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UNITED STATES NUILEAR REGULATORY COMMISSION WASHINGTON, D. C. 20555

MAR 1 1 1993

MEMORANDUM	FOR:	Robert	Μ.	Bernero,	Director	r			
		Office	of	Nuclear	Material	Safety	and	Safeguards	

Thomas E. Murley, Director Office of Nuclear Reactor Regulation

Martin G. Malsch, Deputy General Counsel for Licensing

FROM: Clemens J. Heltemes, Deputy Director for Generic Issues and Rulemaking Office of Nuclear Regulatory Research

SUBJECT: OFFICE CONCURRENCE ON INITIATION OF RULEMAKING FOR 10 CFR PART 20

The enclosed rule initiation package is provided for parallel division and office ranked nd concurrence. This action is being expedited in order that any ensuing rule and might be completed near the date scheduled for mandatory implementations in the enew 10 CFR part 20.

Please provide your communent and concurrence on the enclosed rulemaking initiation package to me by March 19, 1993.

The following is a summary of this request:

- 1. Title: Standards for Protection against Radiation
- 2. RES Contact: Alan Roecklein (301) 492-3740
- Requested Action: Review and provide comments and concurrence.
- 4. Due Date: March 19, 1993

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 Cognizant Individuals: NRR/PRPB: Lemoine Cunningham NMSS/PRAB: Richard Cunningham

Clemens J. Heltemes, Deputy Director for Generic Issues and Rulemaking Office of Nuclear Regulatory Research Contraction of the second

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MEMORANDUM FOR:

FROM:

SUBJECT:

James M. Taylor Executive Director for Operations Eric S. Beckjord, Director Office of Nuclear Regulatory Research NITIATION OF RULEMAKING - AMO O TO DELETE CONTROLLED DOSE LIMITS TO NOTATE RADIATION PROTECTION IS REQUIRED x an assigned duties,

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The revised 10 CER Part 20, Standards for Protection Against Radiation, was published to be effective June 20, 1991, with mandatory compliance by January 1, 1994. The revised Part 20 defines a "Controlled Area" as an area, access to which could be limited for any reason. In addition, "Occupational Dose" is defined as the dose received in a restricted area or in the course of employment. The staff has become aware through its discussions with NRR, NMSS, regional staff, agreement states, and licensees that these definitions have led to some confusion.

Some licensees have interpreted the revised Part 20 to permit the use of the term "Controlled Area" for controlling access for any purpose, including radiation protection. This is not the intent of the rule. The intent of the revised Part 20 is that any area for which access is controlled for radiation protection is, by definition, a "Restricted Area". The term "Controlled Area" was added to acknowledge that licensees might choose to restrict access to an end of area for reasons other than radiation protection.

exposed, can receive dose while performing tasks which were not assigned, which is not occupational exposure. This would not be applied to occupational limits if the dose were received outside the restricted area. This, too, was not the intent of the rule. By eliminating the phrases "in a restricted area or" and "the individual's assigned duties" from the definition of Occupational Dose, this confusion can be eliminated. In addition, "radiation (the correct a technical error in the rule text. Occupational dose then becomes dose received as a result of an individual's employment which tinvolves exposure to radiation and/or radioactive materials as was intended by the revised rule. non fremeral smules

Subject to your approval, I plan to initiate a high priority rulemaking to delete the definition of "Controlled Area" and make appropriate conforming revisions where the term is used in the revised Part 20. In addition, the rulemaking would revise the definition of "Occupational Dose" to delete . reference to the "restricted area" so that the occupational dose limit and its associated provisions, such as training and badging requirements, would apply

Cat any this while/an individual was engaged in activities that are licensed by the Commission, controlled by the licensee, and involve exposure to radiation and/or to radioactive material.

I believe that these changes will remedy the confusion associated with the revised Part 20 and will not have an adverse impact on the health and safety of workers or the public. Removing the implied requirement to establish Controlled Areas, and simplifying the definition and administration of occupational dose is considered to be a reduction of burden, will require no new procedures, and is thus not subject to backfit rule. I believe that this rule would be most useful if it is published in final form prior to January 1, 1994, which is the date when all licensees must implement the revised 10 CFR Part 20. I also believe that this action falls within the EDO's jurisdiction to authorize publication. The enclosed schedule reflects these assumptions.

> Eric S. Beckjord, Director Office of Nuclear Regulatory Research

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Enclosures:

- 1. Justification for Rulemaking
- 2. Regulatory Agenda Entry

JUSTIFICATION FOR RULEMAKING

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AMENDMENTS TO 10 CFR PARTS 19 AND 20 (20.1001 - 20.2401) TO DELETE CONCEPT OF CONTROLLED AREA AND TO APPLY OCCUPATIONAL DOSE LIMITS ONLY WHEN REQUIRED BY CONDITIONS OF EMPLOYMENT AND REVISE CRITERIA ON WHEN TRAINING IN RADIATION PROTECTION IS REQUIRED

The issues to be addressed by rulemaking:

, defines The new 10 CFR Part 20 provides for the designation of a Controlled Area, defined as "an area outside of a restricted area but inside the site boundary, access to which can be limited by the licensee for any reason." The new Part 20 also continues to define Occupational Dose as the dose received by an individual in a restricted area or in the course of employment. Part 19.12 requires instruction to workers working in or frequenting the restricted area. The staff has become aware that these provisions can lead to some confusion. For example, if members of the public enter a restricted area, they become subject to Occupational Dose limits - a member of the public could, by virtue of having entered a restricted area, receive up to 5 rem in a year. The definition of occupational dose also defines the circumstances when an employee could be subject to occupational dose limits while not performing "assigned duties." Thus, if an employee were to perform other duties which were not assigned, the worker could we subject to the public dose limits for that period. By definition, a "controlled area" is an area to which access is limited for any reason, not necessarily for reasons of radiation protection. The distinctions among controlled, restricted, and unrestricted areas are unclear. These definitions have lead to confusion on the part of NRC licensing and inspection personnel, agreement state personnel, and licensees.

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2. The necessity and urgency of addressing the issue:

Licensees, regional staff, and Agreement States have advised the staff that these definitions are confusing. This confusion needs to be addressed, and doing so by the mandatory implementation date of the revised Part 20, January 1, 1994, will facilitate its smooth and efficient implementation. Moreover, the staff has found it difficult to answer questions posed by the public regarding controlled area and occupational versus public dose limit provisions. The proposed changes will have no adverse impact on health and safety of workers or the public.

3. Alternatives to Rulemaking:

The source of confusion is inconsistent definitions in the revised Part 20. Were the matter one of interpretation or complexity, a Regulatory Guide could be an appropriate remedy. Moreover, were the matter one of a requirement unnecessarily burdensome or impractical for some licensees to implement, case-by-case exemptions from the requirement might be appropriate. However, in that the difficulty is inconsistency in the rule itself, the appropriate remedy is rulemaking.

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4. How the issue will be addressed through rulemaking:

In Section 20.1003, the definition of a "Controlled Area" will be deleted from the rule and the definition of "Occupational Dose" will be changed to delete references to assigned duties and the restricted area. The staff believes that the definitions of "restricted area" and "unrestricted area" are sufficient to limit access for purposes of radiation protection and that "Occupational Dose" can be received outside "restricted areas."

The definition of "Occupational Dose" would be changed to read as follows:

"Occupational Dose" means the dose received by an individual, engaged in activities licensed by the Commission and controlled by the licensee that involve exposure to radiation and/or to radioactive material/from licensed and/or unlicensed sources of radiation, whether in the possession of the licensee or other person. Occupational Dose does not include dose received from background radiation, as a patient from medical practices, from voluntary participation in medical research programs, or as a member of the general public."

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Conforming changes are necessary in the definitions of "Member of the public" and "Public Dose." Sections 20.1301(2)(b), 20.1302(a), 20.1801 and 20.1802 will require minor conforming amendments.

A conforming change will be made to 19.12 to delete the phrase "working in or frequenting any portion of a restricted area," and add the phrase "with the potential for receiving occupational dose".

The effect of these amendments would be to make clear that (1) individuals in the employ of a licensee (or licensee's contractor) would be subject to occupational dose limits and associated protection requirements and (2) members of the public would be limited to the public dose limit, irrespective of their location within the licensee's facility. In addition, the confusion over the establishment of a "controlled area" would be eliminated, and the present system of restricted and unrestricted areas retained. Licensees would be free to establish control of access to certain areas for reasons other than radiological protection if they choose, but these areas would not be defined in the regulations.

5. How the public, industry, and NRC will be affected by the rulemaking, including costs, benefits, occupational exposure, and resources:

Smooth and efficient implementation of the revised Part 20 will be facilitated by these changes.

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6. NRC Resources and timetable for the rulemaking:

It is estimated that 0.4 staff years of effort by RES and other offices will be expended over the next 8 months to complete this rulemaking.

Timetable

Division Review and Office Concurrence	April 30, 1993			
Proposed Rule to EDO	May 9, 1993 *			
75 Day Public Comment Period	June 14-Aug. 30, 1993			
Final Rule for Division Review and Office Concurrence	October 1, 1993			
Final Rule to EDO for Issuance	November 1, 1993			

*This schedule is based on an assumption that CRGR and ACRS will agree to defer review until after public comment.

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 TITLE:
 AMENDMENTS TO 10 CFR PARTS 19 AND 20: DELETE CONTROLLED AREA

 APPLY OCCUPATIONAL DOSE LIMITS ONLY TO WORKERS AND
 REVISE REGUIREMENTS FOR WHEN RADIATION PROTECTION TRAINING

 IS REQUIRED
 IS REQUIRED

CFR CITATION: 10 CFR PART 19.12 AND 20 (20.1001 - 20.2401)

ABSTRACT:

The revised 10 CFK Part 20, "Standards for Protection Against Radiation," was published May 21, 1991, effective June 20, 1991, and with mandatory compliance by January 1, 1994. The new regulations defined a "Controlled Area" as an area, access to which could be limited for any reason. In addition, "Occupational Dose" continued to be defined as the dose received in a restricted area or in the course of employment. The staff has become aware through its discussions with regional staff, Agreement States, and licensees, that these definitions are confusing. It would appear that in some cases members of the public could be subject to occupational dose limits. Employees of licensees could be exposed to radiation in their employment and be considered members of the public if their esposure occurred outside of their assigned duties. The distinction among controlled, restricted, and unrestricted areas and when the training under 19.12 is required can be unclear.

The proposed deletion of the term "Controlled Area" and change to the definition of occupational dose will have no adverse impact on health and safety of workers or the public.

Timetable:

Division Review and Office Concurrence April 30, 1993 May 9, 1993 * Proposed Rule to EDO June 14-Aug. 30, 1993 75 Day Public Comment Period Final Rule for Division Review and Office Concurrence October 1, 1993 November 1, 1993 Final Rule to EDO for Issuance

LEGAL AUTHORITY:

To be determined The Atomic Energy Act of 1154, the Energy rearganization Actor 1974, and the EFFECTS ON SMALL BUSINESS AND OTHER ENTITIES: A doministratic Procedure Expected to facilitate smooth and efficient implementation of revised Part 20 by all licensees, with no impact on health and safety of workers or public.

AGENCY CONTACT:

Alan K. Roecklein

Office of Nuclear Regulatory Research

*This schedule is based on an assumption that CRGR and ACRS will agree to defer review until after public comment.

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UNITED STATES NUCLEAR REGULATORY COMMISSION WASHINGTON, D.C. 20655-0001

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MEMORANDUM FOR: James M. Taylor Executive Director for Orerations

FROM:

Eric S. Beckjord, Director Office of Nuclear Regulatory Research

SUBJECT:

INITIATION OF RULEMAKING - AMENDMENTS TO 10 CFR PARTS 19 AND 20 TO DELETE CONTROLLED AREA, TO APPLY OCCUPATIONAL DOSE LIMITS TO WORKERS, AND TO REVISE CRITERIA ON WHEN RADIATION PROTECTION TRAINING IS REQUIRED

The revised 10 CFR Part 20, Standards for Protection Against Radiation, was published on May 21, 1991, with mandatory compliance by January 1, 1994. The revised Part 20 defines a "Controlled area" as an area, access to which could be limited for any reason. In addition, "Occupational dose" is defined as the dose received in a restricted area or in the course of employment in which the individuals assigned duties involve exposure to radiation and radioactive materials. The staff has become aware through its discussions between RES, NRR, NMSS, regional staff, agreement States, and licensees that these definitions have led to some confusion.

As a consequence of the present definition of controlled area, some licensees have established areas to which access is being controlled for purposes of radiation protection, but not considering these areas as restricted areas under the requirements of Part 20. Under Part 20, any area for which access is controlled for radiation protection is, by definition, a "Restricted Area." The term "Controlled Area" was added to acknowledge that licensees might choose to restrict access to an area for reasons other than radiation protection, although to do so is not a requirement. In any case, any area to which access is controlled for radiation protection must be considered a "restricted area" and subject to all the attendant Part 20 requirements.

Under the current Part 20 definition, an individual who is occupationally exposed yet never enters a restricted area, requires no training concerning radiation protection. Some licensees have interpreted the definition of occupational dose to mean that an individual is occupationally exposed only when in a restricted area. This, too, was not the intent of the rule. While not unique to the revised rule, this problem has come to light now because of the focus by licensees on compliance with new requirements. By eliminating the phrase "in a restricted area" from the definition of occupational dose, this confusion can be eliminated. In addition, "radiation and/or radioactive material" should replace "radiation and radioactive material" to correct a technical error in the rule text. With these changes, occupational dose would then become dose received as a result of an individual's employment which involves exposure to radiation and/or radioactive material, as was intended by the revised rule. James A. Taylor

These changes would also make it clear that a member of the public cannot be permitted to exceed the public dose limit just by entering a restricted area.

Subject to your approval, I plan to initiate a high priority rulemaking to delete the definition of "Controlled area" and make appropriate conforming revisions where the term is used in the revised Part 20. The statement of considerations will make it clear that licensees have the option of controlling access to areas for reasons other than radiation protection. In addition, the rulemaking would revise the definition of "Occupational dose" to delete reference to the "Restricted area" so that the occupational dose limit and its associated provisions, such as training and badging requirements, would apply to an individual who was engaged at any time in activities that are licensed by the Commission, controlled by the licensee, and involve exposure to radiation and/or to radioactive material. Section 19.12, "Instruction to Workers," will be revised so that training commensurate with the hazards present will be provided to all persons who will be occupationally exposed rather than just to individuals who will be working in or frequenting any portion of a restricted area.

I believe that these changes will remedy considerable confusion associated with the revised Part 20 and will not have an adverse impact on the health and safety of workers or the public. Removing the implied requirement to establish Controlled areas, and simplifying the definition and administration of occupational dose is considered to be a reduction of burden, will require no new procedures, and is thus not a backfit subject to the backfit rule. I believe that this rule would be most useful if it is published in final form prior to January 1, 1994, which is the date when all licensees must implement the revised 10 CFR Part 20. I also believe that this action falls within the EDO's jurisdiction to authorize publication. The enclosed schedule reflects these assumptions.

> Eric S. Beckjord, Director Office of Nuclear Regulatory Research

Enclosures:

1. Justification for Rulemaking

2. Regulatory Agenda Entry

PDR AE80-1

ENCLOSURE 1 JUSTIFICATION FOR RULEMAKING

1. 1. 1.

JUSTIFICATION FOR RULEMAKING

AMENDMENTS TO 10 CFR PARTS 19 AND 20 (\$ 20.1001 - \$ 20.2401) TO DELETE CONCEPT OF CONTROLLED AREA AND TO APPLY OCCUPATIONAL DOSE LIMITS ONLY WHEN REQUIRED BY CONDITIONS OF EMPLOYMENT AND REVISE CRITERIA ON WHEN TRAINING IN RADIATION PROTECTION IS REQUIRED

1. The issues to be addressed by rulemaking:

The revised 10 CFR Part 20, Standards for Protection Against Radiation, was published on May 21, 1991, with mandatory compliance by January 1, 1994. The revised Part 20 defines a "Controlled area" as an area, access to which could be limited for any reason. In addition, "Occupational dose" is defined as the dose received in a restricted area or in the course of employment in which the individuals assigned duties involve exposure to radiation and radioactive materials. The staff has become aware through its discussions between RES, NRR, NMSS, regional staff, agreement States, and licensees that these definitions have led to some confusion.

As a consequence of the present definition of controlled area, some licensees have established areas to which access is being controlled for purposes of radiation protection, but not considering these areas as restricted areas under the requirements of Part 20. Under Part 20, any area for which access is controlled for radiation protection is, by definition, a "Restricted Area." The term "Controlled Area" was added to acknowledge that licensees might choose to restrict access to an area for reasons other than radiation protection, although to do so is not a requirement. In any case, any area to which access is controlled for radiation protection must be considered a "restricted area" and subject to all the attendant Part 20 requirements.

Under the current Part 20 definition, an individual who is occupationally exposed yet never enters a restricted area, requires no training concerning radiation protection. Some licensees have interpreted the definition of occupational dose to mean that an individual is occupationally exposed only when in a restricted area. This, too, was not the intent of the rule. While not unique to the revised rule, this problem has come to light now because of the focus by licensees on compliance with new requirements. By eliminating the phrase "in a restricted area" from the definition of occupational dose, this confusion can be eliminated. In addition, "radiation and/or radioactive material" should replace "radiation and radioactive material" to correct a technical error in the rule text. With these changes, occupational dose would then become dose received as a result of an individual's employment which involves exposure to radiation and/or radioactive material, as was intended by the revised rule.

2. The necessity and urgency of addressing the issue:

Licensees, headquarters staff, regional staff, and agreement States have advised the staff that these definitions are confusing. This confusion needs to be addressed, and doing so by the mandatory implementation date of the revised Part 20, January 1, 1994, will facilitate its smooth and efficient implementation. Moreover, the staff has found it difficult to use the revised rule to provide satisfactory answers to questions posed by the public

regarding controlled area and occupational versus public dose limit provisions. The proposed changes will have no adverse impact on health and safety of workers or the public.

3. Alternatives to rulemaking:

The source of confusion is inconsistent definitions in the revised Part 20. Were the matter one of interpretation or complexity, a regulatory guide could be an appropriate remedy. Moreover, were the matter one of an implement, case-by-case exemptions from the requirement might be appropriate. However, in that the difficulty is inconsistency in the rule itself, and all licensees are affected by the provision, the appropriate remedy is rulemaking.

4. How the issue will be addressed through rulemaking:

In Section 20.1003, the definition of a "Control area" will be deleted from the rule. The statement of considerations will make it clear that a licensee has the option of controlling access to any area for reasons other than radiation protection. Likewise, the definition of "Occupational dose" will be changed to delete reference to accigned sections and the Restricted area. The staff believes that the definition of "Restricted area" and "Unrestricted area" are sufficient to limit access for purposes of radiation protection and that "Occupational dose" can be received outside "Restricted areas."

The definition of "Occupational dose" would be changed to read as follows:

"Occupational dose.means the dose received by an individual, engaged at any time in activities licensed by the Commission and controlled by the licensee that involve exposure to radiation and/or to radioactive material from licensed and/or unlicensed sources of radiation, whether in the possession of the licensee or other persons. Occupational dose does not include dose received from background radiation, as a patient from medical practices, from voluntary participation in medical research programs, or as a Member of the public."

Conforming changes are necessary in the definitions of "Member of the public" and "Public dose." Sections 20.1301(2)(b), 20.1302(a), 20.1801 and 20.1802 will require minor conforming amendments.

A conforming change will be made to Section 19.12 to delete the phrase "working in or frequenting any portion of a restricted area," and add the phrase "having the likelihood of receiving occupational dose."

The effect of these amendments would be to make clear that (1) individuals in the employ of a licensee (or licensee's contractor) would be subject to occupational dose limits and associated protection requirements and (2) members of the public would be limited to the public dose limit, irrespective of their location within the licensee's facility. In addition, the confusion over the establishment of a "Controlled area" would be

eliminated, and the present system of restricted and unrestricted areas retained. Licensees would be free to establish control of access to certain areas for reasons other than radiological protection if they choose, but these areas would not be defined in the regulations.

5. How the public, industry, and NRC will be affected by the rulemaking, including costs, benefits, occupational exposure, and resources:

Smooth and efficient implementation of the revised Part 20 will be facilitated by these changes. Removing the implied requirement to establish Controlled areas, and simplifying the definition and administration of occupational dose is considered to be a reduction of burden, will require no new procedure, and is thus not subject to the backfit rule.

6. NRC resources and timetable for the rulemaking:

It is estimated that 0.4 staff years of effort by RES and other offices will be expended over the next 8 months to complete this rulemaking.

<u>Timetable</u>

Discussion of Draft Rule Provisions	May 20, 1993
With Agreement States	
Division Review and Office Concurrence	May 30, 1993
Proposed Rule to EDO	June 9, 1993*
75-Day Public Comment Period	July 12-Sept 30, 1993
Final Rule for Division Review and Office Concurrence	November 1, 1993
Final Rule to EDO for Issuance	December 1, 1993

*This schedule is based on an assumption that CRGR and ACRS will agree to defer review until after public comment.

REGULATORY AGENDA ENTRY

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AE 80-1

TITLE: AMENDMENTS TO 10 CFR PARTS 19 AND 20: DELETE CONTROLLED AREA APPLY OCCUPATIONAL DOSE LIMITS ONLY TO WORKERS AND REVISE CRITERIA ON WHEN RADIATION PROTECTION TRAINING IS REQUIRED

CFR CITATION: 10 CFR PART 19 AND 20 (\$ 20.1001 - \$ 20.2401)

The revised 10 CFR Part 20, Standards for Protection Against Radiation. was published on May 21, 1991, with mandatory compliance by January 1, 1994. The revised Part 20 defines a "Controlled area" as an area, access to which could be limited for any reason. In addition, "Occupational dose" is defined as the dose received in a restricted area or in the course of employment in which the individuals assigned duties involve exposure to radiation and radioactive materials. The staff has become aware through its discussions between RES, NRR, NMSS, regional staff, agreement States, and licensees that these definitions have led to some confusion.

As a consequence of the present definition of controlled area, some licensees have established areas to which access is being controlled for purposes of radiation protection, but not considering these areas as restricted areas under the requirements of Part 20. Under Part 20, any area for which access is controlled for radiation protection is, by definition, a "Restricted Area." The term "Controlled Area" was added to acknowledge that licensees might choose to restrict access to an area for reasons other than radiation protection, although to do so is not a requirement. In any case, any area to which access is controlled for radiation protection must be considered a "restricted area" and subject to all the attendant Part 20 requirements. Under the current Part 20 definition, an individual who is occupationally exposed yet never enters a restricted area, requires no training concerning radiation protection. Some licensees have interpreted the definition of occupational dose to mean that an individual is occupationally exposed only when in a restricted area. This, too, was not the intent of the rule. While not unique to the revised rule, this problem has come to light now because of the focus by licensees on compliance with new requirements. By eliminating the phrase "in a restricted area" from the definition of occupational dose, this confusion can be eliminated. In addition, "radiation and/or radioactive material" should replace "radiation and radioactive material" to correct a technical error in the rule text. With these changes, occupational dose would then become dose received as a result of an individual's employment which involves exposure to radiation and/or radioactive material, as was intended by the revised rule.

The proposed deletion of the term "Controlled area" and change to the definition of occupational dose will have no adverse impact on health and safety of workers or the public.

Timetable:

Discussion of Draft Rule Provisions
with Agreement StatesMay 20, 1993Division Review and Office ConcurrenceMay 30, 1993
June 9, 1993*
July 12-Sept 30, 199375-Day Public Comment Period
Final Rule for Division Review and Office ConcurrenceJuly 12-Sept 30, 1993
December 1, 1993Final Rule to EDO for IssuanceDecember 1, 1993

* This schedule is based on an assumption that CRGR and ACRS will agree to defer review until after public comment.

LEGAL AUTHORITY:

The Atomic Energy Act of 1954, the Energy Reorganization Act of 1974, and the Administration Procedures Act.

EFFECTS ON SMALL BUSINESS AND OTHER ENTITIES:

1.16

Expected to facilitate smooth and efficient implementation of revised Part 20 by all licensees, with no impact on health and safety of workers or public.

AGENCY CONTACT:

Alan K. Roecklein

Office of Nuclear Regulatory Research