

October 15, 1992

NOTE TO: Al Roecklein, RES  
FROM: Eli Heumann, OC/DBA *Elise Heumann*  
SUBJECT: FINAL RULE ON REVISED STANDARDS FOR PROTECTION AGAINST  
RADIATION; MINOR AMENDMENTS

This is in response to Mr. Heltemes' October 9, 1992 memorandum asking for concurrence on the above rule, and confirms our conversation of today. There are no resource issues involved in this final rule. Attached are the typographical corrections for your consideration.

cc: Lori Stadler (OC ticket 92-427)  
Judy Yurow (OC ticket 92-427)  
Karen Olive  
File NSR-1.6

CF  
AA-38-2  
~~AA-38-2~~  
*Office of Comptroller  
Dir of Budget & Accounting*

*Used in Mark-up*

*F-2*



Approved for Publication

The Commission delegated to the EDO (10 CFR 1.31(c) the authority to develop and promulgate rules as defined in the APA (5 U.S.C. 551 (4)) subject to the limitations in NRC Management Directive 9.17, Organization and Functions, Office of the Executive Director for Operations, paragraphs 0213, 038, 039, and 0310.

The enclosed rule entitled "Revised Standards for Protection Against Radiation; Minor Amendments" makes a number of minor corrective and conforming amendments to 10 CFR Part 20.

This final rule does not constitute a significant question of policy, nor does it amend regulations contained in 10 CFR Parts 7, 8, or 9 Subpart C concerning matters of policy. I, therefore, find that this rule is within the scope of my rulemaking authority and am proceeding to issue it.

\_\_\_\_\_  
Date

\_\_\_\_\_  
James M. Taylor  
Executive Director for Operations

*Is this the Administrative Procedures Act? If so, it  
is abbreviated "AA" in other places in this document.*



SUPPLEMENTARY INFORMATION:

On May 21, 1991 (56 FR 23360), the Nuclear Regulatory Commission (NRC) published its revised standards for protection against radiation (10 CFR 20.1001 - 20.2401) and the associated appendices. The revised standards for protection against radiation incorporated scientific information and reflected changes in the basic philosophy of radiation protection that had occurred since the promulgation of the original regulations. The revised standards for protection against radiation became effective on June 21, 1991. However, NRC licensees were permitted to defer the mandatory implementation of these regulations until January 1, 1993. X

On December 3, 1991 (56 FR 61352), the NRC published a final rule in the Federal Register that corrected a number of minor printing errors and omissions in the May 21, 1991, final rule. Since the publication of the December 3, 1991, correction and the codification of the revised standards for protection against radiation in the 1992 revision of 10 CFR Chapter 1, additional typographical errors and inadvertent omissions have been discovered in the revised standards for protection against radiation. This amendment is necessary to correct these errors in the text of the revised standards for protection against radiation.

On August 26, 1992 (57 FR 38588), the NRC published a final rule that extended the date by which NRC licensees are required to implement the revised standards for protection against radiation from January 1, 1993 until January 1, 1994. This amendment also makes several conforming amendments to the text of the revised standards for protection against radiation that are necessary to reflect the new mandatory implementation date.

Enclosure A



In Appendix B, the seventh paragraph under the heading Table 1 "Occupational" which begins "Note that the dose equivalent..." is deleted because it was erroneously repeated. The same paragraph occurs as the fourth paragraph under the heading Table 1, "Occupational," where it is correct.

In Appendix B, in the third paragraph, the unit "ml" was omitted from the number  $2.4 \times 10^9$ . The unit is added.

In Appendix B, in the last paragraph under the heading Table 2, in the third sentence, the word "the" in the phrase "...presence of the one of the..." is deleted, and the words "...as being present..." are deleted from the phrase "...excluded as being present either from...."

#### Administrative Procedures Act: Waiver

Because these amendments make minor corrective and conforming changes to an existing regulation, the NRC has determined that good cause exists to dispense with the notice and comment provisions of the Administrative Procedure Act (AA) pursuant to 5 U.S.C. 553 (b)(B). For the same reason, the NRC has determined that good cause exists to waive the 30-day deferred effective date provisions of the AA (5 U.S.C. 553 (d)).

#### Environmental Impact: Categorical Exclusion

The NRC has determined that this rule is the type of action described in categorical exclusion 51.22(c)(2). Therefore, neither an environmental impact statement nor an environmental assessment has been prepared for this final rule.



## Paperwork Reduction Act Statement

This final rule does not contain a new or amended information collection requirement subject to the Paperwork Reduction Act of 1980 (44 U.S.C.3501 et seq.). Existing requirements, including requirements contained in §§ 20.1001-20.2401, published May 21, 1991, were approved by the Office of Management and Budget, approval number 3150-0014. X

## Regulatory Analysis

This final rule is administrative in that it corrects and conforms the text of an existing regulation. These amendments will not have a significant impact. Therefore, the NRC has not prepared a regulatory analysis for this final rule. The final regulatory analysis for the May 21, 1991, final rule examined the costs and benefits of the alternatives considered by the Commission in developing the revised standards for protection against radiation and is available for inspection in the NRC Public Document Room, 2120 L Street, NW. (Lower Level), Washington DC.

## Backfit Analysis

The NRC has determined that the backfit rule, 10 CFR 50.109, does not apply to this final rule, and therefore, that a backfit analysis is not required for this final rule because these amendments do not involve any provision which would impose backfits as defined in 10 CFR 50.109(a)(1).



## List of Subjects

### 10 CFR Part 20

Byproduct material, Criminal penalties, Licensed material, Nuclear Materials, Nuclear power plants and reactors, Occupational safety and health, Packaging and containers, Radiation protection, Reporting and recordkeeping requirements, Special nuclear material, Source material, Waste treatment and disposal.

For the reasons set out in the preamble and under the authority of the Atomic Energy Act of 1954, as amended, the Energy reorganization Act of 1974, as amended, and 5 U.S.C. 552 and 553, the NRC is adopting the following corrective and conforming amendments to 10 CFR Part 20.

### PART 20 - STANDARDS FOR PROTECTION AGAINST RADIATION

1. The authority citation for Part 20 continues to read in part as follows:

AUTHORITY: Sec. 161, 68 Stat. 948, as amended (42 U.S.C.2201); Sec. 201, 88 Stat. 1242, as amended, (42 U.S.C. 5841) \*\*\*.

2. The undesignated center heading directly preceding Subpart A (§§ 20.1001 - 20.1009) is revised to read as follows:

Regulations Mandatory as of January 1, 1994, With Earlier Compliance Encouraged



section. These information collection requirements and the control numbers under which they are approved are as follows:

(1) in § 20.2104, NRC Form 4 is approved under control number 3150-0005.

(2) In §§ 20.2106 and 20.2206, NRC Form 5 is approved under control number 3150-0006.

§ 20.1202 [Amended]

5. In § 20.1202(b)(3), footnote 1, the word "factors" is revised to read "factor:" the phrase "committed dose equivalent,  $H_{50}$ ," is revised to read "committed dose equivalent,  $H_{T,50}$ ;" the phrase "maximum weighted value of  $H_{50}$ ," is revised to read "maximum weighted value of  $H_{T,50}$ "; and the parenthetical, " $(w_T H_{50,T})$ " is revised to read " $(w_T H_{T,50})$ ." X

§ 20.1302 [Amended]

6. In § 20.1302(b)(2)(ii), the word "continually" is revised to read "continuously."

§ 20.1703 [Amended]

7. In the first sentence of § 20.1703(b)(1), "ae" is revised to read "are."

8. In § 20.1703(c), "NOISH" is revised to read "NIOSH."

§ 20.2104 [Amended]

9. In § 20.2104, paragraph (c)(2) is amended by removing the word "lifetime" and paragraph (d) is revised to read as follows:

§ 20.2104 Determination of prior occupational dose.

\* \* \* \* \*



9-30-42

A1

A few suggested  
changes + corrections.  
Looks good!

Oliver Mike





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

OCT 9 1992

CF # 8  
AA-38-2  
~~#1226~~

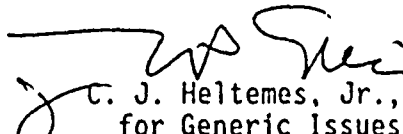
MEMORANDUM FOR: Robert M. Bernero, Director, NMSS  
Thomas E. Murley, Director, NRR  
Martin G. Malsch, Deputy General Counsel  
for Licensing and Regulations, OGC  
Patricia G. Norry, Director, ADM  
Gerald F. Cranford, Director, IRM

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

SUBJECT: OFFICE CONCURRENCE IN FINAL AMENDMENT TO 10 CFR PART 20  
REVISED STANDARDS FOR PROTECTION AGAINST RADIATION: MINOR  
AMENDMENTS

I am requesting your concurrence in the enclosed memorandum to James M. Taylor, Executive Director of Operations, who would approve publication of the subject final rule. This final rule is necessary to correct recently discovered errors in the text of the revised standards and to conform portions of the regulatory text to the Commission's decision to defer mandatory implementation of the revised standards until 1994, and the recent OMB approval of the use of NRC Forms 4 and 5.

I would appreciate your concurrence by OCT 30 1992. If you have any questions concerning this request, please contact Alan Roecklein at 492-3740.

  
C. J. Heltemes, Jr., Deputy Director  
for Generic Issues and Rulemaking  
Office of Nuclear Regulatory Research

Enclosure:  
Memo/ESBeckjord to JMTaylor  
w/attachments

cc: R. M. Scroggins, OC  
M. Lesar  
D. C. Williams, IG

9204626

42031700-36





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

MEMORANDUM FOR: James M. Taylor  
Executive Director for Operations

FROM: Eric S. Beckjord, Director  
Office of Nuclear Regulatory Research

SUBJECT: REVISED STANDARDS FOR PROTECTION AGAINST RADIATION;  
MINOR AMENDMENTS

Attached for your signature is a final rule to be published in the Federal Register that makes a number of minor corrective and conforming amendments to 10 CFR Part 20, Standards for Protection Against Radiation. This final rule is necessary to correct recently discovered errors in the text of the revised standards, to conform portions of the regulatory text to the Commission's decision to defer mandatory implementation of the revised standards until 1994, and to reflect the recent OMB approval of the use of Forms 4 and 5.

Background: On May 21, 1991 (56 FR 23360), the Nuclear Regulatory Commission published its revised standards for protection against radiation (10 CFR 20.1001-20.2401 and associated appendices). The revised standards incorporated new scientific information and reflected changes in the basic philosophy of radiation protection that had developed since promulgation of the original regulations. Since publication of the revised standards in the 1992 revision of 10 CFR Chapter I, a number of typographical errors and inadvertent omissions have been discovered. This amendment is necessary to correct these errors. *Free*

On August 26, 1992 (57 FR 38588), the NRC published a final rule that changed the date by which licensees are required to implement the revised standards from January 1, 1993, to January 1, 1994. This final rule also makes several conforming amendments to the text of the revised standards needed to reflect the new mandatory implementation date. *Free*

Public Comments: Because these amendments make minor corrective and conforming changes, the staff has determined that the notice and public comment provisions of the Administrative Procedure Act (AA) pursuant to 5 U.S.C. 553(b)(B) can be waived. Also, the staff has determined for the same reason that the 30-day deferred effective date provisions can be waived. *Free*

Backfit Analysis: The staff has determined that a backfit analysis is not required for this final rule because these amendments do not involve any provisions which would impose backfits as defined in 10 CFR 50.109(a)(1). *Free*

Notices: A notice to the Commission that the EDO has signed this rule is enclosed for inclusion in the next Daily Staff Notes (Enclosure B). *Free*



James M. Taylor

2

Coordination: The Offices of Administration, Information Resources Management, Nuclear Reactor Regulation, and Nuclear Material Safety and Safeguards concur in these amendments. The General Counsel has no legal objection to their publication.

Eric S. Beckjord, Director  
Office of Nuclear Regulatory Research

Enclosures:

- A. Federal Register Notice  
of Final Rulemaking
- B. Draft Daily Staff Notes  
Item





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

CF  
AA-38-2  
~~413~~ #49  
Comments  
from  
Mike Lesar  
9/30/92

MEMORANDUM FOR: Robert M. Bernero, Director, NMSS  
Thomas E. Murley, Director, NRR  
Martin G. Malsch, Deputy General Counsel  
for Licensing and Regulations, OGC  
Patricia G. Norry, Director, ADM  
Gerald F. Cranford, Director, IRM

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

SUBJECT: OFFICE CONCURRENCE IN FINAL AMENDMENT TO 10 CFR PART 20  
REVISED STANDARDS FOR PROTECTION AGAINST RADIATION: MINOR  
AMENDMENTS

I am requesting your concurrence in the enclosed memorandum to James M. Taylor, Executive Director of Operations, who would approve publication of the subject final rule. This final rule is necessary to correct recently discovered errors in the text of the revised standards and to conform portions of the regulatory text to the Commission's decision to defer mandatory implementation of the revised standards until 1994.

I would appreciate your concurrence by \_\_\_\_\_. If you have any questions concerning this request, please contact Alan Roecklein at 492-3740.

C. J. Heltemes, Jr., Deputy Director  
for Generic Issues and Rulemaking  
Office of Nuclear Regulatory Research

Enclosure:  
Memo/ESBeckjord to JMTaylor  
w/attachments

cc: R. M. Scroggins, OC  
M. Lesar



MEMORANDUM FOR: Robert M. Bernero, Director, NMSS  
Thomas E. Murley, Director, NRR  
Martin G. Malsch, Deputy General Counsel  
for Licensing and Regulations, OGC  
Patricia G. Norry, Director, ADM  
Gerald F. Cranford, Director, IRM

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

SUBJECT: OFFICE CONCURRENCE IN FINAL AMENDMENT TO 10 CFR PART 20  
REVISED STANDARDS FOR PROTECTION AGAINST RADIATION: MINOR  
AMENDMENTS

I am requesting your concurrence in the enclosed memorandum to James M. Taylor, Executive Director of Operations, who would approve publication of the subject final rule. This final rule is necessary to correct recently discovered errors in the text of the revised standards and to conform portions of the regulatory text to the Commission's decision to defer mandatory implementation of the revised standards until 1994.

I would appreciate your concurrence by \_\_\_\_\_. If you have any questions concerning this request, please contact Alan Roecklein at 492-3740.

C. J. Heltemes, Jr., Deputy Director  
for Generic Issues and Rulemaking  
Office of Nuclear Regulatory Research

Enclosure:  
Memo/ESBeckjord to JMTaylor  
w/attachments

cc: R. M. Scroggins  
M. Lesar

Distribution: [ ]  
DACool/RPHEB rf  
Circ/Chron  
ESBeckjord  
CJHeltemes  
BMorris  
FCostanzi  
CTrottier  
ARoecklein

Off:	RPHEB.DRA	RPHEB.DRA	RPHEB.DRA	DD.DRA.RES	D.DRA.RES	DD.GIF.FILES
Name:	ARoecklein:lc	CTrottier	DACool	FCostanzi	BMorris	CJHeltemes
Date:	9 / 26 / 92	/ / 92	/ / 92	/ / 92	/ / 92	/ / 92

OFFICIAL RECORD COPY





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

MEMORANDUM FOR: James M. Taylor  
Executive Director for Operations

FROM: Eric S. Beckjord, Director  
Office of Nuclear Regulatory Research

SUBJECT: REVISED STANDARDS FOR PROTECTION AGAINST RADIATION;  
MINOR AMENDMENTS

Attached for your signature is a final rule to be published in the Federal Register that makes a number of minor corrective and conforming amendments to 10 CFR Part 20, Standards for Protection Against Radiation. This final rule is necessary to correct recently discovered errors in the text of the revised standards and to conform portions of the regulatory text to the Commission's decision to defer mandatory implementation of the revised standards until 1994.

Background: On May 21, 1991 (56 FR 23360), the Nuclear Regulatory Commission published its revised standards for protection against radiation (10 CFR 20.1001-20.2401 and associated appendices). The revised standards incorporated new scientific information and reflected changes in the basic philosophy of radiation protection that had developed since promulgation of the original regulations. Since publication of the revised standards in the 1992 revision of 10 CFR Chapter I, a number of typographical errors and inadvertent omissions have been discovered. This amendment is necessary to correct these errors.

On August 26, 1992 (57 FR 38588), the NRC published a final rule that changed the date by which licensees are required to implement the revised standards from January 1, 1993 to January 1, 1994. This final rule also makes several conforming amendments to the text of the revised standards needed to reflect the new mandatory implementation date.

Public Comments: Because these amendments make minor corrective and conforming changes, the staff has determined that the notice and public comment provisions of the Administrative Procedure Act (AA) pursuant to 5 U.S.C. 553(b)(B) can be waived. Also, the staff has determined for the same reason that the 30-day deferred effective date provisions can be waived.

Backfit Analysis: The staff has determined that a backfit analysis is not required for this final rule because these amendments do not involve any provisions which would impose backfits as defined in 10 CFR 50.109(a)(1).

Notices: A notice to the Commission that the EDO has signed this rule is enclosed for inclusion in the next Daily Staff Notes (Enclosure B).



James M. Taylor

2

Coordination: The Offices of Administration, Information Resources Management, Nuclear Reactor Regulation, Nuclear Material Safety and Safeguards, ~~Governmental and Public Affairs~~ concur in these amendments. The General Counsel has no legal objection to their publication.

Eric S. Beckjord, Director  
Office of Nuclear Regulatory Research

Enclosures:

- A. Federal Register Notice  
of Final Rulemaking
- B. Draft Daily Staff Notes  
Item



James M. Taylor

2

Coordination: The Offices of Administration, Information Resources Management, Nuclear Reactor Regulation, Nuclear Material Safety and Safeguards, Governmental and Public Affairs concur in these amendments. The General Counsel has no legal objection to their publication.

Eric S. Beckjord, Director  
Office of Nuclear Regulatory Research

Enclosures:

- A. Federal Register Notice  
of Final Rulemaking
- B. Draft Daily Staff Notes  
Item

Distribution: [REVISED.STA]  
DACool/RPHEB rf  
Circ/Chron  
ESBeckjord  
CJHeltemes  
BMorris  
FCostanzi  
CTrottier  
ARoecklein

Offc:RPHEB:DRA  
Name:ARoecklein:lc  
Date: 9/16/92

RPHEB:DRA  
CTrottier  
/ /92

RPHEB:DRA  
DACool  
/ /92

DD:DRA:RES  
FCostanzi  
/ /92

D:DRA:RES  
BMorris  
/ /92

DD:GIR:RES  
CJHeltemes  
/ /92

D:NRR  
TMurley  
/ /92

D:NMSS  
RBernero  
/ /92

Offc:OGC  
Name:WCParler  
Date: / /92

D:ADM  
PNorry  
/ /92

D:RES  
ESBeckjord  
/ /92

OFFICIAL RECORD COPY



Approved for Publication

(C)  
The Commission delegated to the EDO (10 CFR 1.31(a)(3)) the authority to develop and promulgate rules as defined in the APA (5 U.S.C. 551 (4)) subject to the limitations in NRC Manual Chapter 0108, Organization and Functions, Office of the Executive Director for Operations, paragraphs 0213, 038, 039, and 0310.

*Management Directive 9.17*

The enclosed rule entitled "Revised Standards for Protection Against Radiation; Minor Amendments," makes a number of minor corrective and conforming amendments to 10 CFR Part 20.

This final rule does not constitute a significant question of policy, nor does it amend regulations contained in 10 CFR Parts 7, 8, or 9 Subpart C concerning matters of policy. I, therefore, find that this rule is within the scope of my rulemaking authority and am proceeding to issue it.

\_\_\_\_\_  
Date

\_\_\_\_\_  
James M. Taylor  
Executive Director for Operations



Enclosure A

Federal Register Notice of Final Rulemaking



[7590-01]

NUCLEAR REGULATORY COMMISSION

10 CFR Part 20

RIN 3150 - AA38

Revised Standards for Protection Against Radiation;  
Minor Amendments

AGENCY: Nuclear Regulatory Commission.

ACTION: Final rule: Minor corrective and conforming amendments.

SUMMARY: This final rule makes a number of minor corrective and conforming amendments to the NRC's revised standards for protection against radiation. The final rule is necessary to correct recently discovered errors in the text of the revised standards and to conform portions of regulatory text to the Commission's decision to defer mandatory implementation of the revised standards until 1994.

EFFECTIVE DATE: (Upon publication).

FOR FURTHER INFORMATION CONTACT: Alan Roecklein, Office of Nuclear Regulatory Research, U.S. Nuclear Regulatory Commission, Washington, DC 20555, telephone (301) 492-3740.

Enclosure A



SUPPLEMENTARY INFORMATION:

On May 21, 1991 (56 FR 23360), the Nuclear Regulatory Commission (NRC) published its revised standards for protection against radiation (10 CFR 20.1001 - 20.2401 and the associated appendices. The revised standards for protection against radiation incorporated scientific information and reflected changes in the basic philosophy of radiation protection that had occurred since the promulgation of the original regulations. The revised standards for protection against radiation became effective on June 21, 1991. However, NRC licensees were permitted to defer the mandatory implementation of these regulations until January 1, 1993.

On December 3, 1991 (56 FR 61352), the NRC published a final rule in the Federal Register that corrected a number of minor printing errors and omissions in the May 21, 1991, final rule. Since the publication of the December 3, 1991, correction and the codification of the revised standards for protection against radiation in the 1992 revision of 10 CFR Chapter I, additional typographical errors and inadvertent omissions have been discovered in the revised standards for protection against radiation. This amendment is necessary to correct these errors in the text of the revised standards for protection against radiation.

On August 26, 1992 (57 FR 38588), the NRC published a final rule that extended the date by which NRC licensees are required to implement the revised standards for protection against radiation from January 1, 1993 until January 1, 1994. This amendment also made several conforming amendments to the text of the revised standards for protection against radiation that are necessary to reflect the new mandatory implementation date.

Enclosure A



*Administrative Procedure Act: Waiver*

Because these amendments make minor corrective and conforming changes to an existing regulation, the NRC has determined that good cause exists to dispense with the notice and comment provisions of the Administrative Procedure Act (AA) pursuant to 5 U.S.C. 553 (b)(B). For the same reason, the NRC has determined that good cause exists to waive the 30-day deferred effective date provisions of the AA (5 U.S.C. 553 (d)).

Explanation of Changes

to P  
5

This final rule makes minor corrections and conforming changes for the following reasons:

In § 20.1003 Definitions, the inadvertently repeated parenthetical phrase " $(H_{c,50} = \sum w_T H_{T,50})$ " is removed.

In § 20.1202, several misprints in the subscripts are corrected.

In § 20.1302, the word "continually" is changed to "continuously" to better reflect the intent of <sup>the provision that an individual would be</sup> present without interruption in an unrestricted <sup>to be</sup> area.

In § 20.1703, the word "are" is corrected.

In § 20.1703, the acronym NIOSH is corrected.

In § 20.2104, the word "lifetime" is deleted from the phrase "...lifetime cumulative radiation dose..." because it is redundant with cumulative and may be misleading <sup>because</sup> since the new rules do not include a lifetime dose limit.

In § 20.2104, paragraph (d) is revised to better explain the option of using a record of exposure history other than Form 4. The amendment makes



it clear that all of the information required on Form 4 would need to be on the optional record.

2-- In § 20.2104 (d), footnote 4, the first sentence is amended to make it clearer that licensees do not have to partition doses received prior to implementing the new Part 20, into external dose equivalents and internal committed dose equivalents. Also, the phrase "...occupational exposure histories obtained and recorded on NRC Form 4 before January 1, 1991, would not have included effective dose equivalent..." is changed to "...before January 1, 1994, might not...." This is more accurate in that if licensees do not implement the new regulation until the mandatory compliance date of January 1, 1994, they are not required to measure and record effective dose equivalent.

2-- In § 20.2202, the phrase "...five times the occupational annual limit on intake..." is amended by deleting the word "occupational," in order to avoid the implication that there is a "non-occupational" or "public" ALI. *occupational limit on intake*

2-- In Appendix B to §§ 20.1001 - 20.2401, in the paragraph under the heading "Introduction," language is added to make clear that inhalation retention classes (D,W,Y) apply only to the inhalation ALIs and DACs given in Table 1, column 2 and 3.

2-- In Appendix B, the seventh paragraph under the heading Table 1 "Occupational" which begins "Note that the dose equivalent..." is deleted because it was erroneously repeated. The same paragraph occurs as the fourth paragraph under the heading Table 1, "Occupational," where it is correct.

2-- In Appendix B, in the third paragraph, the unit "ml" was omitted from the number  $2.4 \times 10^6$ . The unit is added.



2 In Appendix b, in the last paragraph under the heading Table 2, in the third sentence, the word "the" in the phrase "...presence of the one of the... is deleted.

---

Environmental Impact: Categorical Exclusion

6/20/91  
13

The NRC has determined that this rule is the type of action described in categorical exclusion 51.22(c)(2). Therefore, neither an environmental impact statement nor an environmental assessment has been prepared for this final rule.

Paperwork Reduction Act Statement

This final rule does not contain a new or amended information collection requirement subject to the Paperwork Reduction Act of 1980 (44 U.S.C.3501 et seq.). Existing requirements, including requirements contained in §§ 20.1001-20.2401, published May 21, 1991, were approved by the Office of Management and Budget, approval numbers 3150-0014.

Regulatory Analysis

This final rule is administrative in that it corrects and conforms the text of an existing regulation. These amendments will not have a significant impact. Therefore, the NRC has not prepared a regulatory analysis for this final rule. The final regulatory analysis for the May 21, 1991, final rule



examined the costs and benefits of the alternatives considered by the Commission in developing the revised standards for protection against radiation and is available for inspection in the NRC Public Document Room, 2120 L\_Street, NW. (Lower Level), Washington DC.

### Backfit Analysis

The NRC has determined that the backfit rule, 10 CFR 50.109, does not apply to this final rule, and therefore, that a backfit analysis is not required for this final rule because these amendments do not involve any provision which would impose backfits as defined in 10 CFR 50.109(a)(1).

### List of Subjects

#### 10 CFR Part 20

Byproduct material, Criminal penalties, Licensed material, Nuclear Materials, Nuclear power plants and reactors, Occupational safety and health, Packaging and containers, Radiation protection, Reporting and recordkeeping requirements, Special nuclear material, Source material, Waste treatment and disposal.

For the reasons set out in the preamble and under the authority of the Atomic Energy Act of 1954, as amended, the Energy reorganization Act of 1974, as amended, and 5 U.S.C. 552 and 553, the NRC is adopting the following corrective and conforming amendments to 10 CFR Part 20.



PART 20 - STANDARDS FOR PROTECTION AGAINST RADIATION

1. The authority citation for Part 20 continues to read in part as follows:

AUTHORITY: Sec. 161, 68 Stat. 948, as amended (42 U.S.C.2201); Sec. 201, 88 Stat. 1242, as amended, (42 U.S.C. 5841) \*\*\*.

2. The undesignated center heading directly preceding Subpart A (§§ 20.1001 - 20.1009) is revised to read as follows:

Regulations Mandatory as of January 1, 1994, With Earlier Compliance Encouraged

3. In § 20.1003, the term Dosimetry processor is revised to read as follows:

§ 20.1003 Definitions.

\* \* \* \* \*

Dosimetry processor means an individual or organization that processes and evaluates individual monitoring equipment in order to determine the radiation dose delivered to the equipment.

\* \* \* \* \*

§ 20.1202 [Amended]

4. In § 20.1202(b)(3), footnote 1, the word "factors" is revised to read "factor;" the phrase "committed dose equivalent,  $H_{50}$ ," is revised to read "committed dose equivalent,  $H_{r,50}$ ;" the phrase "maximum weighted value of  $H_{50}$ ," is revised to read "maximum weighted value of  $H_{r,50}$ "; and the parenthetical, " $(w_r H_{50,1})$ " is revised to read " $(w_r H_{r,50})$ ."



§ 20.1302 [Amended]

5. In § 20.1302(b)(2)(ii), the word "continually" is revised to read "continuously."

§ 20.1703 [Amended]

6. In the first sentence of § 20.1703(b)(1), "ae" is revised to read "are."

7 In § 20.1703(c), "NOISH" is revised to read "NIOSH."

§ 20.2104 [Amended]

8. In §20.2104, paragraph (c)(2) is amended by removing the word "lifetime" and paragraph (d) is revised to read as follows:

§ 20.2104 Determination of prior occupational dose.

\* \* \* \* \*

(d) The licensee shall record the exposure history of each individual, as required by paragraph (a) of this section, on NRC Form 4, or other clear and legible record, including all of the information required by Form 4<sup>4</sup>. The form or record must show each period in which the individual received occupational exposure to radiation or radioactive material and must be signed by the individual who received the exposure. For each period for which the licensee obtains reports, the licensee shall use the dose shown in the report in preparing the NRC Form 4. For any period in which the licensee does not



obtain a report, the licensee shall place a notation on the NRC Form 4 indicating the periods of time for which data are not available.

\* \* \* \* \*

\_\_\_\_\_\*\_\_\_\_\_  
[Licensees are not required to partition historical dose between external dose equivalent(s) and internal committed dose equivalent(s). Further, occupational exposure histories obtained and recorded on NRC Form 4 before January 1, 1994, might not have included effective dose equivalent, but may be used in the absence of specific information on the intake of radionuclides by the individual.

§ 20.2202 [Amended]

9. In §20.2202(a)(2), the word "occupational" is removed.

Appendix B to §§ 20.1001 - 20.2401 [Amended]

10. In Appendix B to §§20.1001 - 20.2401, the paragraph under the heading "Introduction" is amended by adding the following sentence after the third sentence:

"The class (D, W, or Y) given in the column headed "Class" applies only to the inhalation ALIs and DACs given in Table 1, columns 2 and 3."

11. In Appendix B to §§20.1001 -20.2401, the seventh paragraph under the heading Table 1 "Occupational" which begins "Note that the dose equivalent..." is removed.

12. In Appendix B to §§20.1001 -20.2401, in the second sentence of the third paragraph under the heading Table 2 which begins "The air concentration levels...", the unit "ml" is added after the number  $2.4 \times 10^3$ ."

13. In Appendix B to §§20.1001 -20.2401, in the last sentence of the last paragraph under the heading Table 2 is revised to read as follows:

"The limit for the unknown mixture is defined when the presence of one of the listed radionuclides cannot be definitely excluded as being present

Enclosure A



either from knowledge of the radionuclide composition of the source or from actual measurements."

Dated at Rockville, Maryland, this \_\_\_\_ day of \_\_\_\_\_, 1992.

For the Nuclear Regulatory Commission.

---

James M. Taylor,  
Executive Director for Operations.



Enclosure B  
Draft Daily Staff Notes Item



DAILY STAFF NOTES  
OFFICE OF NUCLEAR REGULATORY RESEARCH

Final Rule Signed by EDO

On \_\_\_\_\_, 1992, the Executive Director for Operations approved a final rule that makes a number of minor corrective and conforming amendments to 10 CFR Part 20, Standard for Protection Against Radiation (10 CFR 20.1001-20.2401). This amendment is necessary to correct a number of typographical errors and inadvertent omission discovered since the revised standards were published in 10 CFR Chapter I. In addition, this amendment makes conforming changes to reflect the Commission's decision to extend the date for mandatory implementation of the revised standards to January 1, 1994.

This notice informs the Commission that, in accordance with the rulemaking authority delegated to the EDO, the EDO has signed this final rule and proposes to forward it on \_\_\_\_\_ to the Office of the Federal Register for publication, unless otherwise directed by the Commission.

Enclosure B



NOTICE OF OFFICE OF MANAGEMENT AND BUDGET ACTION

CF  
AA-38-2  
~~11~~  
10

TO: BRENDA JO. SHELTON (7714-MNB3)  
NRC CLEARANCE OFFICER  
U.S. NUCLEAR REGULATORY COMMISSION  
WASHINGTON, D.C. 20555  
Nuclear Regulatory Commission

ACTION DATE

09/03/92

ON 07/15/92, YOU REQUESTED APPROVAL OF THE FOLLOWING INFORMATION COLLECTION:  
TITLE: OCCUPATIONAL EXPOSURE RECORD FOR A MONITORING PERIOD  
AGENCY FORM NOS.: NRC-5

IN ACCORDANCE WITH THE PAPERWORK REDUCTION ACT, WE HAVE TAKEN THE FOLLOWING ACTION ON THIS INFORMATION COLLECTION:

APPROVED FOR USE THROUGH 06/30/95. OMB NO. 3150-0006.  
THE OFFICE OF MANAGEMENT AND BUDGET CONTROL NUMBER MUST BE DISPLAYED IN ACCORDANCE WITH 5 CFR 1320. UNLESS OTHERWISE PROVIDED IN "REMARKS," EXPIRATION DATES MUST ALSO BE DISPLAYED AS REQUIRED BY 5 CFR 1320.

EFFECT ON BURDEN:	RESPONSES	REPORTING HOURS
PREVIOUS STATUS	400,000	166,320
NEW STATUS	400,000	129,828
DIFFERENCE		-36,492

EXPLANATION OF DIFFERENCE:

ADJUSTMENTS	RESPONSES	REPORTING HOURS
CORRECTION-ERROR	0	0
CORRECTION-REESTIMATE	0	0
CHANGE IN USE	0	0
PROGRAM CHANGES		
INCREASE	0	0
DECREASE	0	-36,492

REMARKS:



NOTICE OF OFFICE OF MANAGEMENT AND BUDGET ACTION

CF  
AA-38-2  
~~15~~  
#11

TO: BRENDA JO. SHELTON (7714-MN33)  
NRC CLEARANCE OFFICER  
U.S. NUCLEAR REGULATORY COMMISSION  
WASHINGTON, D.C. 20555  
Nuclear Regulatory Commission

ACTION DATE

09/03/92

ON 07/15/92, YOU REQUESTED APPROVAL OF THE FOLLOWING INFORMATION COLLECTION:  
TITLE: CUMULATIVE OCCUPATIONAL EXPOSURE HISTORY  
AGENCY FORM NOS.: NRC-4

IN ACCORDANCE WITH THE PAPERWORK REDUCTION ACT, WE HAVE TAKEN THE FOLLOWING ACTION ON THIS INFORMATION COLLECTION:

APPROVED FOR USE THROUGH 06/30/95. OMB NO. 3150-0005.  
THE OFFICE OF MANAGEMENT AND BUDGET CONTROL NUMBER MUST BE DISPLAYED IN ACCORDANCE WITH 5 CFR 1320. UNLESS OTHERWISE PROVIDED IN "REMARKS," EXPIRATION DATES MUST ALSO BE DISPLAYED AS REQUIRED BY 5 CFR 1320.

EFFECT ON BURDEN:	RESPONSES	REPORTING HOURS
PREVIOUS STATUS	40,000	10,000
NEW STATUS	40,000	7,667
DIFFERENCE		-2,333

EXPLANATION OF DIFFERENCE:

ADJUSTMENTS	RESPONSES	REPORTING HOURS
CORRECTION-ERROR	0	0
CORRECTION-REESTIMATE	0	0
CHANGE IN USE	0	0
PROGRAM CHANGES		
INCREASE	0	0
DECREASE	0	-2,333

REMARKS:





UNITED STATES  
NUCLEAR REGULATORY COMMISSION  
WASHINGTON, D. C. 20585

Enact 1 CF  
AA-38-2  
#12

MEMORANDUM FOR: James M. Taylor  
Executive Director for Operations

FROM: Eric S. Beckjord, Director  
Office of Nuclear Regulatory Research

SUBJECT: REVISED STANDARDS FOR PROTECTION AGAINST RADIATION;  
MINOR AMENDMENTS

Attached for your signature is a final rule to be published in the Federal Register that makes a number of minor corrective and conforming amendments to 10 CFR Part 20, Standards for Protection Against Radiation. This final rule is necessary to correct recently discovered errors in the text of the revised standards and to conform portions of the regulatory text to the Commission's decision to defer mandatory implementation of the revised standards until 1994.

Background: On May 21, 1991 (56 FR 23360), the Nuclear Regulatory Commission published its revised standards for protection against radiation (10 CFR 20.1001, 20.2401 and associated appendices). The revised standards incorporated new scientific information and reflected changes in the basic philosophy of radiation protection that had developed since promulgation of the original regulations. Since publication of the revised standards in the 1992 revision of 10 CFR Chapter I, a number of typographical errors and inadvertent omissions have been discovered. This amendment is necessary to correct <sup>these</sup> errors.

On August 26, 1992 (57 FR 38588), the NRC published a final rule that changed the date by which licensees are required to implement the revised standards from January 1, 1993 to January 1, 1994. This final rule also makes several conforming amendments to the text of the revised standards needed to reflect the new mandatory implementation date.

Public Comments: Because these amendments make minor corrective and conforming changes, the staff has determined that the notice and public comment provisions of the Administrative Procedure Act (AA) pursuant to 5 U.S.C. 553(b)(B) can be waived. Also, the staff has determined for the same reason that the 30-day deferred effective date provisions can be waived.

Backfit Analysis: The staff has determined that a backfit analysis is not required for this final rule because these amendments do not involve any provisions which would impose backfits as defined in 10 CFR 50.109(a)(1).

Notices: A notice to the Commission that the EDO has signed this rule is enclosed for inclusion in the next Daily Staff Notes (Enclosure B).



James M. Taylor

2

*Information*  
Coordination: The Offices of Administration, and Resources Management, Nuclear Reactor Regulation, Nuclear Material Safety and Safeguards, Governmental and Public Affairs concur in these amendments. The General Counsel has no legal objection to their publication.

Eric S. Beckjord, Director  
Office of Nuclear Regulatory Research

Enclosures:

- A. Federal Register Notice  
of Final Rulemaking
- B. Draft Daily Staff Notes  
Item



SUPPLEMENTARY INFORMATION:

On May 21, 1991 (56 FR 23360), the Nuclear Regulatory Commission (NRC) published its revised standards for protection against radiation (10 CFR 20.1001 - 20.2401 and the associated appendices. The revised standards for protection against radiation incorporated scientific information and reflected changes in the basic philosophy of radiation protection that had occurred since the promulgation of the original regulations. The revised standards for protection against radiation became effective on June 21, 1991. However, NRC licensees were permitted to defer the mandatory implementation of these regulations until January 1, 1993.

On December 3, 1991 (56 FR 61352), the NRC published a ~~document~~ <sup>final rule</sup> in the Federal Register that corrected a number of minor printing errors and omissions in the May 21, 1991, final rule. Since the publication of the December 3, 1991, correction and the codification of the revised standards for protection against radiation in the 1992 revision of 10 CFR Chapter I, additional typographical errors and inadvertent omissions have been discovered in the revised standards for protection against radiation. This amendment is necessary to correct these errors in the text of the revised standards for protection against radiation.

On August 26, 1992 (57 FR 38588), the NRC published a final rule that extended the date by which NRC licensees are required to implement the revised standards for protection against radiation from January 1, 1993 until January 1, 1994. This ~~document~~ <sup>amendment made</sup> also makes several conforming amendments to the text of the revised standards for protection against radiation that are necessary to reflect the new mandatory implementation date.



# Amend A

①

## Explanation of Changes.

This final rule makes minor corrections and conforming changes for the following reasons:

- In § 20.1003 Definition, the inadvertently repeated parenthetical phrase " $(H_{E,50} = \sum w_T H_{T,50})$ " is removed.
- In § 20.1202, several misprints in the footnotes subscripts are corrected.
- In § 20.1302, the word "continually" is changed to "continuously" to better reflect the intent of present without interruption in an unrestricted area.
- In § 20.1703 ~~(b)(4)~~, the word "are" is corrected.
- In § 20.1703, the acronym NIOSH is corrected.
- In § 20. <sup>2104</sup> ~~1004~~, the word "lifetime" is deleted from the phrase "... lifetime cumulative radiation dose ..." because it is redundant with cumulative and may be misleading since the new rules do not include a lifetime dose limit.
- In § 20.2104, paragraph (d) is revised to better explain the option of using a record of exposure history other than Form 4. The new amendment makes it clear that all of the information required on Form 4 would need to be on the optional record.



(2)

- In § 20.2104 (d), footnote 4, the first sentence is amended to make it clear that licensees do not have to partition doses received prior to implementing the new Part 20 int: external dose equivalents and internal dose equivalents. Also, the phrase "... occupational exposure histories obtained and recorded on NRC Form 4 before ~~the new regulations~~" January 1, 1991, would not have included effective dose equivalent.... is then changed to "... before January 1, 1994, might not...". This is more accurate in that if licensees do not implement the new regulations until the mandatory compliance date of January 1, 1994, they are not required to measure and record effective dose equivalent.
- In § 20.2202, the phrase "... five times the occupational ~~air~~ annual limit on intake..." is amended by deleting the word "occupational," in order to avoid the implication that there is a "non-occupational" or "public" ALI.
- In Appendix B to §§ 20.1001 - 20.2401, in the paragraph under the heading "Introduction", language is added to make clear that ~~source~~ inhalation retention classes (D, W, Y) apply only to the inhalation ALIs and DACs given in Table 1, column 2 and 3.
- In Appendix B, the seventh paragraph under the heading "Table 1 'Occupational'" which begins "Note that the dose equivalent..." is deleted because it was erroneously repeated. The same paragraph occurs in the fourth paragraph under the heading "Table 1, 'Occupational'", where it is correct.



(3)

- In Appendix B, in the third paragraph, the unit "ml" was omitted from the number  $2.4 \times 10^9$ . The unit is added.
- In Appendix B, in the last paragraph under the heading Table 2, in the third sentence, the word "the" in the phrase "... presence of the one of the..." is deleted.



## Regulatory Analysis

This final rule is administrative in that it corrects and conforms the text of an existing regulation. These amendments will not have a significant impact. Therefore, the NRC has not prepared a regulatory analysis for this final rule. The final regulatory analysis for the May 21, 1991, final rule examined the costs and benefits of the alternatives considered by the Commission in developing the revised standards for protection against radiation and is available for inspection in the NRC Public Document Room, 2120 L Street, NW. (Lower Level), Washington DC.

## Backfit Analysis

The NRC has determined that the backfit rule, 10 CFR 50.109, does not apply to this final rule, and therefore, that a backfit analysis is not required for this final rule because these amendments do not involve any provision which would impose backfits as defined in 10 CFR 50.109(a)(1).

## List of Subjects

### 10 CFR Part 20

Byproduct material, Criminal penalties, Licensed material, Nuclear Materials, Nuclear power plants and reactors, Occupational safety and health, Packaging and containers, Radiation protection, Reporting and recordkeeping requirements, Special nuclear material, Source material, Waste treatment and disposal.



For the reasons set out in the preamble and under the authority of the Atomic Energy Act of 1954, as amended, the Energy reorganization Act of 1974, as amended, and 5 U.S.C. 552 and 553, the NRC is adopting the following corrective and conforming amendments to 10 CFR Part 20.

#### PART 20 - STANDARDS FOR PROTECTION AGAINST RADIATION

1. The authority citation for Part 20 continues to read in part as follows:

AUTHORITY: Sec. 161, 68 Stat. 948, as amended (42 U.S.C.2201); Sec. 201, 88 Stat. 1242, as amended, 42 U.S.C. 5841) \*\*\*.

2. The undesignated center heading directly preceding Subpart A (§§ 20.1001 - 20.1009) is revised to read as follows:

Regulations Mandatory as of January 1, 1994, With Earlier Compliance Encouraged

3. In § 20.1003, the term Dosimetry processor is revised to read as follows:

§ 20.1003 Definitions.

\* \* \* \* \*

Dosimetry processor means an individual or organization that processes and evaluates individual monitoring equipment in order to determine the radiation dose delivered to the equipment.

\* \* \* \* \*

§ 20.1202 [Amended]



4. In § 20.1202(b)(3), footnote 1, the word "factors" is revised to read "factor;" the phrase "committed dose equivalent,  $H_{50}$ ," is revised to read "committed dose equivalent,  $H_{r,50}$ ;" and the phrase "maximum weighted value of  $H_{50}$ ," is revised to read "maximum weighted value of  $H_{r,50}$ ;" and the parenthetical, " $(W_r H_{50,r})$ " is revised to read " $(W_r H_{r,50})$ ."

§ 20.1302 [Amended]

5. In § 20.1302(b)(2)(ii), the word "continually" is revised to read "continuously."

§ 20.1703 [Amended]

6. In the first sentence of § 20.1703(b)(1), "ae" is revised to read "are."

7. In § 20.1703(c), "NOISH" is revised to read "NIOSH."  
§ 20.2104 [Amended]

8. In § 20.2104, paragraph (c)(2) is amended by removing the word "lifetime" and paragraph (d) is revised to read as follows:

§ 20.2104 Determination of prior occupational dose.

\* \* \* \* \*

(d) The licensee shall record the exposure history of each individual, as required by paragraph (a) of this section, on NRC Form 4, or other clear and legible record, <sup>including</sup> all of the information required by ~~that form~~ <sup>Form 4</sup>. The form or record must show each period in which the individual received occupational exposure to radiation or radioactive material and must be signed by the individual who received the exposure. For each period for which the licensee obtains reports, the licensee shall use the dose shown in the report in preparing the NRC Form 4. For any period in which the licensee does not



obtain a report, the licensee shall place a notation on the NRC Form 4 indicating the periods of time for which data are not available.

\* \* \* \* \*

\*Licensees are not required to partition historical dose between external dose equivalent(s) and internal committed dose equivalent(s). Further, occupational exposure histories obtained and recorded on NRC Form 4 before January 1, 1974, might not have included effective dose equivalent, but may be used in the absence of specific information on the intake of radionuclides by the individual.

§ 20.2202 [Amended]

9. In §20.2202(a)(2), the word "occupational" is removed.

Appendix B to §§ 20.1001 - 20.2401 [Amended]

10. In Appendix B to §§20.1001 - 20.2401, the paragraph under the heading "Introduction" is amended by adding the following sentence after the third sentence:

⇒ "The class (D, W, or Y) given in the column headed "Class" applies only to the inhalation ALIs and DACs given in Table 1, columns 2 and 3."

~~11. In Appendix B to §§20.1001 - 20.2401, the second sentence in the sixth paragraph under the heading Table 1 "Occupational" is amended by adding the word "and" between the words "limiting," and "use."~~

11. In Appendix B to §§20.1001 - 20.2401, the seventh paragraph under the heading Table 1 "Occupational" which begins "Note that the dose equivalent..." is removed.

12. In Appendix B to §§20.1001 - 20.2401, in the second sentence of the third paragraph under the heading Table 2 which begins "The air concentration levels...", the unit "ml" is added after the number  $2.4 \times 10^9$ ."



143 In Appendix B to §§20.1001 -20.2401, in the last sentence of the last paragraph under the heading Table 2 is revised to read as follows:

"The limit for the unknown mixture is defined when the presence of one of the listed radionuclides cannot be definitely excluded as being present either from knowledge of the radionuclide composition of the source or from actual measurements."

Dated at Rockville, Maryland, this \_\_\_\_\_ day of \_\_\_\_\_, 1992.

For the Nuclear Regulatory Commission.

---

James M. Taylor,  
Executive Director for Operations.





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

#13  
Draft 2 MF  
AA-38-2  
~~4/17~~ ~~4/23~~

MEMORANDUM FOR: Robert M. Bernero, Director, NMSS  
Thomas E. Murley, Director, NRR  
Martin G. Malsch, Deputy General Counsel  
for Licensing and Regulations, OGC  
Patricia G. Norry, Director, ADM  
Gerald F. Cranford, Director, IRM

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

SUBJECT: OFFICE CONCURRENCE IN FINAL AMENDMENT TO 10 CFR PART 20  
REVISED STANDARDS FOR PROTECTION AGAINST RADIATION: MINOR  
AMENDMENTS

I am requesting your concurrence in the enclosed memorandum to James M. Taylor, Executive Director of Operations, who would approve publication of the subject final rule. This final rule is necessary to correct recently discovered errors in the text of the revised standards and to conform portions of the regulatory text to the Commission's decision to defer mandatory implementation of the revised standards until 1994.

I would appreciate your concurrence by \_\_\_\_\_. If you have any questions concerning this request, please contact Alan Roecklein at 492-3740.

C. J. Heltemes, Jr., Deputy Director  
for Generic Issues and Rulemaking  
Office of Nuclear Regulatory Research

Enclosure:  
Memo/ESBeckjord to JMTaylor  
w/attachments

cc: R. M. Scroggins, OC  
M. Lesar

*and the record on B approved of NRC Forms 4 and 5.*  
*Letter of*





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

MEMORANDUM FOR: James M. Taylor  
Executive Director for Operations

FROM: Eric S. Beckjord, Director  
Office of Nuclear Regulatory Research

SUBJECT: REVISED STANDARDS FOR PROTECTION AGAINST RADIATION;  
MINOR AMENDMENTS

Attached for your signature is a final rule to be published in the Federal Register that makes a number of minor corrective and conforming amendments to 10 CFR Part 20, Standards for Protection Against Radiation. This final rule is necessary to correct recently discovered errors in the text of the revised standards and to conform portions of the regulatory text to the Commission's decision to defer mandatory implementation of the revised standards until 1994. *and the recent amendment of the use of Forms 4 and 5*

Background: On May 21, 1991 (56 FR 23360), the Nuclear Regulatory Commission published its revised standards for protection against radiation (10 CFR 20.1001-20.2401 and associated appendices). The revised standards incorporated new scientific information and reflected changes in the basic philosophy of radiation protection that had developed since promulgation of the original regulations. Since publication of the revised standards in the 1992 revision of 10 CFR Chapter I, a number of typographical errors and inadvertent omissions have been discovered. This amendment is necessary to correct these errors.

On August 26, 1992 (57 FR 38588), the NRC published a final rule that changed the date by which licensees are required to implement the revised standards from January 1, 1993 to January 1, 1994. This final rule also makes several conforming amendments to the text of the revised standards needed to reflect the new mandatory implementation date.

Public Comments: Because these amendments make minor corrective and conforming changes, the staff has determined that the notice and public comment provisions of the Administrative Procedure Act (AA) pursuant to 5 U.S.C. 553(b)(8) can be waived. Also, the staff has determined for the same reason that the 30-day deferred effective date provisions can be waived.

Backfit Analysis: The staff has determined that a backfit analysis is not required for this final rule because these amendments do not involve any provisions which would impose backfits as defined in 10 CFR 50.109(a)(1).

Notices: A notice to the Commission that the EDO has signed this rule is enclosed for inclusion in the next Daily Staff Notes (Enclosure B).



James M. Taylor

2

Coordination: The Offices of Administration, Information Resources Management, Nuclear Reactor Regulation, Nuclear Material Safety and Safeguards, ~~Governmental and Public Affairs~~ and <sup>and</sup> concur in these amendments. The General Counsel has no legal objection to their publication.

Eric S. Beckjord, Director  
Office of Nuclear Regulatory Research

Enclosures:

- A. Federal Register Notice  
of Final Rulemaking
- B. Draft Daily Staff Notes  
Item



Approved for Publication

The Commission delegated to the EDO (10 CFR 1.31(a)(3)) the authority to develop and promulgate rules as defined in the APA (5 U.S.C. 551 (4)) subject to the limitations in NRC ~~Manual Chapter 0103~~ Organization and Functions, Office of the Executive Director for Operations, paragraphs 0213, 038, 039, and 0310.

(c)  
Management Directive 9.17

The enclosed rule entitled "Revised Standards for Protection Against Radiation; Minor Amendments," makes a number of minor corrective and conforming amendments to 10 CFR Part 20.

This final rule does not constitute a significant question of policy, nor does it amend regulations contained in 10 CFR Parts 7, 8, or 9 Subpart C concerning matters of policy. I, therefore, find that this rule is within the scope of my rulemaking authority and am proceeding to issue it.

\_\_\_\_\_  
Date

\_\_\_\_\_  
James M. Taylor  
Executive Director for Operations



NUCLEAR REGULATORY COMMISSION

10 CFR Part 20

RIN 3150 - AA38

Revised Standards for Protection Against Radiation;  
Minor Amendments

AGENCY: Nuclear Regulatory Commission.

ACTION: Final rule: Minor corrective and conforming amendments.

SUMMARY: This final rule makes a number of minor corrective and conforming amendments to the NRC's revised standards for protection against radiation. The final rule is necessary to correct recently discovered errors in the text of the revised standards and to conform portions of regulatory text to the Commission's decision to defer mandatory implementation of the revised standards until 1994. *and the recent OMB approval of the use of NRC Form 4-23.*

EFFECTIVE DATE: (Upon publication).

FOR FURTHER INFORMATION CONTACT: Alan Roecklein, Office of Nuclear Regulatory Research, U.S. Nuclear Regulatory Commission, Washington, DC 20555, telephone (301) 492-3740.

Enclosure A



#### SUPPLEMENTARY INFORMATION:

On May 21, 1991 (56 FR 23360), the Nuclear Regulatory Commission (NRC) published its revised standards for protection against radiation (10 CFR 20.1001 - 20.2401 and the associated appendices. The revised standards for protection against radiation incorporated scientific information and reflected changes in the basic philosophy of radiation protection that had occurred since the promulgation of the original regulations. The revised standards for protection against radiation became effective on June 21, 1991. However, NRC licensees were permitted to defer the mandatory implementation of these regulations until January 1, 1993.

On December 3, 1991 (56 FR 61352), the NRC published a final rule in the Federal Register that corrected a number of minor printing errors and omissions in the May 21, 1991, final rule. Since the publication of the December 3, 1991, correction and the codification of the revised standards for protection against radiation in the 1992 revision of 10 CFR Chapter I, additional typographical errors and inadvertent omissions have been discovered in the revised standards for protection against radiation. This amendment is necessary to correct these errors in the text of the revised standards for protection against radiation.

On August 26, 1992 (57 FR 36588), the NRC published a final rule that extended the date by which NRC licensees are required to implement the revised standards for protection against radiation from January 1, 1993 until January 1, 1994. This amendment also made several conforming amendments to the text of the revised standards for protection against radiation that are necessary to reflect the new mandatory implementation date.



and NRC Forms 4 and 5,

The Nuclear Regulatory Commission submitted the information collection requirement contained in this part to the Office of Management and Budget (OMB) for approval as required by the Paperwork Reduction Act of 1980 (~~44 U.S.C.~~). OMB has approved the information collection requirement contained in Part 20 under control number 3150-2014, and has approved the use of NRC Forms 4 and 5 under control numbers 3150-0005 and 3150-0006. This amendment revises § 20.1007 to reflect these approvals.



to page 5

Administrative Procedures Act: Waiver

Because these amendments make minor corrective and conforming changes to an existing regulation, the NRC has determined that good cause exists to dispense with the notice and comment provisions of the Administrative Procedure Act (AA) pursuant to 5 U.S.C. 553 (b)(B). For the same reason, the NRC has determined that good cause exists to waive the 30-day deferred effective date provisions of the AA (5 U.S.C. 553 (d)).

Explanation of Changes

This final rule makes minor corrections and conforming changes for the following reasons:

In § 20.1003 Definitions, the inadvertently repeated parenthetical phrase " $(H_{r,50} = \sum H_{r,50})$ " is removed.

In § 20.1202, several misprints in the subscripts are corrected.

In § 20.1302, the word "continually" is changed to "continuously" to better reflect the intent of <sup>being</sup> present without interruption in an unrestricted area. *the provision that an individual would have to be*

In § 20.1703, the word "are" is corrected.

In § 20.1703, the acronym NIOSH is corrected.

In § 20.2104, the word "lifetime" is deleted from the phrase "...lifetime cumulative radiation dose..." because it is redundant with cumulative and may be misleading <sup>because</sup> the new rules do not include a lifetime dose limit.

In § 20.2104, paragraph (d) is revised to better explain the option of using a record of exposure history other than Form 4. The amendment makes

*In 20.1004, Reporting, recording, and application requirements OMB approved, text is revised to reflect recent 3 OMB approvals.*

Enclosure A



it clear that all of the information required on Form 4 would need to be ~~in~~ the optional record.

2 In § 20.2104 (d), footnote 4, the first sentence is amended to make it clearer that licensees do not have to partition doses received prior to implementing the new Part 20 ~~into~~ external dose equivalents and internal committed dose equivalents. Also, the phrase "...occupational exposure histories obtained and recorded on NRC Form 4 before January 1, 1991, would not have included effective dose equivalent..." is changed to "...before January 1, 1994, might not...." This is more accurate <sup>since</sup> ~~in that~~ if licensees do not implement the new regulation until the mandatory compliance date of January 1, 1994, they are not required to measure and record effective dose equivalent.

2 In § 20.2202, the phrase "...five times the occupational annual limit on intake..." is amended by deleting the word "occupational," in order to avoid the implication that there is a "non-occupational" or "public" <sup>Annual limit</sup> ~~At-t. on intake (DEF)~~

2 In Appendix B to §§ 20.1001 - 20.2401, in the paragraph under the heading "Introduction," language is added to make <sup>it</sup> clear that inhalation retention classes (D,W,Y) apply only to the inhalation ALIs and DACs given in Table 1, column 2 and 3.

2 In Appendix B, the seventh paragraph under the heading Table 1 "Occupational" which begins "Note that the dose equivalent..." is deleted because it was erroneously repeated. The same paragraph occurs as the fourth paragraph under the heading Table 1, "Occupational," where it is correct.

2 In Appendix B, in the third paragraph, the unit "ml" was omitted from the number  $2.4 \times 10^6$ . The unit is added.



- In Appendix B, in the last paragraph under the heading Table 2, in the third sentence, the word "the" in the phrase "...presence of the one of the... is deleted, as 1.2.2.2.2 "... as being present..." and deleted from the phrase "... is being present either from ...".

Environmental Impact: Categorical Exclusion

from  
pg. 3

The NRC has determined that this rule is the type of action described in categorical exclusion 51.22(c)(2). Therefore, neither an environmental impact statement nor an environmental assessment has been prepared for this final rule.

#### Paperwork Reduction Act Statement

This final rule does not contain a new or amended information collection requirement subject to the Paperwork Reduction Act of 1980 (44 U.S.C. 3501 et seq.). Existing requirements, including requirements contained in §§ 20.1001-20.2401, published May 21, 1991, were approved by the Office of Management and Budget, approval numbers 3150-0014.

#### Regulatory Analysis

This final rule is administrative in that it corrects and conforms the text of an existing regulation. These amendments will not have a significant impact. Therefore, the NRC has not prepared a regulatory analysis for this final rule. The final regulatory analysis for the May 21, 1991, final rule



examined the costs and benefits of the alternatives considered by the Commission in developing the revised standards for protection against radiation and is available for inspection in the NRC Public Document Room, 2120 L Street, NW. (Lower Level), Washington DC.

### Backfit Analysis

The NRC has determined that the backfit rule, 10 CFR 50.109, does not apply to this final rule, and therefore, that a backfit analysis is not required for this final rule because these amendments do not involve any provision which would impose backfits as defined in 10 CFR 50.109(a)(1).

### List of Subjects

#### 10 CFR Part 20

Byproduct material, Criminal penalties, Licensed material, Nuclear Materials, Nuclear power plants and reactors, Occupational safety and health, Packaging and containers, Radiation protection, Reporting and recordkeeping requirements, Special nuclear material, Source material, Waste treatment and disposal.

For the reasons set out in the preamble and under the authority of the Atomic Energy Act of 1954, as amended, the Energy reorganization Act of 1974, as amended, and 5 U.S.C. 552 and 553, the NRC is adopting the following corrective and conforming amendments to 10 CFR Part 20.



PART 20 - STANDARDS FOR PROTECTION AGAINST RADIATION

1. The authority citation for Part 20 continues to read in part as follows:

AUTHORITY: Sec. 161, 68 Stat. 948, as amended (42 U.S.C.2201); Sec. 201, 88 Stat. 1242, as amended, (42 U.S.C. 5841) \*\*\*.

2. The undesignated center heading directly preceding Subpart A (§§ 20.1001 - 20.1009) is revised to read as follows:

Regulations Mandatory as of January 1, 1994, With Earlier Compliance Encouraged

3. In § 20.1003, the term Dosimetry processor is revised to read as follows:

§ 20.1003 Definitions.

\* \* \* \* \*

Dosimetry processor means an individual or organization that processes



§ 20.1302 [Amended]

*6* In § 20.1302(b)(2)(ii), the word "continually" is revised to read "continuously."

§ 20.1703 [Amended]

*7* In the first sentence of § 20.1703(b)(1), "ae" is revised to read "are."

*8* In § 20.1703(c), "NOISH" is revised to read "NIOSH."

§ 20.2104 [Amended]

*9* In §20.2104, paragraph (c)(2) is amended by removing the word "lifetime" and paragraph (d) is revised to read as follows:

§ 20.2104 Determination of prior occupational dose.

\* \* \* \* \*

*10* The licensee shall record the exposure history of each individual, as required by paragraph (a) of this section, on NRC Form 4, or other clear and legible record, including all of the information required by Form 4'. The form or record must show each period in which the individual received occupational exposure to radiation or radioactive material and must be signed by the individual who received the exposure. For each period for which the licensee obtains reports, the licensee shall use the dose shown in the report in preparing the NRC Form 4. For any period in which the licensee does not



obtain a report, the licensee shall place a notation on the NRC Form 4 indicating the periods of time for which data are not available.

\* \* \* \* \*

"Licensees are not required to partition historical dose between external dose equivalent(s) and internal committed dose equivalent(s). Further, occupational exposure histories obtained and recorded on NRC Form 4 before January 1, 1994, might not have included effective dose equivalent, but may be used in the absence of specific information on the intake of radionuclides by the individual.

§ 20.2202 [Amended]

/0. In §20.2202(a)(2), the word "occupational" is removed.

Appendix B to §§ 20.1001 - 20.2401 [Amended]

/0. In Appendix B to §§20.1001 - 20.2401, the paragraph under the heading "Introduction" is amended by adding the following sentence after the third sentence:

"The class (D, W, or Y) given in the column headed "Class" applies only to the inhalation ALIs and DACs given in Table 1, columns 2 and 3."

/1. In Appendix B to §§20.1001 -20.2401, the seventh paragraph under the heading Table 1 "Occupational" which begins "Note that the dose equivalent..." is removed.

/12. In Appendix B to §§20.1001 -20.2401, in the second sentence of the third paragraph under the heading Table 2 which begins "The air concentration levels..." the unit "ml" is added after the number  $2.4 \times 10^3$ ."

/13. In Appendix B to §§20.1001 -20.2401, in the last sentence of the last paragraph under the heading Table 2 is revised to read as follows:

"The limit for the unknown mixture is defined when the presence of one of the listed radionuclides cannot be definitely excluded as being present."

Enclosure A



either from knowledge of the radionuclide composition of the source or from actual measurements."

Dated at Rockville, Maryland, this \_\_\_\_ day of \_\_\_\_\_, 1992.

For the Nuclear Regulatory Commission.

---

James M. Taylor,  
Executive Director for Operations.



James M. Taylor

3

Draft 3

#14  
CF  
AA-38-2  
~~12/27~~  
~~12/28~~

DOC. FILE NAME: REVISED.STA  
LONG DISPLAY: Pt20/ESBeckjord to JMTaylor  
CREATED: 9/17/92  
AUTHOR: Alan Roecklein  
REVISED: 9/25/92 10/5,7/92  
TYPIST: LCrossland LC  
TIME: 2:35 p.m. 4:00 p.m.

EXCERPT:

MEMORANDUM FOR: James M. Taylor  
Executive Director for Operations  
FROM: Eric S. Beckjord, Director  
Office of Nuclear Regulatory Research  
SUBJECT: REVISED STANDARDS FOR PROTECTION AGAINST RADIATION;  
MINOR AMENDMENTS

Attached for your signature is a final rule to be published in the Federal Register that makes a number of minor corrective and conforming amendments to 10 CFR Part 20, Standards for Protection Against Radiation. This final rule is necessary to correct recently discovered errors in the text of the revised



Approved for Publication

(1)  
The Commission delegated to the EDO (10 CFR 1.31(c)) the authority to develop and promulgate rules as defined in the APA (5 U.S.C. 551 (4)) subject to the limitations in NRC Management Directive 9.17, Organization and Functions, Office of the Executive Director for Operations, paragraphs 0213, 038, 039, and 0310.

The enclosed rule entitled "Revised Standards for Protection Against Radiation; Minor Amendments" makes a number of minor corrective and conforming amendments to 10 CFR Part 20.

(2)  
*involve*  
This final rule does not ~~constitute~~ involve a significant question of policy, nor does it amend regulations contained in 10 CFR Parts 7, 8, or 9 Subpart C concerning matters of policy. I, therefore, find that this rule is within the scope of my rulemaking authority and am proceeding to issue it.

\_\_\_\_\_  
Date

\_\_\_\_\_  
James M. Taylor  
Executive Director for Operations



Enclosure A

Federal Register Notice of Final Rulemaking



[7590-01]

NUCLEAR REGULATORY COMMISSION

10 CFR Part 20

RIN 3150 - AA38

Revised Standards for Protection Against Radiation;  
Minor Amendments

AGENCY: Nuclear Regulatory Commission.

ACTION: Final rule: Minor corrective and conforming amendments.

SUMMARY: This final rule makes a number of minor corrective and conforming amendments to the NRC's revised standards for protection against radiation. The final rule is necessary to correct recently discovered errors in the text of the revised standards and to conform portions of regulatory text to the Commission's decision to defer mandatory implementation of the revised standards until 1994, and the recent OMB approval of the use of NRC Forms 4 and 5.

EFFECTIVE DATE: (Upon publication).

FOR FURTHER INFORMATION CONTACT: Alan Roecklein, Office of Nuclear Regulatory Research, U.S. Nuclear Regulatory Commission, Washington, DC 20555, telephone (301) 492-3746.

Enclosure A



SUPPLEMENTARY INFORMATION:

On May 21, 1991 (56 FR 23360), the Nuclear Regulatory Commission (NRC) published its revised standards for protection against radiation (10 CFR 20.1001 - 20.2401 and the associated appendices. The revised standards for protection against radiation incorporated scientific information and reflected changes in the basic philosophy of radiation protection that had occurred since the promulgation of the original regulations. The revised standards for protection against radiation became effective on June 21, 1991. However, NRC licensees were permitted to defer the mandatory implementation of these regulations until January 1, 1993.

On December 3, 1991 (56 FR 61352), the NRC published a final rule in the Federal Register that corrected a number of minor printing errors and omissions in the May 21, 1991, final rule. Since the publication of the December 3, 1991, correction and the codification of the revised standards for protection against radiation in the 1992 revision of 10 CFR Chapter I, additional typographical errors and inadvertent omissions have been discovered in the revised standards for protection against radiation. This amendment is *therefore* necessary to correct these errors in the text of the revised standards for protection against radiation. *MINOR*

On August 26, 1992 (57 FR 38588), the NRC published a final rule that extended the date by which NRC licensees are required to implement the revised standards for protection against radiation from January 1, 1993 until January 1, 1994. This amendment also makes several conforming amendments to the text of the revised standards for protection against radiation that are necessary to reflect the new mandatory implementation date.

Enclosure A



The Nuclear Regulatory Commission submitted the information collection requirements contained in this part and NRC Forms 4 and 5, to the Office of Management and Budget (OMB) for approval as required by the Paperwork Reduction Act of 1980. OMB has approved the information collection requirements contained in Part 20 under control number 3150-0014, and has approved the use of NRC Forms 4 and 5 under control number 3150-0005 and 3150-0006. This amendment <sup>thereof</sup> revises § 20.1009 to reflect these approvals.

**WT** Explanation of Changes

This final rule makes minor corrections and conforming changes for the following reasons:

In § 20.1003 Definitions, the inadvertently repeated parenthetical phrase " $(H_{t,50} = \sum H_{t,50})$ " is removed.

In 20.1009, reporting, recording, and application requirements: OMB approval, text is revised to reflect recent OMB approvals.

In § 20.1202, several misprints in the subscripts are corrected.

In § 20.1302, the word "continually" is changed to "continuously" to better reflect the intent of the provision that an individual would have to be present without interruption in an unrestricted area.

In § 20.1703, the word "are" is corrected.

In § 20.1703, the acronym NIOSH is corrected.

In § 20.2104, the word "lifetime" is deleted from the phrase "...lifetime cumulative radiation dose..." because it is redundant with



cumulative and may be misleading because the new rules do not include a lifetime dose limit.

In § 20.2104, paragraph (d) is revised to better explain the option of using a record of exposure history other than Form 4. The amendment makes it clear that all of the information required on Form 4 would need to be in the optional record.

In § 20.2104 (d), footnote 4, the first sentence is amended to make it clearer that licensees do not have to partition doses received prior to implementing the new Part 20 into external dose equivalents and internal committed dose equivalents. Also, the phrase "...occupational exposure histories obtained and recorded on NRC Form 4 before January 1, 1991, would not have included effective dose equivalent..." is changed to "...before January 1, 1994, might not...." This is more accurate since if licensees do not implement the new regulation until the mandatory compliance date of January 1, 1994, they are not required to measure and record effective dose equivalent.

In § 20.2202, the phrase "...five times the occupational annual limit on intake..." is amended by deleting the word "occupational," in order to avoid the implication that there is a "non-occupational" or "public" Annual Limit on Intake (ALI).

In Appendix B to §§ 20.1001 - 20.2401, in the paragraph under the heading "Introduction," language is added to make it clear that inhalation retention classes (D,W,Y) apply only to the inhalation ALIs and DACs given in Table 1, column 2 and 3.



the heading ~~Table 1~~ Table 2

In Appendix B, the seventh paragraph under the heading Table 1 "Occupational" which begins "Note that the dose equivalent..." is deleted because it was erroneously repeated. The same paragraph occurs as the fourth paragraph under the heading Table 1, "Occupational," where it is correct.

In Appendix B, in the third paragraph, the unit "ml" was omitted from the number  $2.4 \times 10^9$ . The unit is added.

In Appendix B, in the last paragraph under the heading Table 2, in the third sentence, the word "the" in the phrase "...presence of the one of the..." is deleted, and the words "...as being present..." are deleted from the phrase "...excluded as being present either from...."

#### Administrative Procedures Act: Waiver

P  
Because these amendments make minor corrective and conforming changes to an existing regulation, the NRC has determined that good cause exists to dispense with the notice and comment provisions of the Administrative Procedure Act (AA) pursuant to 5 U.S.C. 553 (b)(B). For the same reason, the NRC has determined that good cause exists to waive the 30-day deferred effective date provisions of the AA (5 U.S.C. 553 (d)). (3)

#### Environmental Impact: Categorical Exclusion

10 CFR  
The NRC has determined that this rule is the type of action described in categorical exclusion 51.22(c)(2). Therefore, neither an environmental impact statement nor an environmental assessment has been prepared for this final rule.



## Paperwork Reduction Act Statement

This final rule does not contain a new or amended information collection requirement subject to the Paperwork Reduction Act of 1980 (44 U.S.C.3501 et seq.). Existing requirements, including requirements contained in §§ 20.1001-20.2401, published May 21, 1991, were approved by the Office of Management and Budget, approval numbers 3150-0014.

## Regulatory Analysis

This final rule is administrative in that it corrects and conforms the text of an existing regulation. These amendments will not have a significant impact. Therefore, the NRC has not prepared a regulatory analysis for this final rule. The final regulatory analysis for the May 21, 1991, final rule examined the costs and benefits of the alternatives considered by the Commission in developing the revised standards for protection against radiation and is available for inspection in the NRC Public Document Room, 2120 L Street, NW. (Lower Level), Washington DC.

## Backfit Analysis

The NRC has determined that the backfit rule, 10 CFR 50.109, does not apply to this final rule, and therefore, that a backfit analysis is not required for this final rule because these amendments do not involve any provision which would impose backfits as defined in 10 CFR 50.109(a)(1).

*are administrative in nature and*



## List of Subjects

### 10 CFR Part 20

Byproduct material, Criminal penalties, Licensed material, Nuclear Materials, Nuclear power plants and reactors, Occupational safety and health, Packaging and containers, Radiation protection, Reporting and recordkeeping requirements, Special nuclear material, Source material, Waste treatment and disposal.

For the reasons set out in the preamble and under the authority of the Atomic Energy Act of 1954, as amended, the Energy reorganization Act of 1974, as amended, and 5 U.S.C. 552 and 553, the NRC is adopting the following corrective and conforming amendments to 10 CFR Part 20.

### PART 20 - STANDARDS FOR PROTECTION AGAINST RADIATION

1. The authority citation for Part 20 continues to read in part as follows:

AUTHORITY: Sec. 161, 68 Stat. 948, as amended (42 U.S.C.2201); Sec. 201, 88 Stat. 1242, as amended, 42 U.S.C. 5841) \*\*\*.

2. The undesignated center heading directly preceding Subpart A (§§ 20.1001 - 20.1009) is revised to read as follows:

Regulations Mandatory as of January 1, 1994, With Earlier Compliance Encouraged



Approved for Publication

(1) Draft 4 C.F. #15  
AA-38-2  
~~155~~  
~~156~~  
~~157~~  
The Commission delegated to the EDO (10 CFR 1.31(c)) the authority to develop and promulgate rules as defined in the APA (5 U.S.C. 551 (4)) subject to the limitations in NRC Management Directive 9.17, Organization and Functions, Office of the Executive Director for Operations, paragraphs 0213, 038, 039, and 0310.

The enclosed rule entitled "Revised Standards for Protection Against Radiation; Minor Amendments" makes a number of minor corrective and conforming amendments to 10 CFR Part 20.

(2) <sup>involve</sup>  
This final rule does not ~~constitute~~ involve a significant question of policy, nor does it amend regulations contained in 10 CFR Parts 7, 8, or 9 Subpart C concerning matters of policy. I, therefore, find that this rule is within the scope of my rulemaking authority and am proceeding to issue it.

\_\_\_\_\_  
Date

\_\_\_\_\_  
James M. Taylor  
Executive Director for Operations

*[Handwritten signature]*



[7590-01]

NUCLEAR REGULATORY COMMISSION

10 CFR Part 20

RIN 3150 - AA38

Revised Standards for Protection Against Radiation;  
Minor Amendments

AGENCY: Nuclear Regulatory Commission.

ACTION: Final rule: Minor corrective and conforming amendments.

SUMMARY: This final rule makes a number of minor corrective and conforming amendments to the NRC's revised standards for protection against radiation. The final rule is necessary to correct recently discovered errors in the text of the revised standards, to conform portions of regulatory text to the Commission's decision to defer mandatory implementation of the revised standards until 1994, and to reflect the recent OMB approval of the use of NRC Forms 4 and 5.

EFFECTIVE DATE: (Upon publication).

FOR FURTHER INFORMATION CONTACT: Alan Roecklein, Office of Nuclear Regulatory Research, U.S. Nuclear Regulatory Commission, Washington, DC 20555, telephone (301) 492-3740.

Enclosure A



#### SUPPLEMENTARY INFORMATION:

On May 21, 1991 (56 FR 23360), the Nuclear Regulatory Commission (NRC) published its revised standards for protection against radiation (10 CFR 20.1001 - 20.2401) and the associated appendices. The revised standards for protection against radiation incorporated scientific information and reflected changes in the basic philosophy of radiation protection that had occurred since the promulgation of the original regulations. The revised standards for protection against radiation became effective on June 21, 1991. However, NRC licensees were permitted to defer the mandatory implementation of these regulations until January 1, 1993.

On December 3, 1991 (56 FR 61352), the NRC published a final rule in the Federal Register that corrected a number of minor printing errors and omissions in the May 21, 1991, final rule. Since the publication of the December 3, 1991, correction and the codification of the revised standards for protection against radiation in the 1992 revision of 10 CFR Chapter I, additional typographical errors and inadvertent omissions have been discovered in the revised standards for protection against radiation. This amendment is necessary to correct these errors in the text of the revised standards for protection against radiation.

On August 26, 1992 (57 FR 38599), the NRC published a final rule that extended the date by which NRC licensees are required to implement the revised standards for protection against radiation from January 1, 1993, until January 1, 1994. This amendment also makes several conforming amendments to the text of the revised standards for protection against radiation that are necessary to reflect the new mandatory implementation date.

Enclosure A



The Nuclear Regulatory Commission submitted the information collection requirements contained in this part and in NRC Forms 4 and 5 to the Office of Management and Budget (OMB) for approval as required by the Paperwork Reduction Act of 1980. OMB has approved the information collection requirements contained in Part 20 under control number 3150-0014 and has approved the use of NRC Forms 4 and 5 under control numbers 3150-0005 and 3150-0006. This final rule amends § 20.1009 to reflect these approvals.

#### Explanation of Changes

This final rule makes minor corrections and conforming changes for the following reasons:

In the § 20.1003 definition of dosimetry processor, the inadvertently repeated parenthetical phrase " $(H_{t,50} = \sum w_r H_{r,50})$ " is removed.

The text of § 20.1009, Reporting, recording, and application requirements: OMB approval, is revised to reflect recent OMB approvals.

In § 20.1202, several misprints in the subscripts are corrected.

In § 20.1302, the word "continually" is changed to "continuously" to better reflect the intent of the provision that an individual would have to be present without interruption in an unrestricted area.

In § 20.1703, the word "are" is corrected.

In § 20.1703, the acronym NIOSH is corrected.

In § 20.1703(d), the title of Regional Administrator is corrected.

In § 20.2104, the word "lifetime" is deleted from the phrase "...lifetime cumulative radiation dose..." because it is redundant with



cumulative and may be misleading because the new rules do not include a lifetime dose limit.

In § 20.2104, paragraph (d) is revised to better explain the option of using a record of exposure history other than Form 4. The amendment makes it clear that all of the information required on Form 4 would need to be in the optional record.

In § 20.2104 (d), footnote 4, the first sentence is amended to make it clearer that licensees do not have to partition doses received prior to implementing the new Part 20 into external dose equivalents and internal committed dose equivalents. Also, the phrase "...occupational exposure histories obtained and recorded on NRC Form 4 before January 1, 1991, would not have included effective dose equivalent..." is changed to "...before January 1, 1994, might not...." This is more accurate since if licensees do not implement the new regulation until the mandatory compliance date of January 1, 1994, they are not required to measure and record effective dose equivalent.

In § 20.2202, the phrase "...five times the occupational annual limit on intake..." is amended by deleting the word "occupational" in order to avoid the implication that there is a "nonoccupational" or "public" Annual Limit on Intake (ALI).

In Appendix B to §§ 20.1001 - 20.2401, in the paragraph under the heading "Introduction," language is added to make it clear that inhalation retention classes (D,W,Y) apply only to the inhalation ALIs and DACs given in Table 1, columns 2 and 3.



In Appendix B, the seventh paragraph under the heading Table 1 "Occupational" which begins "Note that the dose equivalents..." is deleted because it was erroneously repeated. The same paragraph occurs as the fourth paragraph under the heading Table 1, "Occupational," where it is correct.

In Appendix B, in the third paragraph under the heading Table 2, the unit "ml" was omitted from the number  $2.4 \times 10^9$ . The unit is added.

In Appendix B, in the last paragraph under the heading Table 2, in the third sentence, the word "the" in the phrase "...presence of the one of the..." is deleted, and the words "...as being present..." are deleted from the phrase "...excluded as being present either from...."

In Appendix F, III.B.5 and III.D.2., recordkeeping requirements are changed to "...until the license is terminated." This change was made to all recordkeeping requirements, and these two were inadvertently omitted. This change is consistent with the OMB approval.

#### Administrative Procedures Act: Waiver

Because these amendments make minor corrective and conforming changes to an existing regulation, the NRC has determined that good cause exists to dispense with the notice and comment provisions of the Administrative Procedure Act (AA)<sup>2</sup> pursuant to 5 U.S.C. 553 (b)(B). For the same reason, the NRC has determined that good cause exists to waive the 30-day deferred effective date provisions of the AA (5 U.S.C. 553 (d)).

(3)

*Administrative Procedures Act*



## Environmental Impact: Categorical Exclusion

16CFR  
The NRC has determined that this rule is the type of action described in categorical exclusion 51.22(c)(2). Therefore, neither an environmental impact statement nor an environmental assessment has been prepared for this final rule.

## Paperwork Reduction Act Statement

This final rule does not contain a new or amended information collection requirement subject to the Paperwork Reduction Act of 1980 (44 U.S.C. 3501 et seq.). Existing requirements were approved by the Office of Management and Budget, approval number 3150-0014.

## Regulatory Analysis

This final rule is administrative in that it corrects and conforms the text of an existing regulation. These amendments will not have a significant impact. Therefore, the NRC has not prepared a regulatory analysis for this final rule. The final regulatory analysis for the May 21, 1991, final rule examined the costs and benefits of the alternatives considered by the Commission in developing the revised standards for protection against radiation and is available for inspection in the NRC Public Document Room, 2120 L Street, NW. (Lower Level), Washington DC.



## Backfit Analysis

The NRC has determined that the backfit rule, 10 CFR 50.109, does not apply to this final rule, and therefore, that a backfit analysis is not required for this final rule because these amendments do not involve any provision which would impose backfits as defined in 10 CFR 50.109(a)(1).

List of Subjects

*are administrative in nature  
and*

### 10 CFR Part 20

Byproduct material, Criminal penalties, Licensed material, Nuclear Materials, Nuclear power plants and reactors, Occupational safety and health, Packaging and containers, Radiation protection, Reporting and recordkeeping requirements, Special nuclear material, Source material, Waste treatment and disposal.

For the reasons set out in the preamble and under the authority of the Atomic Energy Act of 1954, as amended, the Energy Reorganization Act of 1974, as amended, and 5 U.S.C. 552 and 553, the NRC is adopting the following corrective and conforming amendments to 10 CFR Part 20.

### PART 20 - STANDARDS FOR PROTECTION AGAINST RADIATION

1. The authority citation for Part 20 continues to read in part as follows:

AUTHORITY: Sec. 161, 68 Stat. 948, as amended (42 U.S.C.2201); Sec. 201, 88 Stat. 1242, as amended, (42 U.S.C. 5841) \*\*\*.



2. The undesignated center heading directly preceding Subpart A (§§ 20.1001 - 20.1009) is revised to read as follows:

Regulations Mandatory as of January 1, 1994, With Earlier Compliance Encouraged.

3. In § 20.1003, the term "Dosimetry processor" is revised to read as follows:

§ 20.1003 Definitions.

\* \* \* \* \*

"Dosimetry processor" means an individual or organization that processes and evaluates individual monitoring equipment in order to determine the radiation dose delivered to the equipment.

\* \* \* \* \*

4. Section 20.1009, is revised to read as follows:

\* \* \* \* \*

§ 20.1009 Reporting, recording, and application requirements: OMB approval

(a) The Nuclear Regulatory Commission has submitted the information collection requirements contained in this part to the Office of Management and Budget (OMB) for approval as required by the Paperwork Reduction Act of 1980 (44 U.S.C. 3501 et seq.). OMB has approved the information collection requirements contained in this part under control number 3150-0014.

(b) The approved information collection requirements contained in this part appear in §§ 20.1101, 20.1202, 20.1204, 20.1206, 20.1301, 20.1501, 20.1601, 20.1603, 20.1703, 20.1901, 20.1902, 20.1904, 20.1906, 20.2002,



20.2004, 20.2006, 20.2102, 20.2103, 20.2104, 20.2105, 20.2106, 20.2107, 20.2108, 20.2109, 20.2110, 20.2201, 20.2202, 20.2203, 20.2204, 20.2206, and Appendix F to 20.1001-20.2401.

(c) This part contains information collection requirements in addition to those approved under the control number specified in paragraph (a) of this section. These information collection requirements and the control numbers under which they are approved are as follows:

(1) In § 20.2104, HRC Form 4 is approved under control number 3150-0005.

(2) In §§ 20.2106 and 20.2206, HRC Form 5 is approved under control number 3150-0006.

§ 20.1202 [Amended]

5. In § 20.1202(b)(3), footnote 1, the word "factors" is revised to read "factor."; the phrase "committed dose equivalent,  $H_{m,n}$ ," is revised to read "committed dose equivalent,  $H_{T,n}$ "; the phrase "maximum weighted value of  $H_{50}$ " is revised to read "maximum weighted value of  $H_{T,50}$ "; and the parenthetical "(i.e.,  $w_T H_{50,T}$ )" is revised to read "(i.e.,  $w_T H_{T,50}$ )."

§ 20.1302 [Amended]

6. In § 20.1302(b)(2)(ii), the word "continually" is revised to read "continuously."

§ 20.1703 [Amended]

7. In the first sentence of § 20.1703(b)(1), "ae" is revised to read "are."



8. In § 20.1703(c), "NOISH" is revised to read "NIOSH."

9. In § 20.1703(d), the title of the addressee is changed from "Director" to "Regional Administrator."

§ 20.2104 [Amended]

10. In § 20.2104, paragraphs (a)(2) and (c)(2) are amended by removing the word "lifetime," and paragraph (d) is revised to read as follows:

§ 20.2104 Determination of prior occupational dose.

\* \* \* \* \*

(d) The licensee shall record the exposure history of each individual, as required by paragraph (a) of this section, on NRC Form 4, or other clear and legible record, including all of the information required by Form 4<sup>4</sup>. The form or record must show each period in which the individual received occupational exposure to radiation or radioactive material and must be signed by the individual who received the exposure. For each period for which the licensee obtains reports, the licensee shall use the dose shown in the report in preparing the NRC Form 4. For any period in which the licensee does not obtain a report, the licensee shall place a notation on the NRC Form 4 indicating the periods of time for which data are not available.

\* \* \* \* \*

---

<sup>4</sup>Licensees are not required to partition historical dose between external dose equivalent(s) and internal committed dose equivalent(s). Further, occupational exposure histories obtained and recorded on NRC Form 4 before January 1, 1994, might not have included effective dose equivalent, but may be used in the absence of specific information on the intake of radionuclides by the individual.



§ 20.2202 [Amended]

11. In § 20.2202(a)(2), the word "occupational" is removed.

Appendix B to §§ 20.1001 - 20.2401 [Amended]

12. In Appendix B to §§ 20.1001 - 20.2401, the paragraph under the heading "Introduction" is amended by adding the following sentence after the third sentence:

"The class (D, W, or Y) given in the column headed "Class" applies only to the inhalation ALIs and DACs given in Table 1, columns 2 and 3."

13. In Appendix B to §§ 20.1001 - 20.2401, the seventh paragraph under the heading Table 1 "Occupational" which begins "Note that the dose equivalents..." is removed.

14. In Appendix B to §§ 20.1001 - 20.2401, in the second sentence of the third paragraph under the heading Table 2 which begins "The air concentration values...", the unit "ml" is added after the number  $2.4 \times 10^3$ ."

15. In Appendix B to §§ 20.1001 - 20.2401, the last sentence of the last paragraph under the heading Table 2 is revised to read as follows:

"The limit for the unknown mixture is defined when the presence of one of the listed radionuclides cannot be definitely excluded either from knowledge of the radionuclide composition of the source or from actual measurements."

16. Appendix F, Section III.B.5., is revised to read, "...and retain information from generator manifest until the license is terminated;...."



17. Appendix F, Section III.D.2., is revised to read, "Maintain copies of all completed manifests or equivalent documentation until the license is terminated;...."

Dated at Rockville, Maryland, this \_\_\_\_ day of \_\_\_\_\_, 1992.

For the Nuclear Regulatory Commission.

---

James M. Taylor,  
Executive Director for Operations.





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

MAR 3 1993

MEMORANDUM FOR: Don Lanham, DCB, DISS, ADM  
FROM: Alan K. Roecklein, RPH&B, DRA, RES  
SUBJECT: REGULATORY HISTORY (57 FR 57877 - 12/08/92)

Enclosed for your processing are regulatory documents considered to be of central relevance to the final rulemaking entitled "Revised Standards for Protection Against Radiation; Minor Amendments." Also enclosed is an index of these documents. The designator assigned by the Rules Review and Directives Branch is AA38-2 and is noted in the upper right hand corner of the cover page for each document.

A handwritten signature in cursive script, appearing to read "Alan K. Roecklein", is positioned above the typed name.

Alan K. Roecklein  
Radiation Protection & Health Effects Branch  
Division of Regulatory Applications  
Office of Nuclear Regulatory Research

Enclosures:

1. Index - 10 CFR 20
2. Documents

cc: [unclear] to: M. Lanham, ADM



PDR INDEX

No.	Date	Description
1	12/08/92	FRN - Final Rule: Revised Standards for Protection Against Radiation; Minor Amendments (57 FRN 57877)
2	12/03/92	Copy of 10 CFR 20 - Revised Standards for Protection Against Radiation; Minor Amendments
3	11/13/92	Memo from E. S. Beckjord to J. M. Taylor on Minor Amendments to 10 CFR 20, with FRN and Draft Daily Staff Notes Item enclosed
4	10/09/92	Memo from C. J. Heltemes requesting office concurrence on Final Amendment from:

Robert M. Bernero, NMSS  
Thomas E. Murley, NRR  
Martin G. Malsch, OGC  
Patricia G. Norry, ADM  
Gerald F. Cranford, IRM



# CENTRAL FILES INDEX

No.	Date	Description
1	12/03/92	Memo for M. Lesar from B. Shelton on Minor Amendments to 10 CFR 20 with modified "Information Collection Requirements: OMB Approval" enclosed.
2	11/05/92	Comments from S. Treby, OGC, on Minor Amendments to 10CFR20
3	10/30/92	Comments from R. Bernero, NMSS, on Minor Amendments to 10 CFR 20
4	10/29/92	Concurrence from F. Gillespie, NRR, on Minor Amendments to 10CFR20
5	10/20/92	Comments from P. G. Norry, ADM, on Minor Amendments to 10 CFR 20
6	10/16/92	Comments from P. Cota, NRR, on Minor Amendments to 10CFR20
7	10/15/92	Comments from E. Heumann, OC, on Minor Amendments to 10CFR20
8	10/09/92	Comments from M. Malsch, OGC, on Minor Amendments to 10CFR20
9	09/30/92	Comments from M. Lesar, ADM, on Minor Amendments to 10CFR20
10	09/03/92	Notice of OMB Action on NRC Form 5
11	09/03/92	Notice of OMB Action on NRC Form 4
12	undtd	Draft 1 of Taylor memo and FRN - Minor Amendments to 10CFR20
13	undtd	Draft 2 of Taylor memo and FRN
14	09/25/92	Draft 3 of Taylor memo and FRN
15	undtd	Draft 4 of Taylor memo and FRN





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

October 29, 1992

— Bill Morris <sup>CF</sup> AA-38-2  
— Don Cool  
Pace/Klein #4

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

FROM: Frank P. Gillespie, Director  
Program Management, Policy Development  
and Analysis Staff  
Office of Nuclear Reactor Regulation

SUBJECT: OFFICE CONCURRENCE ON FINAL AMENDMENT TO 10 CFR  
PART 20 - REVISED STANDARDS FOR PROTECTION  
AGAINST RADIATION; MINOR AMENDMENTS

In response to your memorandum dated October 9, 1992, to  
T. Murley, et al, NRR has reviewed the subject document. We  
concur with the final amendment.

Frank P. Gillespie, Director  
Program Management, Policy Development  
and Analysis Staff  
Office of Nuclear Reactor Regulation

cc: T. Murley  
F. Miraglia  
J. Partlow  
W. Russell  
D. Crutchfield

11050362