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RECORD #98

TITLE: Implementation of "Transit Worker" Rule Change

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

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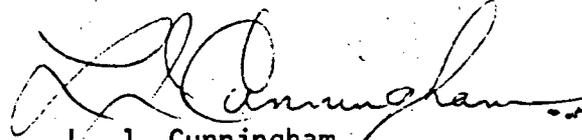
MEMORANDUM FOR: ~~G. H. Smith, Chief, FFMS Branch, Region I~~
J. T. Sutherland, Chief, FFMS Branch, Region II
A. B. Davis, Chief, FFMS Branch, Region III
G. D. Brown, Chief, FFMS Branch, Region IV
H. E. Book, Chief, FFMS Branch, Region V

FROM: L. J. Cunningham, Division of FFMSI

SUBJECT: IMPLEMENTATION OF "TRANSIENT WORKER" RULE CHANGE

For your information, the enclosed notice was sent to all NRC licensees in June of this year alerting them of the new "transient worker" rule. This change became effective on August 20, 1979.

If noncompliance with 20.102(a) is identified, this should not be considered an overexposure but rather a failure of administrative controls since a regulatory limit is not involved. This information will be factored into the manual chapter's interpretation section.


L. J. Cunningham
Division of FFMSI

cc: Leo B. Higginbotham



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

JUN 18 1979

NOTICE TO NRC LICENSEES AND OTHER INTERESTED PERSONS

Enclosed is a copy of a notice of rule making published by the Nuclear Regulatory Commission in the Federal Register amending 10 CFR Parts 19 and 20 of the Commission's regulations.

The amendments to the regulations are designed to minimize the possibility of overexposure of short-term workers, sometimes called "transient workers", and other individuals who may be employed by, or work in the restricted areas of, more than one licensee within a single calendar quarter, and individuals who may work for more than one licensee at a time (moonlighters).

The amendments require NRC licensees: (a) to obtain from a prospective employee information on occupationally related doses received during a current calendar quarter from sources outside of the licensee's control if there is a chance that the employee may subsequently receive a dose in excess of 25 percent of the regulatory dose-limiting standards in the facility of the new employer; (b) to furnish prompt estimates of occupational dose, at the request of the individual, upon termination of work; and (c) to keep associated records.

Notice of proposed rule making on this matter was published in the Federal Register (43 FR 4865) on February 6, 1978, and copies of the notice were sent to licensees by letter dated February 13, 1978.

Note that these amendments do not delete the provisions of §20.101(b) regarding the dose-averaging formula 5(N-18) or the requirements in §20.102 for obtaining the occupational exposure history of an individual on Form NRC-4, or equivalent, before allowing the individual to receive doses up to 3 rems per calendar quarter. Notice of proposed amendments to 10 CFR Part 20 on these matters were published in the Federal Register (44 FR 10388) on February 20, 1979, and remain pending at this time.

Robert B. Minogue

Robert B. Minogue, Director
Office of Standards Development

Enclosure:
Notice of Rule Making

Rules and Regulations

Federal Register

Vol. 44, No. 110

Wednesday, June 6, 1979

This section of the FEDERAL REGISTER contains regulatory documents having general applicability and legal effect, most of which are keyed to and codified in the Code of Federal Regulations, which is published under 50 titles pursuant to 44 U.S.C. 1510. The Code of Federal Regulations is sold by the Superintendent of Documents. Prices of new books are listed in the first FEDERAL REGISTER issue of each month.

NUCLEAR REGULATORY COMMISSION

10 CFR Parts 19 and 20

Control of Radiation Exposure to Transient Workers

AGENCY: U.S. Nuclear Regulatory Commission.

ACTION: Final rule.

SUMMARY: The Nuclear Regulatory Commission (NRC) is amending its standards for protection against radiation. The amendments require NRC licensees to control the total occupational radiation dose of individuals who work in NRC-licensed activities. Implementing changes require licensees: (a) to obtain from a prospective employee information on occupationally related doses received during a current calendar quarter from sources outside of the licensee's control if there is a chance that the employee may subsequently receive a dose in excess of 25% of the regulatory standards in the facility of the new employer; (b) to furnish prompt estimates of occupational dose, at the request of the individual, upon termination of work; and (c) to keep associated records. The amendments are intended to minimize the possibility of overexposure of (a) short-term workers, sometimes called "transient workers," and other individuals who may be employed by, or work in the restricted areas of, more than one licensee within a single calendar quarter and (b) individuals who may work for more than one licensee at a time (moonlighters).

EFFECTIVE DATE: August 20, 1979.

Note.—The NRC has submitted this rule to the Comptroller General for such reviews as may be appropriate under the Federal Reports Act, as amended, 44 U.S.C. 3512. The

date on which the reporting and record keeping requirements of this rule become effective, unless advised to the contrary, accordingly reflects inclusion of the 45 day period which that statute allows for such review (44 U.S.C. 3512(c)(2)).

FOR FURTHER INFORMATION CONTACT: Mr. Walter S. Cool, Office of Standards Development, U.S. Nuclear Regulatory Commission, Washington, D.C. 20555 (phone 301-443-5970).

SUPPLEMENTARY INFORMATION: On February 6, 1978, the NRC published in the Federal Register (43 FR 4865) a notice of proposed amendments to 10 CFR Parts 19 and 20 designed to minimize the possibility of overexposure of transient and moonlighting workers. By letter dated February 13, 1978, copies of the notice of proposed rule making were sent to all NRC specific licensees. The notice provided a period of sixty (60) days for public comment. Copies of a value/impact assessment of the proposed amendments prepared by the NRC staff were sent to individuals who requested further information.

After careful consideration of the comments on the notice of proposed amendments and the other factors involved, the Commission has adopted the amendments in effective form with the minor changes discussed below.

Forty-one comments were received in response to the notice. Of these, twenty-one stated agreement with the concept of controlling the total occupational dose to workers; eight stated opposition to the proposed amendments. Many of the commenters expressed concern about some aspect of the proposed amendments, or suggested improvements. Several offered suggested changes in sections of the regulations not directly involved in the proposed amendments.

A number of commenters did not appear to understand that the proposed amendments would apply only to situations in which a licensee permits an individual to receive up to 1.25 rems per calendar quarter without obtaining information on prior radiation exposure, as provided by § 20.101(a), 10 CFR Part 20. Some of the commenters erroneously interpreted the proposed amendments to require a licensee to obtain exposure histories from previous employers of all new workers, as is currently required by §§ 20.101(b) and 20.102, 10 CFR Part 20, before permitting an individual to

receive up to 3 rems per quarter within the 5(N-18) dose averaging formula. The licensee may, of course, do so. However, it is the Commission's intent that the worker would provide the licensee-employer with the exposure data stated on an estimate provided at termination by a previous licensee. It is recognized that workers for various reasons may not have the estimates when reporting for work, and the amendments require a licensee to obtain only a signed statement from the worker, without verification with previous employers, of the exposure received by the individual during the current calendar quarter.

This provision avoids the concern expressed by one commenter that a licensee may be unable to obtain information on occupational dose received by an individual during prior work in operations not licensed by the NRC.

The Commission has not changed the degree of flexibility available to licensees in designating calendar quarters (§ 20.3(a)(4)), as recommended by some commenters. While it is recognized that some short-term workers may receive two exposures approaching 1.25 rems in a short period of time due to the difference in calendar quarters being used by two licensees, the NRC staff believes that the probability of this happening is acceptably small. The wording of § 19.13(e) and § 20.102(a) require both the licensee providing an estimate of dose at termination, and the individual providing a subsequent licensee-employer with a signed statement regarding prior dose, to specifically identify the calendar quarter involved. Further, there were reasons for providing the degree of flexibility in the designation of calendar quarters during previous rule making actions. They included the need to accommodate different monitoring periods being used (weekly, bi-weekly, monthly, quarterly) and the need to permit some spread of the work load of persons providing personnel monitoring services.

Other commenters stated that the amendments imply that a licensee can be required to furnish personnel monitoring to persons while not under the licensee's control, and that the licensee can be held responsible for occupational dose received at another licensee's facility. Licensees may choose

to provide monitoring equipment to their employees while they are assigned to work in another licensee's restricted areas, or while moonlighting, in order to verify the information on exposure provided through the worker by the second licensee. However, each licensee is only required (1) to provide monitoring to each individual in the licensee's restricted area under the circumstances specified in § 20.202, (2) to provide an estimate at termination, if requested, and (3) to account for previous exposure information, made available by the worker, in limiting further exposure to that worker.

The Commission considers it necessary for licensees to control the total occupational dose of workers and does not agree with a number of commenters who consider the implementing controls needlessly restrictive or unduly burdensome on licensees. The Commission has chosen this method and level of implementation after balancing factors including (1) the previous absence of requirement for any effort to determine prior exposure, (2) the need for prompt exposure information permitting control of exposure to transient workers, that is, the information must be available before the individual appears for work at another licensee's restricted area, (3) high cost and technical difficulties associated with alternative methods of controlling total occupational dose, (4) potential concern regarding employability or invasion of privacy, and (5) the likelihood that, in the absence of specification of implementing action that is acceptable to the NRC, many licensees would expend greater effort than may be deemed necessary by the Commission. The proposed amendment to § 20.102(a) would require a licensee to obtain only a statement of prior exposure during the current calendar quarter from any new worker who is likely to receive, in the licensee's restricted area(s), more than 25% of the applicable standards in §§ 20.101(a) and 20.104(a), 10 CFR Part 20, during the balance of the quarter.¹ The Commission believes that a majority of licensees do not experience doses to their workers greater than 25 percent of the standards

¹ One commenter questioned the basis for selecting 25 percent of the applicable standards in §§ 20.101(a) and 20.104(a) as the threshold for requiring licensees to obtain statements of current calendar quarter doses. That value was selected rather arbitrarily but recognizes (1) that, although most licensees provide personnel monitoring to evaluate any potential exposure, such monitoring is not required for exposure below 25 percent of the standard § 20.202, and (2) that there have been very few instances in which an individual terminated employment or work assignment with more than four licensees in a single calendar quarter.

and, therefore, will not be required to obtain the statement. The proposed new § 19.13(e) would require provision to a worker who requests it, of an estimate (not the finally determined monitoring result) of the dose received during the terminating calendar quarter. The Commission believes that only a small fraction of terminating workers will request the estimate, greatly limiting the potential cost of implementation by licensees.

Note that although the amended regulations require control of the total occupational dose received by workers, the statistical summary report of personnel monitoring data to be filed annually pursuant to § 20.407, and the reports of exposure to radiation and radioactive material to be filed upon termination of employment with specified licensees or completion of a work assignment in the licensee's facility pursuant to § 20.408, should include only that dose received during the specified period of time and while engaged in operations authorized by that license. These reports should not include personnel monitoring data obtained from previous employers of an individual or any estimates of prior dose, in order to avoid duplicate reporting of individual doses.

A number of commenters pointed out that proposed § 19.13(e) was vague as to the time at which the estimate is to be provided to the terminating worker. The wording in § 19.13(e) has been changed to specify that the estimate is to be provided at termination.

Other commenters asked what assumptions a licensee-employer is to make when informed that an individual has received a dose reasonably estimated to be less than 25% of the applicable standards. The licensee would have been permitted to ignore such doses. Further consideration of the small difference in effort required for a licensee to provide a numerical estimate of dose or to provide only a statement that the dose was reasonably estimated to be less than 25% of the applicable standard, has led the Commission to require provision of a numerical estimate.

In the event that an individual informs a licensee-employer about radiation dose received during prior employment during the current calendar quarter, but is unable to provide an estimate of that dose, there are several alternatives available to the licensee. The licensee may: (1) decide not to hire the individual for work involving further exposure because of the unknown dose; (2) hire the individual for work involving only low levels of exposure, less than the

criteria under which personnel monitoring equipment is required to be provided, during the remainder of the calendar quarter; or (3) take the effort to obtain the exposure history of the individual from the previous employer. The licensee is not required to obtain additional statements for each individual during subsequent calendar quarters of continued employment, as one commenter assumed.

Questions were raised regarding the reporting of overexposures. In the event that a licensee permits an individual to be exposed such that the total occupational dose, including any personnel monitoring data or estimates of dose provided to the licensee, exceeds the dose-limiting standards, that licensee must report the overexposure to the NRC pursuant to § 20.405, and to the individual pursuant to § 19.13(d), and will be subject to appropriate enforcement action. In the event that the licensee limits exposure of an individual on the basis of the best information available, but finds after the fact, that the finally determined dose of the individual was higher than previously known or estimated and, therefore, the individual exceeded the dose-limiting standards, the NRC and the individual shall be informed, as noted above, but no enforcement action will be taken against the licensee.

One commenter suggested that an exemption be provided to the requirements of §§ 19.13(e) and 20.102(a), as proposed, for non-licensed persons who maintain dosimetry which provides cumulative dose to their employees. The Commission commends such persons for their concern and provision for the protection of their employees. However, the rule was never intended to apply to other than licensees and there is no need for any exemption for non-licensees.

Several commenters noted that there was no indication of the accuracy required for the estimate of dose at termination. This requirement was omitted deliberately, knowing that some licensees have the capability of providing final determination of personnel monitoring results on short notice while other licensees may have to rely on other mechanisms for estimating dose, such as pocket dosimeter readings or estimating the dose from radiation survey data and associated occupancy time. It is the Commission's intent that licensees should provide the worker with the best exposure information available at the time of termination. This information should be the final determination, if practicable. If pocket dosimeter readings or other means of

estimation are used the licensee should apply any correction factors or conservatism that the licensee has found appropriate to relate the data to finally determined monitoring results. It is the Commission's further intent that a subsequent employer-licensee use this best information, as provided by the worker, and maintain further exposure of the worker as low as is reasonably achievable within the 1.25 rems per calendar quarter standard, including the estimated prior dose. If the finally determined monitoring result for the individual is received during the period of employment of the individual, that result should replace the estimated value. The licensee is required (pursuant to §§ 20.405 and 19.13(d)) to notify the Commission and the individual of an exposure, including the estimate, found to be in excess of the standard, because such an occurrence would indicate a failure by that licensee to control contribution to the individual's dose. By the same token, a licensee will not be found in non-compliance with the regulations if the licensee controlled exposure of the individual within the standards, using the estimate (best information available to the licensee at the time), even though the dose is subsequently found to exceed the standard upon receipt of a finally determined monitoring result.

Several commenters noted that the amendments may limit the employability of a worker whose dose has approached or exceeded the standard. Licensees could not allow an individual who has received a dose approaching the standard to be further exposed during the remainder of the calendar quarter in which the exposure occurred, but may allow the individual to receive further exposure, within the dose-limiting standards, in subsequent calendar quarters. The potential for such career interference exists under the present regulations and could be increased by the amendments. The Commission has no basis for estimating the existing or potential increase in impact, but believes it to be small. Many transient workers are highly skilled individuals who are needed to perform certain specialized tasks, often under contracts with a number of licensees. Because of their skills, such workers are very unlikely to lose employment. Rather, they would likely be employed in tasks involving little or no additional radiation dose. Other transient workers are much less specialized and may be hired from local pools to accomplish essential work. These workers would, upon termination, be available for other requests for labor in their area, with low

probability of employment with the same or another licensee.

It is recognized that the proposed method of controlling total occupational dose depends upon cooperation by the employee with the licensee in providing information on previous and on-going employment involving radiation dose. The NRC does not exercise direct regulatory control over individual workers, and therefore cannot require individual workers to provide accurate dose information to licensees, and the NRC will not take enforcement action against a licensee solely because an individual worker withholds or falsifies information. While recognizing the potential for economic incentive for a worker to withhold or otherwise falsify dose information, the Commission believes that most individuals who have been instructed in the health protection problems associated with exposure to radiation and radioactive materials pursuant to § 19.12, 10 CFR Part 19, will recognize the benefit to their health and will cooperate with licensees. Further, NRC does not regulate all of the sources of occupational dose. A suggested requirement for licensees to provide monitoring information to subsequent licensee-employers would not apply to operations not licensed by NRC and would, therefore, provide only partial information.

One commenter pointed out that the regulation should require another statement from a worker who is rehired following termination of employment or work assignment in a licensee's restricted area. The words "during each employment or work assignment" have been added to § 20.102(a) to accommodate that comment.

One commenter noted that the proposed amendments addressed transient and moonlighting workers but did not specifically recognize the potential for exposure of individuals who seek secondary employment while temporarily "laid off". The Commission believes that, if the worker has not been terminated, but has some status as an employee, the secondary work is comparable to moonlighting.

The NRC staff has been unable to devise acceptable regulatory methods for controlling the total occupational dose to moonlighters, and concludes that control may be best effected by agreements or conditions of employment between the licensee and the worker. Close cooperation between licensees and workers, including frequent exchange of monitoring information or agreement to limit exposures to fractions of the standards, will be necessary. The potential for labor-

management controversy over such working agreements is recognized. The Commission believes that controversy can be minimized in the best interest of the workers and the licensees.

The Commission considered, as one alternative in the development of the proposed regulations, the imposition of short-term dose standards as suggested by one commenter. Short-term standards, such as 100 millirems of whole-body dose per week, or weekly prorated increments of quarterly standards, would have the desirable effects of (1) essentially precluding the possibility of overexposure of transient workers during multiple employments, (2) impacting on only those licensees employing short-term workers, and (3) encouraging increased efforts to reduce doses and dose rates by design and engineering changes. However, this alternative would require the use of larger numbers of workers to accomplish essential work at existing facilities. Because workers are exposed while entering and leaving a work area, and while orienting to the work to be done, as well as during actual performance of the work, the use of more workers would increase the collective (man-rem) dose. This alternative would be costly and unproductive for the licensees and would not assure that moonlighting workers do not receive doses in excess of the standards.

The procedural alternative of imposing controls on the total doses of transient and moonlighting workers by means of technical specifications or license conditions in the licenses of those activities experiencing the use of such workers, suggested by another commenter, was also rejected. The extent of use of short-term or moonlighting workers is not precisely known, and this alternative could result in arbitrary, non-uniform application of the added controls and the burden associated with them.

One commenter noted that the proposed amendments did not require action to control the total exposure of workers to intake of radioactive materials during multiple employments. Such control was considered but has not been proposed or effected at this time. The information available to the Commission, while not comprising the total experience of licensees, indicates that most licensees do not experience exposures exceeding 25% of the standards. Prior to amendment of § 20.103, 10 CFR Part 20, published November 29, 1976 (41 FR 52300), exposure to concentrations of radioactive material in air was limited

on the basis of 40 hours during any seven consecutive days. The existing regulation, while controlling the quarterly intake of radioactive materials, requires precautions which are considered to make additional control over exposure during multiple employments unnecessary at this time. Consideration is being given to further amendment to the regulations that would, if adopted, require the summation of risk from external dose equivalent and internal committed dose equivalent.

Pursuant to the Atomic Energy Act of 1954, as amended, the Energy Reorganization Act of 1974, as amended, and sections 552 and 553 of title 5 of the United States Code, the following amendments to Title 10, Chapter I, Code of Federal Regulations, Parts 19 and 20, are published as a document subject to codification.

1. A new paragraph (e) is added to § 19.13, 10 CFR Part 19, to read as follows:

§ 19.13 Notifications and reports to individuals.

(e) At the request of a worker who is terminating employment in a given calendar quarter with the licensee in work involving radiation dose, or of a worker who, while employed by another person, is terminating assignment to work involving radiation dose in the licensee's facility in that calendar quarter, each licensee shall provide to each such worker, or to the worker's designee, at termination, a written report regarding the radiation dose received by that worker from operations of the licensee during that specifically identified calendar quarter or fraction thereof, or provide a written estimate of that dose if the finally determined personnel monitoring results are not available at that time. Estimated doses shall be clearly indicated as such.

2. Paragraph 20.1(b) of 10 CFR Part 20 is amended to read as follows:

§ 20.1 Purpose.

(b) The use of radioactive material or other sources of radiation not licensed by the Commission is not subject to the regulations in this part. However, it is the purpose of the regulations in this part to control the possession, use, and transfer of licensed material by any licensee in such a manner that the total dose to an individual (including exposures to licensed and unlicensed radioactive material and to other unlicensed sources of radiation, whether in the possession of the licensee or any

other person, but not including exposures to radiation from natural background sources or medical diagnosis and therapy) does not exceed the standards of radiation protection prescribed in the regulations in this part.

3. In § 20.3(a), 10 CFR Part 20, a new paragraph (19) is added to read as follows:

§ 20.3 Definitions.

(a) As used in this part:

(19) "Termination" means the end of employment with the licensee or, in the case of individuals not employed by the licensee, the end of a work assignment in the licensee's restricted areas in a given calendar quarter, without expectation or specific scheduling of reentry into the licensee's restricted areas during the remainder of that calendar quarter.

4. The section heading, prefatory language of paragraph (a), prefatory language of paragraph (b), and paragraph (b)(1) in § 20.101, 10 CFR Part 20, are amended to read as follows:

§ 20.101 Radiation dose standards for individuals in restricted areas.

(a) In accordance with the provisions of § 20.102(a), and except as provided in paragraph (b) of this section, no licensee shall possess, use, or transfer licensed material in such a manner as to cause any individual in a restricted area to receive in any period of one calendar quarter from radioactive material and other sources of radiation a total occupational dose in excess of the standards specified in the following table:

(b) A licensee may permit an individual in a restricted area to receive a total occupational dose to the whole body greater than that permitted under paragraph (a) of this section, provided:

(1) During any calendar quarter the total occupational dose to the whole body shall not exceed 3 rems; and

5. Section 20.102, 10 CFR Part 20, is amended to delete existing paragraph (a), to add a new paragraph (a), and to amend paragraph (b), to read as follows:

§ 20.102 Determination of prior dose.

(a) Each licensee shall require any individual, prior to first entry of the individual into the licensee's restricted area during each employment or work assignment under such circumstances that the individual will receive or is likely to receive in any period of one calendar quarter an occupational dose

in excess of 25 percent of the applicable standards specified in § 20.101(a) and § 20.104(a), to disclose in a written, signed statement, either (1) that the individual had no prior occupational dose during the current calendar quarter, or (2) the nature and amount of any occupational dose which the individual may have received during that specifically identified current calendar quarter from sources of radiation possessed or controlled by other persons. Each licensee shall maintain records of such statements until the Commission authorizes their disposition.

(b) Before permitting, pursuant to § 20.101(b), any individual in a restricted area to receive an occupational radiation dose in excess of the standards specified in § 20.101(a), each licensee shall:

Effective date. These amendments become effective on August 20, 1979.

(Sec. 161, Pub. Law 83-703, 88 Stat. 948 (42 U.S.C. 2201); Sec. 201, Pub. Law 83-430, 88 Stat. 1242 (42 U.S.C. 5841))

Dated at Washington, D.C. this 30th day of May 1979.

For the Nuclear Regulatory Commission,
Samuel J. Chilk,

Secretary of the Commission.

[FR Doc. 79-17340 Filed 6-5-79; 8:45 am]

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FEDERAL RESERVE SYSTEM

12 CFR Part 217

[Reg. Q, Docket No. R-0227]

Interest on Deposits; Pooling of Funds To Obtain Higher Interest Rates

AGENCY: Board of Governors of the Federal Reserve System.

ACTION: Final interpretation.

SUMMARY: This interpretation provides that under Regulation Q member banks may accept funds pooled by depositors but may not solicit pooled funds through advertisement, announcement or other notice where the purpose of such pooling is to pay higher rates of interest on deposits.

EFFECTIVE DATE: Immediately.

FOR FURTHER INFORMATION CONTACT: Gilbert T. Schwartz, Assistant General Counsel (202/452-3623), or Paul S. Pilecki, Attorney (202/452-3281), Legal Division, Board of Governors of the Federal Reserve System, Washington, D.C. 20551.