe Ice Accretion Rates

The FAA concurs. Although the term heavy has long been used by pilots to describe ice accretions greater than moderate, it has not been used for official forecasts or reporting. The FAA will propose that the National Weather Service cease forecasting severe icing and instead forecast heavy icing. Heavy icing should be based on reasonable scientific principles. The FAA agrees that severe icing is aircraft-specific while heaving icing need not be and that severe icing should be limited to a failure-to-remove-ice condition until meteorological technology makes it possible to forecast severe ice conditions with reasonable accuracy which can be applied to specific aircraft.

16. Define ''Severe Icing'' To Be Anything Beyond What the Aircraft Has Demonstrated in Certification

The FAA does not concur. Some airplane designs may be able to operate safely in icing conditions exceeding the certification standards, depending on airplane size and ice protection system capability.

17. New Definition of Severe Icing Conditions Is Not Consistent With Definitions in FAA Advisory Material

The FAA concurs. When the new definition of severe icing, as well as the other proposed definitions, are approved, the FAA will revise all advisory material to include the new terminology.

18. The Term ''Heavy'' Should Be Included in the List of Definitions To Characterize an Accretion Rate Previously Associated With ''Severe Icing''

The FAA concurs. The FAA will propose that the term ''heavy'' be included in the list of new definitions as the ice accretion rate associated with the current definition of severe.

19. The Term ''Heavy'' Should Be Used To Provide Another Icing Level Between Moderate and Severe

The FAA concurs. The term ''severe icing'' will be reserved to refer to that condition where the pilot determines that his/her aircraft cannot safely continue flight. Revise note for accuracy or delete note.

The FAA concurs that as written the note was unclear, and it has been revised.

20. Request To Use Shape as the Primary Descriptor, and Clarity and Color (if at all) as Secondary Descriptors in the Definitions of Ice Types

Several commenters requested that shape be included as a descriptor in the ice type definitions. It was further requested that shape be identified as the primary descriptor, and clarity and color as secondary descriptors, on the grounds that shape is more likely to be accurately identified from the cockpit than clarity or color.

The FAA partially concurs and has added shape to the definitions of rime and glaze ice. Furthermore, the definitions now include acknowledgment that shape, rather than clarity or color, is more likely to be accurately assessed from the cockpit.

21. Request To Relate Aerodynamic Effects to Ice Type in Definitions

One commenter requested that statements relating ice type to

aerodynamic effects be included in the ice type definitions.

The FAA does not concur. The FAA acknowledges that glaze ice, particularly if horns are present or if the ice is relatively rough, is likely to be more detrimental to flying qualities than rime ice, particularly if the rime is conformal to the airfoil and relatively smooth. However, determination of ice type from the cockpit is challenging and may be extremely difficult. Thus, misidentification of ice type by pilots, particularly when visibility is limited by night or other circumstances, may be a common event. If such misidentification is associated with erroneous expectations as to the aerodynamic effect of the ice, potential hazards to the safety of flight may be increased.

22. Request To Reword Definition of ''Rime Ice''

One commenter noted inconsistencies in the wording of the definitions of rime and glaze ice, and requested that these inconsistencies be corrected.

The FAA concurs and the wording has been clarified.

23. Request To Not Include Clear Ice as a Separate Term in List of Definitions

One commender requested that clear ice be referenced in the definition of glaze ice, and that it be deleted as separate entry in the list of definitions. The commenter noted that the proposed definitions indicate identical formation mechanisms for glaze ice and clear ice, and provided no reason to differentiate between the two.

The FAA partially concurs. Clear ice is a commonly used term within the aviation community. It is retained, therefore, as a separate entry in the list but the reader is referred to the definition of glaze ice which has the same formation mechanism.

24. Request To Reword Definition of Mixed Ice

One commenter requested that the word ''characteristics'' be added at the end of the first sentence in the definition of mixed ice.

The FAA concurs. Accordingly, the word ''characteristics'' has been added at the end of the first sentence in the definition of mixed ice.

25. Request To Either Delete the Term ''Known or Observed/Detected Icing'' From the List of Definitions or To Combine It With the Term ''Known Icing Conditions''

One commenter requested that the FAA delete the term ''Known or Observed/Detected Icing'' or else combine it with the term ''Known Icing.'' The commenter believed that there was not a sufficiently clear distinction between the two terms and that retention of both would cause confusion.

The FAA does not concur, but agrees that there is a possibility of confusion. Therefore, it has replaced the term ''Known or Observed/Detected Icing'' with ''Known or Observed/Detected Ice Accretion'' in order to avoid such confusion. The FAA believes that there is a clear distinction between Known Icing Conditions and Known or Observed/Detected Ice Accretion.

26. Request To Clarify the Meaning of ''Approved'' in Definition of ''Forecast Icing Conditions''

The FAA concurs that clarification is needed and has revised the definition to state that the weather provider must be FAA-approved.

27. Request To Revise Definition of ''Potential Icing Conditions''

Two commenters request that the definition of ''potential icing conditions'' be revised for improved clarity and accuracy and so that it will not be confused with ''forecast icing conditions.''

The FAA concurs. Potential icing conditions are typically defined by airframe manufacturers relative to temperature and visible moisture that may result in aircraft ice accretion on the ground or in flight. Because the airframe manufacturers are aware of areas on the aircraft, such as the engine induction system, that may accrete ice under certain atmospheric conditions, aircraft manufacturers are considered to be the best source for this information. The potential icing conditions are typically defined in the airplane flight manual or in the airplane operation manual. Forecast icing conditions are predicted by weather providers.

28. Either Delete the Definition of ''Known Icing Conditions'' in the List, or Else Align the Definition With That Used in the Relevant NTSB Cases

The FAA does not concur with this request because it believes that there is no conflict between the revised definition and the NTSB cases. Essentially the proposed definitions of ''Known Icing Conditions,'' ''Known Ice,'' and ''Forecast Icing'' are in agreement with the recent court cases. In the case of Irmisch v. McLucas Civil No. 76–4273 (CA 2, filed May 2, 1977) the court understood Known Icing to mean icing that is known to the pilot. The FAA is not in conflict with the NTSB in its interpretation of forecast icing since forecasted icing conditions existed at the time of the aircraft icing events in the three cases cited by the commenter.

Forecast icing conditions represent the best estimate by the National Weather Service that icing conditions will be present at a certain time over a certain geographic area. A forecast of icing conditions does not mean that there is an absolute certainty that icing will occur. It does mean, however, that a pilot must take into account forecasted icing conditions during flight planning so that the pilot, whose aircraft may not meet the requirements of the regulations, avoids actual icing. The FAA sees no conflict between the proposed definitions and what is required by the regulations.

29. Reword Definition of ''Freezing Rain (FZRA)'' for Improved Clarity, Etc.

Several commenters requested that the FAA reword the definition of ''freezing rain (FZRA)'' for improved clarity, accuracy, utility, and consistency with other terms.

The FAA partially concurs. One commenter stated that there is no mention of size distribution in the definition. There ought not to be—the definition applies to individual drops. There is no ''freezing rain distribution'' and to attempt to define such would add unnecessary complexity to this definition. This applies to freezing drizzle as well.

Another commenter notes the work that is being done to characterize freezing rain and freezing drizzle in terms of drop size, liquid water content, etc. and is concerned with possible conflicts between this definition and what may come of that work. The size definitions included in the proposal are those that appear in the Glossary of Meteorology; these are generally accepted by meteorologists and have been for some time. It is highly unlikely that new definitions of these terms will arise from the characterization work. Rather, the results of the environmental characterization will serve to provide envelopes of possible environmental conditions where freezing rain and freezing drizzle are found, in enough detail to enable engineering specifications for possible compliance to an expanded icing envelope, and avoid conflict with existing terminology.

Another commenter suggests that the freezing rain and freezing drizzle definitions be expanded to include the atmospheric conditions often associated with them. The FAA believes this could be misleading since the conditions a) can overlap for freezing rain and freezing drizzle and b) can be present

with an absence of either freezing rain or freezing drizzle.

It is probably not advisable to include a caveat in the definition specifying that freezing rain contain ''an appreciable amount of water in drops'' which have diameters greater than 0.5 mm, as one commenter suggested. The phrase ''appreciable amount'' adds ambiguity to the definition.

There were also good suggestions for clarifying the language.

The definition has been revised in the notice.

30. Reword Definition of ''Freezing Precipitation'' To Clarify Distinction Between ''Freezing Precipitation'' and ''Supercooled Large Drops''

The FAA concurs that there was little distinction between the proposed definitions. The definition of ''Freezing Precipitation'' has been revised in the notice.

31. Reword the Definition of ''Freezing Drizzle (FZDZ)'' for Improved Clarity, Accuracy, Utility, and Consistency With Other Terms

The comments are very similar to those for freezing rain; see above for some specifics. The FAA concurs with many of these and the definition has been revised in the notice.

32. Request To Revise Definition of ''Icing in Precipitation''

Several commenters requested that the FAA reword the definition of ''icing in precipitation'' for improved clarity, accuracy, utility, or consistency with other terms.

The FAA concurs with most of the comments and has revised the definition accordingly.

33. Reword the definition of ''Icing in Cloud'' for Improved Clarity, Accuracy, Utility, and Consistency With Other Terms

One commenter noted that even outside of visible cloud, the atmosphere will contain a distribution of droplet sizes and diameters of less than 50 microns will be present. Actually these smaller ''cloud droplets'' may be present, that is, they are not always there. The FAA prefers to include the ''visible cloud'' requirement, which implies substantial numbers of cloud droplets and is what differentiates this condition from ''Icing in Precipitation.''

The FAA concurs with most of the remaining comments and the definition has been revised in the notice.

34. Reword the Definition of ''Supercooled Large Droplets'' for Improved Clarity, Accuracy, Utility, and Consistency With Other Terms

The FAA concurs and proposes the definition has been revised in the notice.

Note: The new definition provides a definition of an atmospheric phenomenon and is considered sufficient without reference to icing standards or possible effects on aircraft safety. The terms ''FZRA'' and ''FZDZ'' are used by weather providers to indicate SLD icing conditions.

35. Request To Delete ''Supercooled Drizzle Drops'' From List of Defined Terms

One commenters requested that the FAA delete the term ''Supercooled Drizzle Drops'' from the list because the term has had only limited use.

The FAA does not concur. Although it is true that the term has not appeared extensively, it has appeared with sufficient frequency to justify inclusion in the notice.

36. Request To Expand Definition of ''Appendix C Icing Conditions''

One commenter requested that the FAA include in the final notice a definition of ''Appendix C Icing Conditions'' expanded to include and explain variables used in defining the icing envelopes.

The FAA concurs that identification of these variables is appropriate in the notice, and the definition has been expanded accordingly. However, technical explanation and use of these variables are addressed in FAA advisory circulars on certification.

37. Request To Include Additional Meteorological Terms in List of Defined Terms

One commenter requested that the FAA include ice crystals, hail, snow, sleet, graupel, and related meteorological terms in the list of definitions.

The FAA does not concur. During the 1996 FAA icing conference the FAA was given the task of redefining those icing terms that, in the judgement of the FAA, were either confusing or were otherwise in need of clarification. The terms proposed for redefinition and clarification are those icing terms which fit the criteria expressed in the FAA Icing Plan developed using the recommendations from the conference.

The FAA does not agree that the terms proposed by the commenter are confusing or are unclear so as to require redefinition.

38. Request for Removal of Contradictions in CFR Material Pertaining to Severe Icing

One commenter requested that the FAA remove contradictions that exist in the CFR material (in particular, with respect to usage of term ''severe icing''), so that the material presented in the docket does not continue to sanction these contradictions.

Atmospheric icing conditions are highly variable and can exceed in-flight icing standards defined by the airplane airworthiness requirements. Therefore, the FAA concurs, and plans to revise the FARs which are in conflict with the proposed definition of severe icing. The National Weather Service, however, is required to forecast and report severe atmospheric conditions, including thunderstorms and severe icing. Pilot reports, experience, and other parameters are used by meteorologists to define severe icing conditions, regardless of airplane ice protection provisions, size, or performance. Severe icing conditions for small airplanes may not be severe for large air transports. The FAA will provide the requirement that the National Weather Service replace the term ''severe icing'' with ''heavy icing.'' Resolution of the terminology conflict requires that the FAA regulations be revised and successful collaboration with the National Weather Service be achieved.

39. Request To Include ''Sandpaper Ice'' in List of Defined Terms

Several commenters requested that the term ''sandpaper ice,'' as defined in Advisory Circular AC 25–7A, Para. 20(a)(3), be added to the list of definitions.

The FAA does not concur. The notice is intended as a compendium of operational definitions. Inclusion of a technical term pertaining to the certification of aircraft is deemed inappropriate in this compendium.

40. Request To Include ''Runback Ice'' and ''Residual Ice'' in List of Defined Terms

The FAA concurs. Definitions of runback ice, residual ice, and inter-cycle ice have been added to the notice.

41. Include ''Supercooled Liquid Water'' in List. Use Term Exclusively

One commenter requested that the term ''supercooled liquid water'' be included in the list of definitions and that this term be used exclusively where there are currently references to ''supercooled liquid water,'' ''supercooled water drop,'' or ''supercooled water droplets.''

The FAA partially concurs. The term ''supercooled drops/droplets'' will be adopted as equivalent to ''supercooled liquid'' and ''supercooled liquid water drops.'' The term ''supercooled drops/droplets'' has been added to the list of definitions and references to ''supercooled liquid water'' and ''supercooled liquid water drops'' have been deleted.

Conclusion

After consideration of the comments submitted in response to the notice of intent, the FAA has determined that the icing terminology, as amended following review of the comments, does not conflict with the current regulations and the criteria set forth in the FAA Icing Plan.

Issued in Washington, DC, on April 30, 2003.

Louis C. Cusimano,

Deputy Director, Flight Standards Service.

[FR Doc. 03–11237 Filed 5–6–03; 8:45 am]

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DEPARTMENT OF TRANSPORTATION

Surface Transportation Board

[STB Finance Docket No. 34117]

Pemiscot County Port Authority—Construction Exemption—Pemiscot County, MO

AGENCY: Surface Transportation Board, Transportation.

ACTION: Notice of availability of Environmental Assessment and request for comments.

SUMMARY: The Surface Transportation Board's (Board) Section of Environmental Analysis (SEA) has prepared an Environmental Assessment (EA) in response to a petition filed by the Pemiscot County Port Authority. The petition seeks an exemption under 49 U.S.C. 10502 from the prior approval requirements of 49 U.S.C. 10901 for authority to construct and operate a rail line between Hayti, Missouri and the Pemiscot Port. The EA identifies the natural and man-made resources in the area of the proposed rail line and analyzes the potential impacts of the rail line construction and operation on these resources. Based on the information provided from all sources to date and its independent analysis, SEA preliminarily concludes that construction and operation of the proposed rail line would have no significant environmental impacts if the Board imposes and the Pemiscot County Port Authority implements the recommended mitigation measures set forth in this EA. Copies of the EA have been served on all interested parties and will be made available to additional parties upon request. The entire EA is also available on the Board's Web site (*http://www.stb.dot.gov*) by clicking on the ''Decisions'' button and searching by service date (May 7, 2003) or Docket Number (FD 34117). SEA will consider all comments received when making its final environmental recommendations to the Board. The Board will then consider SEA's final recommendations and the complete environmental record in making its final decision in this proceeding.

DATES: The EA is available for public review and comment. Comments must be postmarked June 6, 2003.

ADDRESSES: Comments (an original and 10 copies) should be sent in writing to: Surface Transportation Board, Case Control Unit, 1925 K Street, NW., Washington, DC 20423. The lower left corner of the envelope should be marked: Attention: Mr. David Navecky, Environmental Comments, Finance Docket No. 34117.

FOR FURTHER INFORMATION CONTACT: David Navecky by mail at the address above, by telephone at (202) 565–1593 (FIRS for the hearing impaired (1–800–877–8339)), or by e-mail at *naveckyd@stb.dot.gov.*

By the Board, Victoria Rutson, Chief, Section of Environmental Analysis.

Vernon A. Williams,

Secretary.

[FR Doc. 03–11151 Filed 5–6–03; 8:45 am]

BILLING CODE 4910–00–P

DEPARTMENT OF TRANSPORTATION

Surface Transportation Board

[STB Docket No. AB–355 (Sub–No. 27X)]

Springfield Terminal Railway Company—Discontinuance of Service Exemption—Portion of Bemis Branch, in Middlesex County, MA

Springfield Terminal Railway Company (ST) has filed a notice of exemption under 49 CFR 1152 Subpart F—*Exempt Abandonments and Discontinuances* to discontinue service over a 2.11-mile line of railroad [1] known as the Bemis Branch extending from milepost 8.83 to milepost 10.94,[2] in Waltham and Watertown, Middlesex County, MA. The line traverses United States Postal Service Zip Codes 02451 and 02472.

ST has certified that: (1) No local traffic has moved over the line for at least 2 years; (2) there is no overhead traffic to be rerouted; (3) no formal complaint filed by a user of rail service on the line (or by a state or local government entity acting on behalf of such user) regarding cessation of service over the line either is pending with the Surface Transportation Board (Board) or with any U.S. District Court or has been decided in favor of complainant within the 2-year period; and (4) the requirements at 49 CFR 1105.7 (environmental reports), 49 CFR 1105.8 (historic reports), 49 CFR 1105.11 (transmittal letter), 49 CFR 1105.12 (newspaper publication), and 49 CFR 1152.50(d)(1) (notice to governmental agencies) have been met.

As a condition to this exemption, any employee adversely affected by the discontinuance shall be protected under *Oregon Short Line R. Co.—Abandonment—Goshen,* 360 I.C.C. 91 (1979). To address whether this condition adequately protects affected employees, a petition for partial revocation under 49 U.S.C. 10502(d) must be filed.

Provided no formal expression of intent to file an offer of financial assistance (OFA) has been received, this exemption will be effective on June 6, 2003,[3] unless stayed pending reconsideration. Petitions to stay that do not involve environmental issues and formal expressions of intent to file an OFA under 49 CFR 1152.27(c)(2),[4] must be filed by May 19, 2003. Petitions to reopen must be filed by May 27, 2003, with the Surface Transportation Board, 1925 K Street, NW., Washington, DC 20423–0001.

A copy of any petition filed with the Board should be sent to ST's representative: Katherine E. Potter, Esq.,

[1] ST acquired its leasehold interest in the line from Boston and Maine Corporation (B&M), an affiliate of ST, in *D&H Ry—Lease & Trackage Rights Exemp. Springfield Term.,* 4 I.C.C.2d 322 (1988). ST states that, prior to the effective date of this discontinuance, title to the line was or will be acquired by third parties.

[2] B&M was authorized to abandon the line in *Boston and Maine Corporation—Abandonment—in Middlesex County, MA,* STB Docket No. AB–32 (Sub-No. 89) (STB served Aug. 16, 2000), and consummated the abandonment in June 2001. By letter filed on April 30, 2003, ST supplemented its notice of exemption to explain that it did not seek approval to discontinue its operations at the time of the B&M abandonment because it was unaware that such approval was required.

[3] Because this is a discontinuance proceeding and not an abandonment, trail use/rail banking and public use conditions are not appropriate. Likewise, no environmental or historic documentation is required under 49 CFR 1105.6(c) and 1105.8. Nevertheless, ST filed an environmental report with its notice. The Board's Section of Environmental Analysis (SEA) issued an environmental assessment on May 31, 2000, in connection with B&M's abandonment of the line.

[4] Each OFA must be accompanied by the filing fee, which currently is set at $1,100. *See* 49 CFR 1002.2(f)(25).