records of lifetime cumulative doses follows one of the provisions of the guidance to Federal agencies on occupational radiation protection. Efforts to obtain prior exposure histories are only required for workers who are required to be monitored under § 20.1502. Determination of prior doses received during planned special exposures or doses in excess of the annual limits are required only for workers who will be used in planned special exposures.

Comment: The recording of "fictitious" radiation doses should be avoided. The present and proposed rules state that, when information is not available regarding the dose received for a specific period, the licensee should assume that the dose received was at the dose limit. Several commenters thought that this was inappropriate. Some commenters mentioned that this practice might be nonconservative as it would tend to overestimate the dose used in any epidemiological studies of radiation effects, thereby resulting in an underestimate of the risk associated with a unit radiation dose.

Response and final rule: The final rule has been modified so that it does not require any assumed dose value to be recorded in case of incomplete prior dose histories. Only the lack of data must be recorded for periods where there is no information. However, for the current year, where there are missing data, an assumption is to be made for establishing administrative controls: the portion of the dose limit remaining for the current year is reduced by 1.25 rems for each calendar quarter for which information is missing. (The values for other limits, such as the shallow dose equivalent or eye dose equivalent should be reduced by one-quarter of their annual limit for each unreported quarter.) The licensee must note the absence of this information on the employee's record but should not enter the assumed dose value as part of the employee's permanent dose record. For example, an employee who had prior radiation working experience joins Company X on July 1st but does not have the prior radiation records. This employee's dose should be limited to 2.5 rems (5 rems-2(1.25)=2.5 rems) until such time as the records are obtained.

Comment: There should be a quarterly dose limit to cover workers whose records have not been received from a former employer. A 0.5-rem dose might be appropriate for this purpose.

Response: If data were missing for all four quarters (employment commenced late in the fourth calendar quarter), then the employee could not be exposed to radiation above the level for a member of the general public. However, this limit is 0.1 rem per year not 0.5 rem.

Proposed Section 20.1105 Records of Planned Special Exposures [Section 20.2105 in this Final Rule]

See discussion under proposed section 20.1204.

Proposed Section 20.1106 Records of Individual Monitoring Results [Section 20.2106 in this Final Rule]

Comment: NRC should not require reporting or recording of cumulative doses. A number of commenters noted that the ICRP system of dose limitation is based (as one of the principles) on controlling annual doses. Consequently, they questioned the need for recording cumulative doses.

Response: Although the commenters are correct that there is no longer a cumulative dose restriction in part 20 (such as the former 5(N–18) formula), the Federal Guidance on Occupational Exposure (see section II.D) contains a recommendation that cumulative dose records be maintained and provided to the worker.

Comment: The proposed rule does not require recording annual doses as listed in the 1987 Federal occupational guidance.

Response: "Annual dose" is specified in the guidance and is the same as the annual deep-dose equivalent for external doses. However, "annual dose" is not required to be recorded by the amendments to part 20 in this final form for internal doses. This is consistent with an exception noted in footnote 5 to the Federal guidance (**Federal Register** of January 27, 1977; 52 FR 2832):

> When these conditions on intake of radioactive materials have been satisfied [i.e., meeting the committed dose limits], it is not necessary to assess contributions from such intakes to annual doses in future years, and, as an operational procedure, such doses may be assigned to the year of intake for the purpose of assessing compliance.

Proposed Paragraph 20.1106(b)—See Discussion under Proposed § 20.1204

Comment: The recordkeeping requirement in the proposed § 20.1106(d)(2) would require that all records begin at the beginning of a calendar year. This would create an unnecessary hardship on dosimeter processors since they could not stagger the dosimeter changeover schedules to provide a more uniform workload distribution.

Response and final rule: The term "year" in § 20.1003 replaces the term "calendar year" in proposed § 20.3 and permits the licensee to define the year to begin anytime in January. A licensee may change the starting date, provided that the change is made at the beginning of the year and provided that no day is omitted and no day is included twice in consecutive years.

Comment: The requirement in proposed § 20.1106(e) for each licensee to keep a copy of the dosimeter processor's accreditation certificate creates an undue burden on commercial processors. Commercial dosimeter processors would have to print and distribute thousands of their certificates so that each user had a copy.

Response: The proposed rule contained a requirement for the licensee to maintain a copy of the dosimetry processing accreditation certificate issued to the processor providing dosimetry services to the licensee. This requirement, which was in the proposed dosimetry accreditation rule, was considered unnecessary and was dropped as a requirement in the final version of that rule. Consequently, it has been deleted from this final rule. Licensees who provide their own dosimeter processing services do have to maintain a copy of their NVLAP accreditation certificate for inspection.

Comment: The NRC should consider a "traveling dose history" that can move with the worker. This was suggested, particularly for transient workers and for workers employed concurrently by two employers. The master record will reside with the current employer and would have to be transmitted by the worker to a new employer.

Response: Because the NRC can only regulate its licensees and has no authority over individual workers, the recordkeeping and transmittal requirements for dose histories are placed on the licensee and not on the worker. The concept of a "passport" incorporating security and dosimetry data has been used successfully in Japan and elsewhere. The requirements for determination of prior exposures that are in § 20.2104 provide a similar record to a "moving history," but this would have to be updated by each new employer.

Concurrent employment with two (or more) employers requires special attention so that the combined doses from both employers would not exceed the dose limits. When two employers are aware of such concurrent employment, the simplest expedient to achieve this goal is for them to agree that the dose limit they will use for this employee in the individual programs is less than one-half of the NRC dose limits (the fraction of the dose limit allocated to each employer might also be determined on the basis of the relative

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