conditions would also apply to the other model under § 21.101.

In addition to the applicable airworthiness regulations and special conditions, the Embraer S.A. Model EMB–550 airplane must comply with the fuel vent and exhaust emission requirements of 14 CFR part 34 and the noise certification requirements of 14 CFR part 36 and the FAA must issue a finding of regulatory adequacy under § 611 of Public Law 92–574, the ''Noise Control Act of 1972.''

The FAA issues special conditions, as defined in 14 CFR 11.19, in accordance with § 11.38, and they become part of the type-certification basis under § 21.17(a)(2).

Novel or Unusual Design Features

The Embraer S.A. Model EMB–550 airplane will incorporate the following novel or unusual design features: The Model EMB–550 airplane has a hydrophobic coating on the windshield to provide adequate pilot compartment view in precipitation in lieu of windshield wipers.

Discussion

14 CFR 25.773(b)(1) requires a means to maintain a clear portion of the windshield for both pilots to have a sufficiently extensive view along the flight path during precipitation conditions. The regulations require this means to maintain such an area during precipitation in heavy rain at speeds up to 1.5 V_{SR1}. The requirement that the means to maintain a clear area of forward vision must function at high speeds and high precipitation rates is based on the use of windshield wipers as the means to maintain an adequate area of clear vision in precipitation conditions. The requirement in 14 CFR 121.313(b), and in 14 CFR 125.213(b), to provide ''a windshield wiper or equivalent for each pilot station'' has remained unchanged since at least 1953.

The effectiveness of windshield wipers to maintain an area of clear vision normally degrades as airspeed and precipitation rates increase. It is assumed that because high speeds and high precipitation rates represent limiting conditions for windshield wipers, they will also be effective at lower speeds and precipitation levels. Accordingly, § 25.773(b)(1)(i) does not require maintenance of a clear area of forward vision at lower speeds or lower precipitation rates.

A forced airflow blown directly over the windshield has also been used to maintain an area of clear vision in precipitation. The limiting conditions for this technology are comparable to those for windshield wipers. Accordingly, introduction of this technology did not present a need for special conditions to maintain the level of safety embodied in the existing regulations.

Hydrophobic windshield coatings may depend to some degree on airflow directly over the windshield to maintain a clear vision area. The heavy rain and high-speed conditions specified in the current rule do not necessarily represent the limiting conditions for this new technology. For example, airflow over the windshield, which may be necessary to remove moisture from the windshield, may not be adequate to maintain a sufficiently clear area of the windshield in low speed flight or during ground operations. Alternatively, airflow over the windshield may be disturbed during such critical times as the approach to land, where the airplane is at a higher than normal pitch attitude. In these cases, areas of airflow disturbance or separation on the windshield could cause failure to maintain a clear vision area on the windshield.

In addition to potentially depending on airflow to function effectively, hydrophobic coatings may also be dependent on water droplet size for effective precipitation removal. For example, precipitation in the form of a light mist may not be sufficient for the coating's properties to result in maintaining a clear area of vision.

In summary, the current regulations identify speed and precipitation rate requirements that represent limiting conditions for windshield wipers and blowers, but not for hydrophobic coatings, so it is necessary to issue special conditions to maintain the level of safety represented by the current regulations.

These special conditions provide an appropriate safety standard for the hydrophobic coating technology as the means to maintain a clear area of vision by requiring it to be effective at low speeds and precipitation rates as well as the higher speeds and precipitation rates identified in the current regulation.

Applicability

As discussed above, these special conditions are applicable to the Embraer S.A. Model EMB–550 airplane. Should Embraer S.A. apply at a later date for a change to the type certificate to include another model incorporating the same novel or unusual design feature, the special conditions would apply to that model as well.

Conclusion

This action affects only certain novel or unusual design features on one model of airplanes. It is not a rule of general applicability.

List of Subjects in 14 CFR Part 25

Aircraft, Aviation safety, Reporting and recordkeeping requirements.

The authority citation for these special conditions is as follows:

Authority: 49 U.S.C. 106(g), 40113, 44701, 44702, 44704.

The Proposed Special Conditions

Accordingly, the Federal Aviation Administration (FAA) proposes the following special conditions as part of the type certification basis for Embraer S.A. Model EMB–550 airplanes.

Hydrophobic Coatings in Lieu of Windshield Wipers

The airplane must have a means to maintain a clear portion of the windshield, during precipitation conditions, enough for both pilots to have a sufficiently extensive view along the ground or flight path in normal taxi and flight attitudes of the airplane. This means must be designed to function, without continuous attention on the part of the flightcrew, in conditions from light misting precipitation to heavy rain at speeds from fully stopped in still air, to 1.5 V_{SR1} with lift and drag devices retracted.

Issued in Renton, Washington, on November, 5, 2012.

Ali Bahrami,

Manager, Transport Airplane Directorate, Aircraft Certification Service.

[FR Doc. 2012–27373 Filed 11–8–12; 8:45 am]

BILLING CODE 4910–13–P

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 25

[Docket No. FAA–2012–1199; Notice No. 25–12–06–SC]

Special Conditions: Embraer S.A., Model EMB–550 Airplanes; Flight Envelope Protection: Performance Credit for Automatic Takeoff Thrust Control System (ATTCS) During Go-Around

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Notice of proposed special conditions.

SUMMARY: This action proposes special conditions for the Embraer S.A. Model

EMB–550 airplane. This airplane will have a novel or unusual design feature(s) associated with the use of an Automatic Takeoff Thrust Control System (ATTCS) during go-around. The applicable airworthiness regulations do not contain adequate or appropriate safety standards for this design feature. These proposed special conditions contain the additional safety standards that the Administrator considers necessary to establish a level of safety equivalent to that established by the existing airworthiness standards.

DATES: Send your comments on or before December 24, 2012.

ADDRESSES: Send comments identified by docket number FAA–2012–1199 using any of the following methods:

- *Federal eRegulations Portal:* Go to *http://www.regulations.gov/* and follow the online instructions for sending your comments electronically.
- *Mail:* Send comments to Docket Operations, M–30, U.S. Department of Transportation (DOT), 1200 New Jersey Avenue SE., Room W12–140, West Building Ground Floor, Washington, DC 20590–0001.
- *Hand Delivery or Courier:* Take comments to Docket Operations in Room W12–140 of the West Building Ground Floor at 1200 New Jersey Avenue SE., Washington, DC, between 8 a.m. and 5 p.m., Monday through Friday, except federal holidays.
- *Fax:* Fax comments to Docket Operations at 202–493–2251.

Privacy: The FAA will post all comments it receives, without change, to *http://www.regulations.gov/,* including any personal information the commenter provides. Using the search function of the docket web site, anyone can find and read the electronic form of all comments received into any FAA docket, including the name of the individual sending the comment (or signing the comment for an association, business, labor union, etc.). DOT's complete Privacy Act Statement can be found in the **Federal Register** published on April 11, 2000 (65 FR 19477–19478), as well as at *http://DocketsInfo.dot.gov/.*

Docket: Background documents or comments received may be read at *http://www.regulations.gov/* at any time. Follow the online instructions for accessing the docket or go to the Docket Operations in Room W12–140 of the West Building Ground Floor at 1200 New Jersey Avenue SE., Washington, DC, between 9 a.m. and 5 p.m., Monday through Friday, except federal holidays.

FOR FURTHER INFORMATION CONTACT: Joe Jacobsen, FAA, Airplane and Flight Crew Interface Branch, ANM–111, Transport Airplane Directorate, Aircraft Certification Service, 1601 Lind Avenue SW., Renton, Washington, 98057–3356; telephone 425–227–2011; facsimile 425–227–1149.

SUPPLEMENTARY INFORMATION:

Comments Invited

We invite interested people to take part in this rulemaking by sending written comments, data, or views. The most helpful comments reference a specific portion of the special conditions, explain the reason for any recommended change, and include supporting data.

We will consider all comments we receive on or before the closing date for comments. We may change these special conditions based on the comments we receive.

Background

On May 14, 2009, Embraer S.A. applied for a type certificate for their new Model EMB–550 airplane. The Model EMB–550 airplane is the first of a new family of jet airplanes designed for corporate flight, fractional, charter, and private owner operations. The aircraft has a conventional configuration with low wing and T-tail empennage. The primary structure is metal with composite empennage and control surfaces. The Model EMB–550 airplane is designed for 8 passengers, with a maximum of 12 passengers. It is equipped with two Honeywell HTF7500–E medium bypass ratio turbofan engines mounted on aft fuselage pylons. Each engine produces approximately 6,540 pounds of thrust for normal takeoff. The primary flight controls consist of hydraulically powered fly-by-wire elevators, ailerons and rudder, controlled by the pilot or copilot sidestick.

Embraer S.A. has incorporated an ATTCS function into the engine of the Model EMB–550 airplane. It has a full authority digital electronic control system architecture. Embraer S.A. proposed allowing performance credit for this function during go-arounds to show compliance with the requirements of § 25.121(d) for approach climb performance. Since the airworthiness requirements do not contain appropriate safety standards for approach climb performance using ATTCS, special conditions are required to establish a level of safety equivalent to that of the regulations.

Part 25 appendix I contains standards for use of ATTCS during takeoff. These special conditions establish standards to extend the use of ATTCS to the go-around phase.

Type Certification Basis

Under the provisions of Title 14, Code of Federal Regulations (14 CFR) 21.17, Embraer S.A. must show that the Model EMB–550 airplane meets the applicable provisions of part 25, as amended by Amendments 25–1 through 25–127 thereto.

If the Administrator finds that the applicable airworthiness regulations (i.e., 14 CFR part 25) do not contain adequate or appropriate safety standards for the Model EMB–550 airplane because of a novel or unusual design feature, special conditions are prescribed under the provisions of § 21.16.

Special conditions are initially applicable to the model for which they are issued. Should the type certificate for that model be amended later to include any other model that incorporates the same or similar novel or unusual design feature, the special conditions would also apply to the other model under § 21.101.

In addition to the applicable airworthiness regulations and special conditions, the Model EMB–550 airplane must comply with the fuel vent and exhaust emission requirements of 14 CFR part 34 and the noise certification requirements of 14 CFR part 36 and the FAA must issue a finding of regulatory adequacy under § 611 of Public Law 92–574, the ''Noise Control Act of 1972.''

The FAA issues special conditions, as defined in 14 CFR 11.19, in accordance with § 11.38, and they become part of the type-certification basis under § 21.17(a)(2).

Novel or Unusual Design Features

The Embraer S.A. Model EMB–550 airplane has an ATTCS that is used for both takeoff and go-around functions.

Section 25.904 and part 25 appendix I refer to operations of ATTCS only during takeoff. The Embraer S.A. Model EMB–550 airplane also provides for use of ATTCS for go-arounds. As a result, if an engine failure occurs during a go-around, the remaining engine automatically applies maximum go-around thrust. In addition, in the case of an approach with one engine already inoperative, if it is necessary to perform a go-around, the operating engine automatically applies maximum go-around thrust.

These special conditions are intended to ensure that the ATTCS functions correctly and meets expected performance requirements during go-arounds when the airplane is limited by weight, altitude, and/or temperature during an approach.

Discussion

Since current airworthiness requirements do not contain safety standards to allow credit for ATTCS in determining approach climb performance, these special conditions are required to establish a level of safety equivalent to that of the regulations. The definition of a critical time interval for the approach climb case similar to the critical time interval for takeoff defined in part 25 appendix I is of primary importance. During an approach climb, it must be extremely improbable to violate a flight path based on the climb gradient requirement of § 25.121(d). This climb gradient requirement implies a minimum one-engine-inoperative flight path capability with the airplane in the approach configuration. The engine may have been inoperative before initiating the go-around, or it may become inoperative during the go-around. The definition of the critical time interval must consider both possibilities.

The propulsive thrust used to determine compliance with the approach climb requirements of § 25.121(d) is limited to the lesser of:

- The thrust provided by the ATTCS, or
- 111% of the thrust resulting from the initial thrust setting with the ATTCS failing to perform its uptrim function and without action by the flightcrew to reset thrust.

This requirement serves to limit the adverse performance effects of a combined engine and ATTCS failure, and ensures adequate performance of an all-engines-operating go-around.

Applicability

As discussed above, these special conditions are applicable to the Embraer S.A. Model EMB–550 airplane. Should Embraer S.A. apply at a later date for a change to the type certificate to include another model incorporating the same novel or unusual design feature, the special conditions would apply to that model as well.

Conclusion

This action affects only certain novel or unusual design features on one model of airplanes. It is not a rule of general applicability.

List of Subjects in 14 CFR Part 25

Aircraft, Aviation safety, Reporting and recordkeeping requirements.

The authority citation for these special conditions is as follows:

Authority: 49 U.S.C. 106(g), 40113, 44701, 44702, 44704.

The Proposed Special Conditions

Accordingly, the Federal Aviation Administration (FAA) proposes the following special conditions as part of the type certification basis for Embraer S.A. Model EMB–550 airplanes.

1. The Model EMB–550 airplane must comply with the requirements of 14 CFR 25.904 and appendix I to 14 CFR part 25 and the following requirements pertaining to the go-around phase of flight:

2. Definitions

a. Takeoff/go-around (TOGA): throttle lever in takeoff or go-around position.

b. Automatic takeoff thrust control system (ATTCS): the ATTCS in Model EMB–550 airplanes is defined as the entire automatic system available during takeoff and in go-around mode, including all devices, both mechanical and electrical, that sense engine failure, transmit signals, actuate fuel controls or power levers (or increase engine power by other means on operating engines to achieve scheduled thrust or power increase), and furnish cockpit information on system operation.

c. Critical time interval: the definition of the critical time interval in 14 CFR appendix I 25.2(b) must be expanded to include the following:

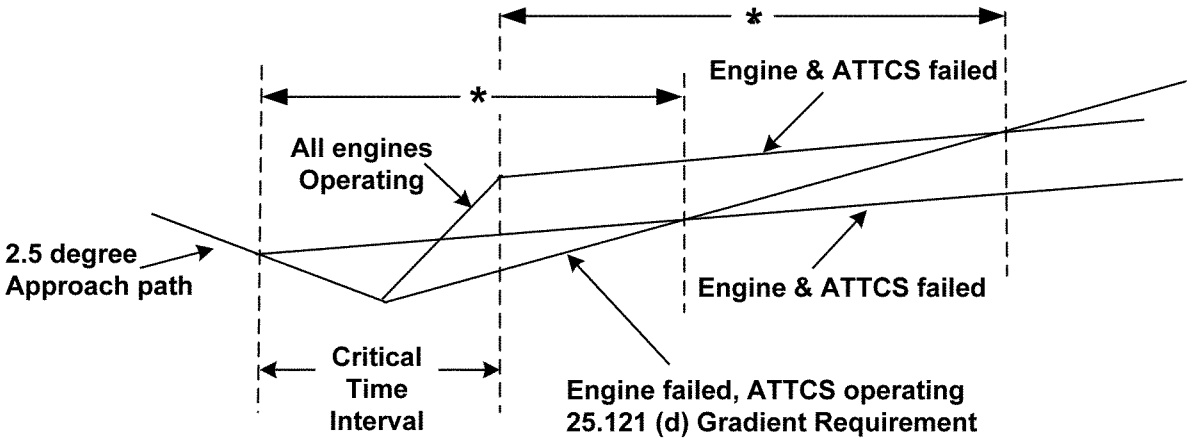
i. When conducting an approach for landing using ATTCS, the critical time interval is defined as follows:

a. The critical time interval *begins* at a point on a 2.5 degree approach glide path from which, assuming a simultaneous engine and ATTCS failure, the resulting approach climb flight path intersects a flight path originating at a later point on the same approach path corresponding that corresponds to the 14 CFR part 25 one-engine-inoperative approach climb gradient. The period of time from the point of simultaneous engine and ATTCS failure to the intersection of these flight paths must be no shorter than the time interval used in evaluating the critical time interval for takeoff beginning from the point of simultaneous engine and ATTCS failure and ending upon reaching a height of 400 feet.

b. The critical time interval *ends* at the point on a minimum performance, all-engines-operating go-around flight path from which, assuming a simultaneous engine and ATTCS failure, the resulting minimum approach climb flight path intersects a flight path corresponding to the 14 CFR part 25 minimum one-engine-inoperative approach climb gradient. The all-engines-operating go-around flight path and the 14 CFR part 25 one-engine-inoperative approach climb gradient flight path originate from a common point on a 2.5 degree approach path. The period of time from the point of simultaneous engine and ATTCS failure to the intersection of these flight paths must be no shorter than the time interval used in evaluating the critical time interval for the takeoff beginning from the point of simultaneous engine and ATTCS failure and ending upon reaching a height of 400 feet.

ii. The critical time interval must be determined at the altitude resulting in the longest critical time interval for which one-engine-inoperative approach climb performance data are presented in the airplane flight manual (AFM).

iii. The critical time interval is illustrated in the following figure:



*** The engine and ATTCS failed time interval must be no shorter than the time interval from the point of simultaneous engine and ATTCS failure to a height of 400 feet used to comply with I25.2(b) for ATTCS use during takeoff.**

3. Performance and system reliability requirements: The applicant must comply with the performance and ATTCS reliability requirements as follows:

a. An ATTCS failure or a combination of failures in the ATTCS during the critical time interval:

i. Must not prevent the insertion of the maximum approved go-around thrust or power, or must be shown to be a remote event.

ii. Must not result in a significant loss or reduction in thrust or power, or must be shown to be an extremely improbable event.

b. The concurrent existence of an ATTCS failure and an engine failure during the critical time interval must be shown to be extremely improbable.

c. All applicable performance requirements of 14 CFR part 25 must be met with an engine failure occurring at the most critical point during go-around with the ATTCS functioning.

d. The probability analysis must include consideration of ATTCS failure occurring after the time at which the flightcrew last verifies that the ATTCS is in a condition to operate until the beginning of the critical time interval.

e. The propulsive thrust obtained from the operating engine after failure of the critical engine during a go-around used to show compliance with the one-engine-inoperative climb requirements of § 25.121(d) may not be greater than the lesser of:

i. The actual propulsive thrust resulting from the initial setting of power or thrust controls with the ATTCS functioning; or

ii. 111% of the propulsive thrust resulting from the initial setting of power or thrust controls with the ATTCS failing to reset thrust or power and without any action by the flightcrew to reset thrust or power.

4. Thrust setting

a. The initial go-around thrust setting on each engine at the beginning of the go-around phase may not be less than any of the following:

i. That required to permit normal operation of all safety-related systems and equipment dependent upon engine thrust or power lever position; or

ii. That shown to be free of hazardous engine response characteristics and not to result in any unsafe aircraft operating or handling characteristics when thrust or power is advanced from the initial go-around position to the maximum approved power setting.

b. For approval to use an ATTCS for go-arounds, the thrust setting procedure must be the same for go-arounds initiated with all engines operating as for go-around initiated with one engine inoperative.

5. Powerplant controls

a. In addition to the requirements of § 25.1141, no single failure or malfunction, or probable combination thereof, of the ATTCS, including associated systems, may cause the failure of any powerplant function necessary for safety.

b. The ATTCS must be designed to:

i. Apply thrust or power on the operating engine(s), following any one-engine failure during a go-around, to achieve the maximum approved go-around thrust without exceeding the engine operating limits;

ii. Permit manual decrease or increase in thrust or power up to the maximum go-around thrust approved for the airplane under the existing conditions through the use of the power lever. For airplanes equipped with limiters that automatically prevent the engine operating limits from being exceeded under existing ambient conditions, other means may be used to increase the thrust in the event of an ATTCS failure, provided that the means:

1. Is located on or forward of the power levers;

2. Is easily identified and operated under all operating conditions by a single action of either pilot with the hand that is normally used to actuate the power levers; and

3. Meets the requirements of § 25.777(a), (b), and (c).

iii. Provide a means to verify to the flightcrew before beginning an approach for landing that the ATTCS is in a condition to operate (unless it can be demonstrated that an ATTCS failure combined with an engine failure during an entire flight is extremely improbable); and

iv. Provide a means for the flightcrew to deactivate the automatic function. This means must be designed to prevent inadvertent deactivation.

6. Powerplant instruments: In addition to the requirements of § 25.1305:

a. A means must be provided to indicate when the ATTCS is in the armed or ready condition; and

b. If the inherent flight characteristics of the airplane do not provide adequate warning that an engine has failed, a warning system that is independent of the ATTCS must be provided to give the pilot a clear warning of any engine failure during a go-around.

Issued in Renton, Washington, on November 5, 2012.

Ali Bahrami,

Manager, Transport Airplane Directorate, Aircraft Certification Service.

[FR Doc. 2012–27372 Filed 11–8–12; 8:45 am]

BILLING CODE 4910–13–P

DEPARTMENT OF LABOR

Occupational Safety and Health Administration

29 CFR Part 1926

[Docket ID–OSHA–2012–0025]

RIN 1218–AC75

Revising the Exemption for Digger Derricks in the Cranes and Derricks in Construction Standard

AGENCY: Occupational Safety and Health Administration (OSHA); Labor.

ACTION: Notice of proposed rulemaking.

SUMMARY: OSHA is broadening the exemption for digger derricks in its standard for cranes and derricks. OSHA issued a final standard updating the requirements for cranes and derricks on August 9, 2010, and the Edison Electric Institute (EEI) petitioned for review of the standard in the United States Court of Appeals. After petitioning, EEI provided OSHA with new information regarding digger derricks. OSHA reviewed the additional information and the rulemaking record, and decided to broaden the exemption for digger derricks used in the electric-utility industry by means of this proposed rule.

DATES: Comment by December 10, 2012. All submissions, whether transmitted, mailed, or delivered, must bear a postmark or provide other evidence of the submission date.

ADDRESSES: Submit comments (including comments to the information-collection (paperwork) determination described under the section titled AGENCY DETERMINATIONS), hearing requests, and other information and materials, identified by Docket No. OSHA–2012–0025, by any of the following methods:

Electronically: Submit comments and attachments electronically at *http://www.regulations.gov,* which is the Federal eRulemaking Portal. Follow the instructions online for submitting comments.

Facsimile: OSHA allows facsimile transmission of comments that are 10 pages or fewer in length (including attachments). Fax these documents to the OSHA Docket Office at (202) 693–1648; OSHA does not require hard copies of these documents. Instead of transmitting facsimile copies of attachments that supplement these documents (*e.g.,* studies, journal articles), commenters must submit these attachments to the OSHA Docket Office, Technical Data Center, Room N–2625, OSHA, U.S. Department of Labor, 200 Constitution Ave., NW., Washington, DC 20210. These attachments must clearly identify the sender's name, the date, and the docket number (OSHA–2012–0025), so that the Docket Office can attach them to the appropriate document.

Regular or express mail, hand delivery, or messenger (courier) service: Submit comments and any additional information or material to the OSHA Docket Office, Docket No. OSHA–2012–0025 or RIN No. 1218–AC75, Technical Data Center, Room N–2625, OSHA, U.S. Department of Labor, 200 Constitution Ave., NW., Washington, DC 20210; telephone: (202) 693–2350. (OSHA's TTY number is (877) 889–5627.) Contact the OSHA Docket Office for information about security procedures concerning delivery of materials by express mail, hand delivery, and messenger service. The Docket Office will accept deliveries (express mail, hand delivery, and messenger service) during the Docket Office's normal business hours, 8:15 a.m. to 4:45 p.m. ET.

Docket: To read or download comments or other information or material in the docket, go to *http://www.regulations.gov* or to the OSHA Docket Office at the address above. Documents in the docket are listed in the *http://www.regulations.gov* index; however, some information (*e.g.,* copyrighted material) is not available publicly to read or download through this Web site. All submissions, including copyrighted material, are available for inspection at the OSHA Docket Office. Contact the OSHA Docket Office for assistance in locating docket submissions.

FOR FURTHER INFORMATION CONTACT: *General information and press inquiries:* Mr. Frank Meilinger, Director, OSHA Office of Communications, Room N–3647, U.S. Department of Labor, 200 Constitution Avenue NW., Washington, DC 20210; telephone: (202) 693–1999; email: *meilinger.francis2@dol.gov.*

Technical inquiries: Mr. Garvin Branch, Directorate of Construction, Room N–3468, OSHA, U.S. Department of Labor, 200 Constitution Avenue NW., Washington, DC 20210; telephone: (202) 693–2020; fax: (202) 693–1689; email: *branch.garvin@dol.gov.*

For copies of this Federal Register notice, news releases, and other relevant document: Electronic copies of these documents are available at OSHA's Web page at *http://www.osha.gov.*

SUPPLEMENTARY INFORMATION:

Table of Contents

I. Request for Comment

OSHA requests comments on all issues related to this proposed rule, including economic, paperwork, or other regulatory impacts of this rule on the regulated community. If OSHA receives no significant adverse comment to either this proposal or the direct final rule, OSHA will publish a **Federal Register** document confirming the effective date of the direct final rule and withdrawing this companion proposed rule published in the ''Proposed Rules'' section of today's **Federal Register**. Such confirmation may include minor stylistic or technical changes to the document. For the purpose of judicial review, OSHA views the date of confirmation of the effective date of this direct final rule as the date of promulgation.

II. Direct Final Rulemaking

In direct final rulemaking, an agency publishes a direct final rule in the **Federal Register** with a statement that the rule will go into effect unless the agency receives significant adverse comment within a specified period. The agency may publish an identical proposed rule at the same time. If the agency receives no significant adverse comment in response to the direct final rule, the rule goes into effect. OSHA typically confirms the effective date of a direct final rule through a separate **Federal Register** notice. If the agency receives a significant adverse comment, the agency withdraws the direct final rule and treats such comment as a