

§ 24.294 Destruction of Wine.

(a) *General.* Wine on bonded wine premises may be destroyed on or off wine premises by the proprietor without payment of tax. A proprietor who wants to destroy wine on or off wine premises must file with the appropriate ATF officer an application stating the kind, alcohol content, and approximate volume of wine to be destroyed, where the wine is to be destroyed, and the reason for destruction. Wine to be destroyed must be inspected, and the destruction supervised, by an appropriate ATF officer unless the appropriate ATF officer authorizes the proprietor to destroy the wine without inspection and supervision. The wine must not be destroyed until the proprietor has received authority from the appropriate ATF officer.

Par. 41. The third sentence of paragraph (a) introductory text, of § 24.300 is amended by removing the phrase "submitted to the regional director (compliance)".

Par. 42. § 24.300, paragraph (c) and the third and fifth sentences of paragraph (g)(2) are revised to read as follows:

§ 24.300 General.

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(c) *Prescribed forms.* All reports required by this part must be submitted on forms prescribed by § 24.20. Entries will be made as indicated by the headings of the columns and lines, and as required by the instructions for the form. Report forms are furnished free of cost.

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(g) *ATF F 5120.17, Report of bonded wine premises operations.* * * *

(2) * * * A proprietor who is commencing operations during a calendar year and expects to meet these criteria may use a letter notice to the appropriate ATF officer, and file an annual ATF F 5120.17 for the remaining portion of the calendar year. * * * If there is a jeopardy to the revenue, the appropriate ATF officer may at any time require any proprietor otherwise eligible for annual filing of a report of bonded wine premises operations to file such report monthly.

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Signed: December 9, 1998.

John W. Magaw,
Director.

Approved: February 9, 1999.

John P. Simpson,
Deputy Assistant Secretary (Regulatory, Tariff and Trade Enforcement).

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DEPARTMENT OF JUSTICE**28 CFR Part 79**

[A.G. Order No. 2213-99]

RIN 1105-AA49

Radiation Exposure Compensation Act: Evidentiary Requirements; Definitions; and Number of Times Claims May Be Filed

AGENCY: Civil Division, Department of Justice.

ACTION: Final rule.

SUMMARY: The Department of Justice ("the Department") amends its existing regulations implementing the Radiation Exposure Compensation Act to: allow claimants to submit affidavits or declarations in support of a claim to establish smoking and alcohol consumption histories where no other records exist; allow the use of pathology reports of tissue biopsies as additional means by which claimants can present evidence of a compensable non-malignant respiratory disease; amend the definitions of "smoker" and "non-smoker"; include *in situ* lung cancers under the definition of primary cancers of the lung; and allow claimants who have filed claims prior to the implementation of these regulations and have been denied compensation to file another three times.

DATES: Effective date: April 21, 1999. This final rule will apply to all claims pending with the Radiation Exposure Compensation Act Program ("RECA Program") as of this date.

FOR FURTHER INFORMATION CONTACT: Gerard W. Fischer (Assistant Director), (202) 616-4090, and Lori Beg (Attorney), (202) 616-4377, U.S. Department of Justice, Civil Division, P.O. Box 146, Ben Franklin Station, Washington, D.C. 20044-0146.

SUPPLEMENTARY INFORMATION:**Background**

On May 23, 1997, the Attorney General published a notice of proposed rulemaking in the **Federal Register**, 62 FR 28393 (1997), setting forth proposed amendments to the regulations implementing the Radiation Exposure Compensation Act, Pub. L. 101-426, 104 Stat. 920 (1990) (codified as amended at 42 U.S.C. 2210 note) ("RECA" or "Act"). Comments were received over a period of 30 days ending on July 22, 1997. In response to several requests from the public for additional time, the comment period was reopened on August 29, 1997, for an additional 30-day period ending on September 29, 1997. The Department of Justice received 31

letters, each containing one or more comments regarding the proposed amendments. Commenters included both interested individuals and organizations. Most of the comments were positive, applauding the proposed changes and encouraging their swift implementation.

The Department carefully reviewed all of the comments, several of which resulted in changes to the proposed rule. Specifically, the final rule will not introduce standards for the use of high resolution computed tomography ("HRCT") reports, which were included in § 79.36(a)(ii)(A)(2) of the proposed rule. The Department received many substantive comments on the proposed use of HRCT reports as a means by which claimants can present evidence of a compensable non-malignant respiratory disease. In order to respond to those comments, the Department engaged in extensive research and consultation. Presently, there is no consensus in the medical community for standardized criteria for the use of HRCT reports in the diagnosis of non-malignant respiratory diseases. Accordingly, as soon as the Department, in consultation with its designated medical and scientific experts, is able to identify recognized standards for the use of HRCT reports, the Department will implement appropriate regulations.

Furthermore, the final rule amends the definitions of "heavy smoker" and "smoker" to exclude, and the definition of "non-smoker" to include, claimants who stopped smoking at least fifteen years prior to the date of diagnosis of disease. These definitions apply to claimants diagnosed with a compensable non-malignant respiratory disease as well as those diagnosed with lung cancer, as originally proposed. The Department is convinced that the evidence supports this approach.

Discussion of Changes and Comments

Following are summaries and discussions of the comments, which have been grouped together according to their similarity. Minor or technical issues are not discussed.

In some cases, commenters suggested that the Department incorporate certain regulatory provisions that would modify statutory requirements relating to the criteria for compensation. Section 5 of the RECA authorizes claims only by individuals employed in uranium mines in particular states. Accordingly, the implementing regulations limit compensation to individuals employed in uranium mines in those states and exclude those individuals employed in uranium mines elsewhere as well as those individuals employed in uranium

milling or processing, involved in mining other types of ore, and simply residing in a community where uranium mining was conducted. See 28 CFR 79.30–32. In addition, section 5 of the RECA sets forth specified compensable diseases and ties compensation to the level of radiation exposure, age at incidence of disease onset, and smoker status. The implementing regulations reflect the statutory limitations. See 28 CFR 79.32(c)(1)–(2). Stated simply, the Department cannot modify a statute by regulation. Rather, the legislative process must react to these concerns.

One commenter suggested that the Department hold public meetings to discuss the proposed regulatory changes, which the Assistant Director for the Radiation Exposure Compensation Program, Gerard W. Fischer, and others from the Department have done. The Program held meetings in several locations in New Mexico and Utah, including the Navajo Reservation, in order to present the proposed regulatory changes and discuss their implementation with individuals in the affected communities.

Several commenters asked the Department to render an opinion on whether certain records or references in records would satisfy the eligibility criteria in a hypothetical or individual case. The Department, however, is unable to render any opinion without reviewing an actual claim and evaluating the documentation provided in support of that claim.

Subpart A—General

Section 79.2 General Definitions

Section 79.2(e) Contemporaneous Record. One commenter requested clarification of the term “contemporaneous records.” Existing regulations define the term to include those records that were created when the described events occurred. In some instances, the dates of records may not coincide precisely with the dates when actions took place. For example, a claimant’s employment summary contained in a mining company archive may be used to clarify periods of employment prior to the date of the summary. In such instances, we will determine whether the records were created within a sufficient time of the relevant period to be considered contemporaneous. The Department relies on contemporaneous records because of their inherent reliability and trustworthiness.

Section 79.4 Burden of proof, production of documents, presumptions, and affidavits

Section 79.4(a) Production of documents. Several commenters suggested that contemporaneous records do not exist to establish complete employment histories for underground uranium miners, particularly for those miners who worked in small mining operations. This issue was addressed in connection with the original regulations, and that discussion still applies. See 57 FR 12430 (1992). That is, we have seen no evidence to support the assertion that contemporaneous records do not exist. Our experience reveals that available social security records are accurate and comprehensive. Thus, where records from employers are not available from company archives, social security records will sufficiently document an individual’s employment history. In the very few cases where claimants worked for companies that failed to report earnings, claimants can provide federal or state income tax records. Moreover, numerous sources, such as the National Institute for Occupational Safety and Health (“NIOSH”), the University of New Mexico School of Medicine, the Colorado Bureau of Mines, and numerous mining companies have contemporaneous records to establish individual mining histories. In cases where claimants independently operated small mines and failed to earn a sufficient income to report to federal or state agencies, Atomic Energy Commission shipping records will reflect the name of the mine operators, which may often be used to establish exposure.

One commenter noted that various contemporaneous records, including mine operator records and old medical records from country doctors, have been stored in remote areas and that the Department should collect and maintain such records. The Department currently maintains extensive records from various mining resources, including the Public Health Service Study of Uranium Miners, NIOSH, the Atomic Energy Commission, the Colorado Bureau of Mines, and Utah Mine Inspection Reports. The Department also has access to records from St. Mary’s Hospital, the University of New Mexico School of Medicine, and the Colorado Tumor Registry, all of which maintain radon exposure information. The Department also has accessed records from various private entities. Although it cannot collect and store records from private companies, the Department will do all that it can to urge still-existing private

companies to make their records available to the public. The Department attempts to identify records held by various public and private organizations and makes such information known to claimants. Additionally, if it is known to the Department that specific records are likely to be destroyed, we attempt to locate organizations that may be interested in maintaining those records and making them available to claimants. However, the RECA Program was not designed, nor is it equipped, to gather and maintain large quantities of records.

Section 79.4(c) Affidavits. One commenter inquired as to the form an affidavit must take and the level of specificity required. Because the information contained in an affidavit will depend on the specific facts of each case, it is impossible to precisely define the amount of detail necessary to establish any element of compensation.

Other commenters suggested that affidavits should be accepted on any and all relevant issues, and one commenter added that affidavits should be accepted to establish eligibility criteria without records to support the assertions contained therein. The Department, however, has purposefully limited the use of affidavits. In the experience of the RECA Program to date, affidavits are unnecessary in most cases. Determinations of eligibility based on documentation increase the integrity of the process, limit transactional costs, and minimize the potential for fraud. Despite complaints to the contrary, we have found that there is an enormous body of reliable contemporaneous records that can be used to establish eligibility requirements. Contemporaneous records are inherently more reliable than affidavits.

Several commenters suggested that the Department should accept affidavits from individuals other than claimants, i.e., co-workers, friends, neighbors, and extended family members, to establish eligibility criteria for downwind presence or uranium mining employment. One commenter recommended that “non-claimant” affidavits should be allowed to establish all eligibility criteria. The Department, however, must limit the submission of affidavits to those individuals who are best situated to supply the information. Because of the risk that such affidavits may not provide information that is based on personal knowledge, the Department has placed reasonable restrictions on the submission of affidavits in an effort to ensure their reliability. Accordingly, affidavits may be submitted only by the claimant or the eligible surviving beneficiary.

The final rule provides that affidavits will be accepted for the following purposes: (1) to prove eligibility of family members as set forth in the regulations at § 79.51(e), (f), (g), (h), or (i); (2) to acknowledge other compensation received as set forth in § 79.55(c) or (d); (3) to prove smoking and/or drinking history and/or age at diagnosis as set forth in § 79.27(d) and § 79.37(d); (4) to prove the amount of coffee consumed as set forth in § 79.27(e); or (5) to establish mining information as set forth in § 79.33(b)(2).

One commenter proposed that affidavits be permitted to establish an individual's physical presence in a designated affected downwind area where former employers are no longer in existence or records have been destroyed, and where such employment is not documented in Social Security earnings records. The commenter urged that such declarations would be admissible in a court of law. Our experience has shown that a multitude of records are available to establish presence in downwind areas. The absence of records from one particular source will not necessarily preclude a claimant from establishing such presence. The RECA Program accepts records created by government entities, educational institutions, utility services, libraries, historical societies, religious organizations, businesses, associations, and medical institutions to establish the physical presence criteria under 28 CFR 79.13. Additionally, in response to related comments to the initial regulations, the Department added contemporaneous postcards and certain postal stamped envelopes to the expansive list of acceptable records. See 57 FR 12430 (1992). Affidavits submitted in lieu of contemporaneous records, on the other hand, do not contain the same level of trustworthiness and cannot be relied upon to prove physical presence, a basic criterion for compensation under the downwinder program. The RECA Program represents Congress's attempt to create an inexpensive, expeditious, easy-to-administer, and non-adversarial scheme to compensate qualifying claimants. Expanding the role of affidavits in the compensation process would necessarily require staffing increases, alter the nature of the Program, and frustrate the purposes that Congress sought to achieve.

Subpart B—Eligibility Criteria for Claims Relating to Childhood Leukemia

Section 79.12 Criteria for Eligibility

One commenter suggested that the downwinder provisions of the

regulations be amended to provide compensation for individuals who were "in utero" during the designated time periods and later developed leukemia. The Act as well as the current regulations are silent on the issue of whether a fetus constitutes an "individual" for purposes of eligibility. Accordingly, the Department will rely on judicial interpretation in addition to legislative intent in making its determination should it be faced with such a situation.

Subpart C—Eligibility Criteria for Claims Relating to Certain Specified Diseases

Section 79.22 Criteria for Eligibility

One commenter suggested that the downwinder provisions of the regulations be amended to provide compensation for individuals who were "in utero" during the designated time periods and later contracted any of the specified compensable diseases. The discussion of this comment at § 79.12 applies to this section of the regulations.

Subpart D—Uranium Miners

Section 79.31 Definitions

Section 79.31(e) Non-smoker. One commenter suggested that the Department revise the definition of non-smoker to include Native American Indians who smoked only for ceremonial purposes, even if they did so within 15 years of diagnosis of lung cancer. The Department evaluates each case independently in order to determine whether an individual has shown by a preponderance of the evidence that the eligibility criteria are established. In cases where an individual presents documentation referencing his or her prior smoking history, the Department will carefully evaluate such references on a case-by-case basis. In addition, most medical histories that describe smoking status reference the extent of smoking in relation to "pack" of cigarettes and "portions" used. Finally, the only type of smoking that is relevant under the regulations is cigarette smoking. Pipe smoking, or any other type of smoking, is not relevant to the RECA Program. The existing regulations specify that "smoking" "does not include the use of cigars or pipe tobacco, or any tobacco products that are used without being lighted." 28 CFR 79.21(d).

Several commenters proposed revising the definition of non-smoker to include former smokers who developed a compensable non-malignant respiratory disease. The Department's designated experts at NIOSH have advised that former smokers who

develop one of the compensable non-malignant respiratory diseases could be considered non-smokers for purposes of establishing the eligibility criteria. The NIOSH experts advise that this is especially true if the individual stopped smoking many years prior to the diagnosis of a restrictive non-malignant respiratory disease. Further, it is the opinion of the NIOSH experts that, based on available existing medical data, it is reasonable to treat an individual diagnosed with a compensable non-malignant respiratory disease as a non-smoker where the individual stopped smoking at least 15 years prior to diagnosis. We have decided to accept the recommendation of commenters to extend the applicability of the definition of "non-smoker" to individuals who stopped smoking at least 15 years prior to being diagnosed with a compensable non-malignant respiratory disease.

Section 79.31 (f) Smoker. The Department currently defines a smoker as an individual who smoked at least "one (1) pack year" of cigarette products. Several commenters suggested that the Department should increase the number of pack years required for an individual to be treated as a smoker. Existing regulations define a pack year as "an average of 20 cigarettes per day for one year." 28 CFR 79.21(d). A more detailed discussion of this definition was offered in connection with Department's current implementing regulations. See 57 FR 12431 (1992). However, in light of the suggested change, we reviewed the relevant literature and consulted with numerous experts from the National Cancer Institute. We were advised that most epidemiological studies define a "smoker" as one who smoked one cigarette per day for one year, far less than the one pack year of cigarette smoking presently used in the RECA Program and set forth in the regulations. Many of the experts we consulted consider our current working definition very lenient and recommend against liberalizing it further.

Section 79.31 (g) Onset or Incidence. One commentator noted that the "date of diagnosis" or "initial diagnosis" is not always clear from the medical records. With respect to uranium miners, the date of diagnosis is relevant only in relation to the issue of smoking status. A claimant's smoking status must be established by providing all medical records, as specified in 28 CFR 79.37(a), that were created six months prior to, and six months after, the initial date of diagnosis of a compensable disease. When the date of diagnosis is relevant, the RECA Program reviews the medical

records to establish the initial date of diagnosis of a compensable disease. If any records suggest an earlier date of diagnosis, we will request medical records from the time of the earlier date of diagnosis to resolve the question. In all cases, the RECA Program will assist claimants in obtaining these additional records.

Section 79.31(h) Primary Lung Cancer. One commenter requested that the Department provide a definition for "in situ" lung cancer. "In situ" lung cancer means that the cancerous cells have not left the tissue compartment of origin. It is a term of medical art that sometimes appears in claimants' medical records. In order to make it clear that such a term does not disqualify a claimant, the final rule includes it in the general definition of lung cancer.

Section 79.31(j) Fibrosis of the Lung or Pulmonary Fibrosis. One commenter requested that the Department provide more detailed descriptions of the types of medical evidence that would be considered a diagnosis of pulmonary fibrosis for deceased miners. Because of the many types of evidence that can satisfy this condition, providing a list of all conditions that describe the existence of pulmonary fibrosis is impossible. The regulations presently identify specific records and results required for living miners. However, cases involving deceased miners, where recent x-rays are not available, often require a thorough analysis by a medical expert who is qualified to evaluate a multitude of findings and determine by a preponderance of the evidence whether a claimant contracted a compensable disease. Since the evidence is different in each case, identifying every qualifying condition is not feasible.

Section 79.33 Proof of Employment in a uranium mine. Several commenters suggested that contemporaneous records do not exist to establish complete employment histories for underground uranium miners, particularly for those who worked in small mining operations. This issue was addressed in the original regulations, and the discussion offered in connection with those regulations still applies. That is, we have seen no evidence to support the assertion that contemporaneous records do not exist. Our experience reveals that social security records are accurate and comprehensive. In the very few cases where claimants worked for companies that failed to report earnings, claimants can provide federal or state income tax records. Moreover, numerous sources, such as NIOSH, the University of New Mexico School of Medicine, the

Colorado Bureau of Mines, and numerous mining companies, have contemporaneous records to establish individual mining histories. In cases where claimants independently operated small mines and failed to earn a sufficient income to report to federal or state agencies, Atomic Energy Commission shipping records will reflect the name of the operators, which may often be used to establish exposure.

Section 79.34 Proof of working level month exposure to radiation. One commenter noted concern that it is not possible to determine accurate radiation exposure levels in small mines because of the lack of readings taken from those mines. The commenter asserted that readings were taken only in the larger mines, where better ventilation systems were presumably employed. The NIOSH records used by the Department, however, do include exposure readings from many small mines. Moreover, the readings taken from the larger mines do not necessarily reflect lower exposure readings. In instances where exposure levels are unavailable for a particular mine, the regulations allow the RECA Program to use readings from other mines in the same geographical area, which typically include readings from mines of various sizes.

Another commenter expressed concern that radiation exposure measurements were taken from areas of the mine where the working levels were lower and, therefore, the readings do not accurately reflect exposure for purposes of calculating working level months. This issue was discussed in connection with the original regulations and that discussion still applies. See 57 FR 12432 (1992). Principally, Congress was aware that there were variations in the measurement of working levels in the mines but chose to set defined minimum levels based on the measurement data that existed. We must presume that those minimum levels set by Congress take into account the problems associated with the collection of the data. Moreover, there is simply no method of calculation that would result in total accuracy. Working level measurements varied widely within each mine in terms of time and location. We have found no evidence, however, that suggests that readings were taken only in areas where working levels were low. To the contrary, the numerous higher-level exposure readings included in the NIOSH database indicate that this was not the practice.

One commenter noted that there is limited exposure data from small mining operations because NIOSH did not conduct radiation measurements until the mid-1960s, although uranium

mining began twenty years earlier. The Department has access to Public Health Service records, which provide radiation exposure measurements that were recorded as early as 1950. To determine the exposure levels for 1947 through 1949, the Department applies the methodology outlined in the current regulations at 28 CFR 79.34(g)(2).

Section 79.36 Proof of non-malignant respiratory disease

Section 79.36(d)(1)(ii)(2) High resolution computed tomography scans and interpretation. There were several substantive comments regarding medical standards for the use of HRCT reports in diagnosing non-malignant respiratory diseases. Commenters included leading thoracic practitioners from major medical teaching facilities around the country. Their concerns specifically addressed such issues as scanner setting technique, use of non-conforming nomenclature, the lack of training in interpreting HRCT reports that is provided by most accredited radiology residency programs, and the absence of standardized testing protocols. While the Department sought out scientists in the medical community who had experience and expertise in the area to initially develop the proposed HRCT evaluation criteria, "recognized" standards by which to use HRCT reports to diagnose pulmonary fibrosis and the other compensable non-malignant respiratory diseases are still not available. The Department has determined, therefore, that it would be premature at this time to implement the use of HRCT reports as a diagnostic tool. As soon as recognized standards for evaluating HRCT reports develop, the Department will introduce appropriate regulations.

79.36(d)(1)(ii)(B)(1) Pulmonary function tests. One commenter stated that the pulmonary function test ("PFT") requirements are arbitrary and too stringent. The existing regulations defined pulmonary impairment as either a forced expiratory volume in one second ("FEV1") or forced vital capacity ("FVC") result less than or equal to 75% of the predicted value. In the amending regulations, the Department proposed to liberalize this definition in accordance with the recommendations of the American Thoracic Society. In the final rule, pulmonary impairment is defined as FEV1 or FVC less than or equal to 80% of the predicted value.

Another commenter suggested that the Department adopt ethnic-specific PFT standards for Native Americans. The Department has declined to adopt this recommendation for several reasons. First, there is insufficient

statistical confidence in the data obtained in the limited studies on this issue. To incorporate such a distinction at this time into a legal compensation scheme would be premature. Second, the Department will not adopt standards that might adversely discriminate against any one particular community. Third, acceptable PFT standards do not exist for each ethnic group within the subject population. Finally, the current regulations provide an alternative means by which to establish functional impairment, namely, arterial blood-gas ("ABG") studies. Any inadequacies that may exist in the PFT standards can be avoided entirely with an ABG study, which is unaffected by physiological differences among ethnic groups.

79.36(d)(1)(ii)(B)(2) Arterial blood-gas studies. Another commenter sought clarification on the interpretation of arterial blood gas ("ABG") studies when results fall between the values set forth in the tables in appendix B of the implementing regulations. When reported pCO₂ results fall between values listed in those tables, the Department will interpolate the corresponding qualifying pO₂ value.

One commenter indicated that the Department should create new tables reflecting lower pO₂ values as altitude increases and including separate pO₂ values for every 1,000 feet above sea level. The Department consulted with its designated experts at NIOSH and requested that they study the existing ABG tables, specifically focusing their inquiry on the effects of revising the ABG tables to reflect impairment values broken down by 1,000 feet increments. The NIOSH experts advised that specifying impairment levels (reflected by pO₂ and pCO₂ values) for every 1,000 feet change in elevation would actually disqualify many claimants from compensation. The ABG tables as they now exist, providing impairment values broken down into only two altitude categories, are quite generous. Narrowing the altitude intervals would decrease, rather than increase, a claimant's chance of satisfying the impairment requirements.

Section 79.36(e) Medical review. One commenter asserted that medical review of HRCT reports and "B" reader interpretations of chest x-rays by medical consultants is burdensome and not in accordance with the spirit of the Act. Section 6(b)(2) of the Act, however, specifically designates the NIOSH as a source for consultation when deemed necessary in making medical determinations. Given the highly technical nature of many of the eligibility criteria, expert opinions and guidance are necessary to resolve many

claims. As the Department administers a compensation program for eligible individuals, it is in the public interest to subject claims to appropriate scrutiny.

Section 79.37 Proof of smoking, nonsmoking, and age. Several commenters argued that affidavits should be accepted to establish smoking status when medical records are silent, incomplete, or reflect unclear or conflicting information regarding an individual's smoking history. In order to prove a history of non-smoking, the Department requires certain medical documentation created within the period six months before and six months after the date of diagnosis of a compensable disease. The final rule, however, seeks to liberalize the proof requirement by allowing claimants to submit affidavits regarding smoking history in the event that the required medical records no longer exist, or fail to contain information pertaining to the claimant's smoking history.

Subpart F—Procedures

Section 79.51 Filing of Claims

One commenter requested clarification of the number of times a claim may be filed, and how the revised regulations would affect the limitations on filing. A related comment suggested that we apply the revised regulations to pending claims rather than requiring claimants to re-file for consideration under those regulations. We concur with this suggestion. The final rule allows claimants who filed claims prior to the rule's implementation and were denied compensation to file another three times. Moreover, the revised regulations will apply to all claims pending as of April 21, 1999, the date the final rule becomes effective, regardless of when those claims were filed.

Certifications and Determinations

In accordance with 5 U.S.C. 605(b), the Attorney General certifies that this rule affects only individuals filing claims under the RECA. Therefore, this rule does not have a significant economic impact on a substantial number of small entities, as that term is defined in 5 U.S.C. 601(6). This rule, however, is a significant regulatory action under Executive Order 12866 and, accordingly, has been reviewed by the Office of Management and Budget. The rule is not a major rule as defined by 5 U.S.C. 804(2) nor is it a rule having federalism implications warranting assessment in accordance with section 6 of Executive Order 12612. In addition,

this rule is in full compliance with the Paperwork Reduction Act.

List of Subjects in 28 CFR Part 79

Administrative practice and procedure, Authority delegations (Government agencies), Cancer, Claims, Radiation Exposure Compensation Act, Radioactive materials, Reporting and recordkeeping requirements, Underground mining, Uranium.

Accordingly, part 79 of chapter I of title 28 of the Code of Federal Regulations is amended as follows:

PART 79—CLAIMS UNDER THE RADIATION EXPOSURE COMPENSATION ACT

1. The authority citation for part 79 continues to read as follows:

Authority: Sec. 6(b) and (j), Pub.L. 101-426, 104 Stat. 920 (42 U.S.C. § 2210 note).

2. Section 79.4(c) is amended by redesignating paragraphs (c)(3) and (c)(4) as paragraphs (c)(4) and (c)(5), adding a new paragraph (c)(3) and revising paragraphs (c)(1) and (c)(2) and new paragraphs (c)(4) and (c)(5) as follows:

§ 79.4 Burden of proof, production of documents, presumptions, and affidavits.

* * * * *

(c) * * *

(1) Eligibility of family members as set forth in § 79.51(e), (f), (g), (h), or (i);

(2) Other compensation received as set forth in § 79.55(c) or (d);

(3) Smoking and/or drinking history and/or age at diagnosis as set forth in § 79.27(d) and § 79.37(d);

(4) The amount of coffee consumed as set forth in § 79.27(e); or

(5) Mining information as set forth in § 79.33(b)(2).

3. Section 79.5 is amended by adding paragraph (c) to read as follows:

§ 79.5 Requirements for written medical documentation, contemporaneous records, and other records or documents.

* * * * *

(c) To establish eligibility the claimant or eligible surviving beneficiary may be required to provide, where appropriate, additional contemporaneous records to the extent they exist or an authorization to release additional contemporaneous records or a statement by the custodian(s) of the records certifying that the requested record(s) no longer exist. Nothing in the regulations in this section shall be construed to limit the Assistant Director's ability to require additional documentation.

4. In § 79.21, paragraph (d) is amended by adding one new sentence

after the second sentence to read as follows:

§ 79.21 Definitions.

* * * * *

(d) * * * The term excludes an individual who smoked more than 20 pack years, but who can establish in accordance with § 79.27 that he or she stopped smoking at least fifteen (15) years prior to the diagnosis of primary cancer of the esophagus, pharynx, or pancreas, and did not resume smoking at any time thereafter.

* * * * *

5. Section 79.27 is amended by revising the heading, re-designating paragraph (c) as new paragraph (e), adding new paragraphs (c) and (d), and revising paragraphs (a) and (b), to read as follows:

§ 79.27 Proof of no heavy smoking, no heavy drinking, no heavy coffee drinking and no indication of the presence of hepatitis B and cirrhosis.

(a)(1) If the claimant or eligible surviving beneficiary is claiming eligibility under this subpart for primary cancer of the esophagus, pharynx, pancreas, or liver, the claimant or eligible surviving beneficiary must submit, in addition to proof of the disease, all medical records listed below from any hospital, medical facility, or health care provider that were created within the period six (6) months before and six (6) months after the date of diagnosis of primary cancer of the esophagus, pharynx, pancreas, or liver:

- (i) All history and physical examination reports;
- (ii) All operative and consultation reports;
- (iii) All pathology reports; and
- (iv) All physician, hospital, and health care facility admission and discharge summaries.

(2) In the event that any of the records in paragraph (a)(1) of this section no longer exist, the claimant or eligible surviving beneficiary must submit a certified statement by the custodian(s) of those records to that effect.

(b) If the medical records listed in paragraph (a) of this section, or information possessed by the state cancer or tumor registries, reflects that the claimant was a heavy smoker or a heavy drinker or indicates the presence of hepatitis B and/or cirrhosis, the Radiation Exposure Compensation Unit will notify the claimant or eligible surviving beneficiary and afford that individual the opportunity to submit other written medical documentation or contemporaneous records in accordance with § 79.52(b) to establish that the claimant was not a heavy smoker or

heavy drinker or that there was no indication of hepatitis B and/or cirrhosis.

(c) The Program may also require that the claimant or eligible surviving beneficiary provide additional medical records or other contemporaneous records and/or an authorization to release such additional medical and contemporaneous records as may be needed to make a determination regarding the indication of the presence of hepatitis B and/or cirrhosis and the claimant's history of smoking and alcohol consumption.

(d) If the custodian(s) of the records listed in paragraph (a) of this section and the records requested in accordance with paragraph (c) of this section certifies that a claimant's records no longer exist, and if the state cancer or tumor registries do not contain information concerning the claimant's history of smoking or alcohol-consumption, the Assistant Director may require that the claimant or eligible surviving beneficiary submit an affidavit (or declaration) made under penalty of perjury detailing the histories or lack thereof and, if the affiant (or declarant) is the eligible surviving beneficiary, the basis for such knowledge. This affidavit (or declaration) will be considered by the Assistant Director in making a determination concerning the claimant's history of smoking and alcohol consumption.

(e) * * *

6. Section 79.31 is amended by revising paragraphs (e) and (f) and the second sentence of paragraph (h), to read as follows:

§ 79.31 Definitions.

* * * * *

(e) *Non-smoker* means an individual who never smoked tobacco cigarette products or who smoked less than the amount defined in paragraph (f) of this section and includes an individual who smoked at least one (1) pack year but whose acceptable documentation as set forth in § 79.37 establishes that he or she stopped smoking at least fifteen (15) years prior to the diagnosis of primary cancer of the lung, pulmonary fibrosis, fibrosis of the lung, cor pulmonale related to fibrosis of the lung, or moderate or severe silicosis or pneumoconiosis, and that he or she did not resume smoking at any time thereafter.

(f) *Smoker* means an individual who has smoked at least one (1) pack year of cigarette products, and who is not deemed a non-smoker by virtue of paragraph (e) of this section.

* * * * *

(h) * * * The term includes cancers *in situ*.

* * * * *

8. Section 79.36 is amended by revising the first sentence of paragraph (a), revising paragraph (d)(1)(ii), and adding new paragraph (e) to read as follows:

§ 79.36 Proof of non-malignant respiratory disease.

(a) Written medical documentation is required in all cases to prove that the claimant developed a non-malignant respiratory disease. * * *

* * * * *

(d) * * *

(1) * * *

(i) * * *

(ii) If the claimant is alive, (A) One of the following:

(1) *Chest x-rays and two "B" reader interpretations.* A chest x-ray administered in accordance with standard techniques on full size film at quality 1 or 2, and interpretative reports of the x-ray by two certified "B" readers classifying the existence of fibrosis of category 1/0 or higher according to the ILO 1980, or subsequent revisions; or

(2) *Pathology reports of tissue biopsies.* A pathology report of a tissue biopsy, but only if performed for medically justified reasons; and

(B) One or more of the following:

(1) *Pulmonary function tests.*

Pulmonary function tests consisting of three tracings recording the results of the forced expiratory volume in one second (FEV1) and the forced vital capacity (FVC) administered and reported in accordance with the Standardization of Spirometry—1987 Update by the American Thoracic Society, and reflecting values for FEV1 or FVC that are less than or equal to 80% of the predicted value for an individual of the claimant's age, sex, and height, as set forth in the Tables in Appendix A; or

(2) *Arterial blood-gas studies.* An arterial blood-gas study administered at rest in a sitting position, or an exercise arterial blood-gas test, reflecting values equal to or less than the values set forth in the Tables in Appendix B of this part.

* * * * *

(e) The Radiation Exposure Compensation Unit may seek qualified medical review of "B" reader interpretations or pathology reports of tissue biopsies submitted by a claimant or eligible surviving beneficiary or obtain additional "B" reader interpretations or pathology reports of tissue biopsies at any time to ensure that appropriate weight is given to this evidence and to guarantee uniformity

and reliability. This review may include obtaining additional chest x-ray interpretations and additional pathology reports of tissue biopsies.

9. Section 79.37 is amended by revising the section heading, revising paragraphs (a) and (b), and adding new paragraphs (c) and (d) to read as follows:

§ 79.37 Proof of non-smoker and diagnosis prior to age 45.

(a)(1) In order to prove a history of non-smoking for purposes of § 79.32(c)(1), and/or diagnosis of a compensable disease prior to age 45 for purposes of § 79.32(c)(2)(i), the claimant or eligible surviving beneficiary must submit all medical records listed in this paragraph (a)(1) from any hospital, medical facility, or health care provider that were created within the period six (6) months before and six (6) months after the date of diagnosis of primary lung cancer or a compensable nonmalignant respiratory disease:

- (i) All history and physical examination reports;
- (ii) All operative and consultation reports;
- (iii) All pathology reports;
- (iv) All physician, hospital, and health care facility admission and discharge summaries.

(2) In the event that any of the records in paragraph (a)(1) no longer exist, the claimant or eligible surviving beneficiary must submit a certified statement by the custodian(s) of those records to that effect.

(b) If, after a review of the records listed in paragraph (a) of this section, and/or the information possessed by the PHS, NIOSH, state cancer or tumor registries, state authorities, or the custodian of a federally supported

health-related study, the Assistant Director finds that the claimant was a smoker, and/or that the claimant was diagnosed with a compensable disease after age 45, the Unit will notify the claimant or eligible surviving beneficiary and afford that individual the opportunity to submit other written medical documentation in accordance with § 79.52(b) to establish that the claimant was a non-smoker and/or was diagnosed with a compensable disease prior to age 45.

(c) The Unit may also require that the claimant or eligible surviving beneficiary provide additional medical records or other contemporaneous records and/or an authorization to release such additional medical and contemporaneous records as may be needed to make a determination regarding the claimant's smoking history and/or age at diagnosis with a compensable disease.

(d) If the custodian(s) of the records listed in paragraph (a) of this section and the records requested in accordance with paragraph (c) of this section certifies that a claimant's records no longer exist, and information possessed by the PHS, NIOSH, state cancer or tumor registries, state authorities, or the custodian of a federally supported health-related study do not contain information pertaining to the claimant's smoking history, the Assistant Director may require that the claimant or eligible surviving beneficiary submit an affidavit (or declaration) made under penalty of perjury detailing the claimant's smoking history or lack thereof and, if the affiant (or declarant) is the eligible surviving beneficiary, the basis for such knowledge. This affidavit (or declaration) will be considered by the

Assistant Director in making a determination concerning the claimant's history of smoking.

10. In § 79.51, paragraph (j) is amended by revising paragraphs (j)(3) and (j)(4), adding paragraph (j)(5) and adding a sentence at the end of the concluding text to read as follows:

§ 79.51 Filing of claims.

* * * * *

(j) * * *

(3) Onsite participation in a nuclear test,

(4) Exposure to a defined minimum level of radiation in a uranium mine or mines during a designated time period, or

(5) The identity of the claimant and/or surviving beneficiary.

* * * Claims filed prior to April 21, 1999 will not be included in determining the number of claims filed.

11. In § 79.55, paragraphs (d)(1)(i) and (d)(1)(ii) are revised to read as follows:

§ 79.55 Procedures for payment of claims.

* * * * *

(d) * * *

(1) * * *

(i) Any disability payments or compensation benefits paid to the claimant and his/her dependents while the claimant is alive; and

(ii) Any Dependency and Indemnity Compensation payments made to survivors due to death related to the illness for which the claim under the Act is submitted.

* * * * *

12. Appendix A to Part 79 is revised to read as follows:

Appendix A to Part 79—Pulmonary Function Tables

TABLE 1.—MALES FVC
[80% of Predicted; Knudson 1983]

Ht.	Age										
	35	37	39	41	43	45	47	49	51	53	55
56.0	1.74	1.70	1.65	1.60	1.55	1.51	1.46	1.41	1.36	1.32	1.27
56.5	1.83	1.78	1.73	1.69	1.64	1.59	1.54	1.50	1.45	1.40	1.35
57.0	1.92	1.87	1.82	1.77	1.72	1.68	1.63	1.58	1.53	1.49	1.44
57.5	2.00	1.95	1.91	1.86	1.81	1.76	1.72	1.67	1.62	1.57	1.52
58.0	2.09	2.04	1.99	1.94	1.90	1.85	1.80	1.75	1.71	1.66	1.61
58.5	2.17	2.13	2.08	2.03	1.98	1.93	1.89	1.84	1.79	1.74	1.70
59.0	2.26	2.21	2.16	2.12	2.07	2.02	1.97	1.92	1.88	1.83	1.78
59.5	2.34	2.30	2.25	2.20	2.15	2.11	2.06	2.01	1.96	1.92	1.87
60.0	2.43	2.38	2.33	2.29	2.24	2.19	2.14	2.10	2.05	2.00	1.95
60.5	2.52	2.47	2.42	2.37	2.33	2.28	2.23	2.18	2.13	2.09	2.04
61.0	2.60	2.55	2.51	2.46	2.41	2.36	2.32	2.27	2.22	2.17	2.12
61.5	2.69	2.64	2.59	2.54	2.50	2.45	2.40	2.35	2.31	2.26	2.21
62.0	2.77	2.73	2.68	2.63	2.58	2.53	2.49	2.44	2.39	2.34	2.30
62.5	2.86	2.81	2.76	2.72	2.67	2.62	2.57	2.53	2.48	2.43	2.38
63.0	2.94	2.90	2.85	2.80	2.75	2.71	2.66	2.61	2.56	2.52	2.47
63.5	3.03	2.98	2.94	2.89	2.84	2.79	2.74	2.70	2.65	2.60	2.55
64.0	3.12	3.07	3.02	2.97	2.93	2.88	2.83	2.78	2.73	2.69	2.64
64.5	3.20	3.15	3.11	3.06	3.01	2.96	2.92	2.87	2.82	2.77	2.73

TABLE 1.—MALES FVC—Continued
[80% of Predicted; Knudson 1983]

Ht.	Age										
	35	37	39	41	43	45	47	49	51	53	55
65.0	3.29	3.24	3.19	3.14	3.10	3.05	3.00	2.95	2.91	2.86	2.81
65.5	3.37	3.33	3.28	3.23	3.18	3.14	3.09	3.04	2.99	2.94	2.90
66.0	3.46	3.41	3.36	3.32	3.27	3.22	3.17	3.13	3.08	3.03	2.98
66.5	3.54	3.50	3.45	3.40	3.35	3.31	3.26	3.21	3.16	3.12	3.07
67.0	3.63	3.58	3.54	3.49	3.44	3.39	3.34	3.30	3.25	3.20	3.15
67.5	3.72	3.67	3.62	3.57	3.53	3.48	3.43	3.38	3.34	3.29	3.24
68.0	3.80	3.75	3.71	3.66	3.61	3.56	3.52	3.47	3.42	3.37	3.33
68.5	3.89	3.84	3.79	3.74	3.70	3.65	3.60	3.55	3.51	3.46	3.41
69.0	3.97	3.93	3.88	3.83	3.78	3.74	3.69	3.64	3.59	3.54	3.50
69.5	4.06	4.01	3.96	3.92	3.87	3.82	3.77	3.73	3.68	3.63	3.58
70.0	4.15	4.10	4.05	4.00	3.95	3.91	3.86	3.81	3.76	3.72	3.67
70.5	4.23	4.18	4.14	4.09	4.04	3.99	3.94	3.90	3.85	3.80	3.75
71.0	4.32	4.27	4.22	4.17	4.13	4.08	4.03	3.98	3.94	3.89	3.84
71.5	4.40	4.35	4.31	4.26	4.21	4.16	4.12	4.07	4.02	3.97	3.93
72.0	4.49	4.44	4.39	4.35	4.30	4.25	4.20	4.15	4.11	4.06	4.01
72.5	4.57	4.53	4.48	4.43	4.38	4.34	4.29	4.24	4.19	4.14	4.10
73.0	4.66	4.61	4.56	4.52	4.47	4.42	4.37	4.33	4.28	4.23	4.18
73.5	4.75	4.70	4.65	4.60	4.55	4.51	4.46	4.41	4.36	4.32	4.27
74.0	4.83	4.78	4.74	4.69	4.64	4.59	4.55	4.50	4.45	4.40	4.35
74.5	4.92	4.87	4.82	4.77	4.73	4.68	4.63	4.58	4.54	4.49	4.44
75.0	5.00	4.96	4.91	4.86	4.81	4.76	4.72	4.67	4.62	4.57	4.53
75.5	5.09	5.04	4.99	4.95	4.90	4.85	4.80	4.75	4.71	4.66	4.61
76.0	5.17	5.13	5.08	5.03	4.98	4.94	4.89	4.84	4.79	4.75	4.70
76.5	5.26	5.21	5.16	5.12	5.07	5.02	4.97	4.93	4.88	4.83	4.78
77.0	5.35	5.30	5.25	5.20	5.16	5.11	5.06	5.01	4.96	4.92	4.87
77.5	5.43	5.38	5.34	5.29	5.24	5.19	5.15	5.10	5.05	5.00	4.95
78.0	5.52	5.47	5.42	5.37	5.33	5.28	5.23	5.18	5.14	5.09	5.04
78.5	5.60	5.56	5.51	5.46	5.41	5.36	5.32	5.27	5.22	5.17	5.13
79.0	5.69	5.64	5.59	5.55	5.50	5.45	5.40	5.35	5.31	5.26	5.21
79.5	5.77	5.73	5.68	5.63	5.58	5.54	5.49	5.44	5.39	5.35	5.30
80.0	5.86	5.81	5.76	5.72	5.67	5.62	5.57	5.53	5.48	5.43	5.38
80.5	5.95	5.90	5.85	5.80	5.76	5.71	5.66	5.61	5.56	5.52	5.47
81.0	6.03	5.98	5.94	5.89	5.84	5.79	5.75	5.70	5.65	5.60	5.55
81.5	6.12	6.07	6.02	5.97	5.93	5.88	5.83	5.78	5.74	5.69	5.64
82.0	6.20	6.16	6.11	6.06	6.01	5.96	5.92	5.87	5.82	5.77	5.73
82.5	6.29	6.24	6.19	6.15	6.10	6.05	6.00	5.96	5.91	5.86	5.81
83.0	6.37	6.33	6.28	6.23	6.18	6.14	6.09	6.04	5.99	5.95	5.90
83.5	6.46	6.41	6.37	6.32	6.27	6.22	6.17	6.13	6.08	6.03	5.98
84.0	6.55	6.50	6.45	6.40	6.36	6.31	6.26	6.21	6.16	6.12	6.07
84.5	6.63	6.58	6.54	6.49	6.44	6.39	6.35	6.30	6.25	6.20	6.16
85.0	6.72	6.67	6.62	6.57	6.53	6.48	6.43	6.38	6.34	6.29	6.24

TABLE 1A.—MALES FVC
[80% of Predicted; Knudson 1983]

Ht.	Age									
	57	59	61	63	65	67	69	71	73	75
56.0	1.22	1.17	1.12	1.08	1.03	0.98	0.93	0.89	0.84	0.79
56.5	1.31	1.26	1.21	1.16	1.11	1.07	1.02	0.97	0.92	0.88
57.0	1.39	1.34	1.30	1.25	1.20	1.15	1.11	1.06	1.01	0.96
57.5	1.48	1.43	1.38	1.33	1.29	1.24	1.19	1.14	1.10	1.05
58.0	1.56	1.52	1.47	1.42	1.37	1.32	1.28	1.23	1.18	1.13
58.5	1.65	1.60	1.55	1.51	1.46	1.41	1.36	1.31	1.27	1.22
59.0	1.73	1.69	1.64	1.59	1.54	1.50	1.45	1.40	1.35	1.31
59.5	1.82	1.77	1.72	1.68	1.63	1.58	1.53	1.49	1.44	1.39
60.0	1.91	1.86	1.81	1.76	1.72	1.67	1.62	1.57	1.52	1.48
60.5	1.99	1.94	1.90	1.85	1.80	1.75	1.71	1.66	1.61	1.56
61.0	2.08	2.03	1.98	1.93	1.89	1.84	1.79	1.74	1.70	1.65
61.5	2.16	2.12	2.07	2.02	1.97	1.92	1.88	1.83	1.78	1.73
62.0	2.25	2.20	2.15	2.11	2.06	2.01	1.96	1.91	1.87	1.82
62.5	2.33	2.29	2.24	2.19	2.14	2.10	2.05	2.00	1.95	1.91
63.0	2.42	2.37	2.32	2.28	2.23	2.18	2.13	2.09	2.04	1.99
63.5	2.51	2.46	2.41	2.36	2.32	2.27	2.22	2.17	2.12	2.08
64.0	2.59	2.54	2.50	2.45	2.40	2.35	2.31	2.26	2.21	2.16
64.5	2.68	2.63	2.58	2.53	2.49	2.44	2.39	2.34	2.30	2.25
65.0	2.76	2.72	2.67	2.62	2.57	2.52	2.48	2.43	2.38	2.33

TABLE 1A.—MALES FVC—Continued
[80% of Predicted; Knudson 1983]

Ht.	Age									
	57	59	61	63	65	67	69	71	73	75
65.5	2.85	2.80	2.75	2.71	2.66	2.61	2.56	2.52	2.47	2.42
66.0	2.93	2.89	2.84	2.79	2.74	2.70	2.65	2.60	2.55	2.51
66.5	3.02	2.97	2.93	2.88	2.83	2.78	2.73	2.69	2.64	2.59
67.0	3.11	3.06	3.01	2.96	2.92	2.87	2.82	2.77	2.72	2.68
67.5	3.19	3.14	3.10	3.05	3.00	2.95	2.91	2.86	2.81	2.76
68.0	3.28	3.23	3.18	3.13	3.09	3.04	2.99	2.94	2.90	2.85
68.5	3.36	3.32	3.27	3.22	3.17	3.13	3.08	3.03	2.98	2.93
69.0	3.45	3.40	3.35	3.31	3.26	3.21	3.16	3.12	3.07	3.02
69.5	3.53	3.49	3.44	3.39	3.34	3.30	3.25	3.20	3.15	3.11
70.0	3.62	3.57	3.53	3.48	3.43	3.38	3.33	3.29	3.24	3.19
70.5	3.71	3.66	3.61	3.56	3.52	3.47	3.42	3.37	3.33	3.28
71.0	3.79	3.74	3.70	3.65	3.60	3.55	3.51	3.46	3.41	3.36
71.5	3.88	3.83	3.78	3.73	3.69	3.64	3.59	3.54	3.50	3.45
72.0	3.96	3.92	3.87	3.82	3.77	3.73	3.68	3.63	3.58	3.53
72.5	4.05	4.00	3.95	3.91	3.86	3.81	3.76	3.72	3.67	3.62
73.0	4.14	4.09	4.04	3.99	3.94	3.90	3.85	3.80	3.75	3.71
73.5	4.22	4.17	4.13	4.08	4.03	3.98	3.93	3.89	3.84	3.79
74.0	4.31	4.26	4.21	4.16	4.12	4.07	4.02	3.97	3.93	3.88
74.5	4.39	4.34	4.30	4.25	4.20	4.15	4.11	4.06	4.01	3.96
75.0	4.48	4.43	4.38	4.34	4.29	4.24	4.19	4.14	4.10	4.05
75.5	4.56	4.52	4.47	4.42	4.37	4.33	4.28	4.23	4.18	4.13
76.0	4.65	4.60	4.55	4.51	4.46	4.41	4.36	4.32	4.27	4.22
76.5	4.74	4.69	4.64	4.59	4.54	4.50	4.45	4.40	4.35	4.31
77.0	4.82	4.77	4.73	4.68	4.63	4.58	4.54	4.49	4.44	4.39
77.5	4.91	4.86	4.81	4.76	4.72	4.67	4.62	4.57	4.53	4.48
78.0	4.99	4.95	4.90	4.85	4.80	4.75	4.71	4.66	4.61	4.56
78.5	5.08	5.03	4.98	4.94	4.89	4.84	4.79	4.74	4.70	4.65
79.0	5.16	5.12	5.07	5.02	4.97	4.93	4.88	4.83	4.78	4.74
79.5	5.25	5.20	5.15	5.11	5.06	5.01	4.96	4.92	4.87	4.82
80.0	5.34	5.29	5.24	5.19	5.15	5.10	5.05	5.00	4.95	4.91
80.5	5.42	5.37	5.33	5.28	5.23	5.18	5.14	5.09	5.04	4.99
81.0	5.51	5.46	5.41	5.36	5.32	5.27	5.22	5.17	5.13	5.08
81.5	5.59	5.55	5.50	5.45	5.40	5.35	5.31	5.26	5.21	5.16
82.0	5.68	5.63	5.58	5.54	5.49	5.44	5.39	5.34	5.30	5.25
82.5	5.76	5.72	5.67	5.62	5.57	5.53	5.48	5.43	5.38	5.34
83.0	5.85	5.80	5.75	5.71	5.66	5.61	5.56	5.52	5.47	5.42
83.5	5.94	5.89	5.84	5.79	5.75	5.70	5.65	5.60	5.55	5.51
84.0	6.02	5.97	5.93	5.88	5.83	5.78	5.74	5.69	5.64	5.59
84.5	6.11	6.06	6.01	5.96	5.92	5.87	5.82	5.77	5.73	5.68
85.0	6.19	6.15	6.10	6.05	6.00	5.95	5.91	5.86	5.81	5.76

TABLE 2.—MALES FEV1
[80% of Predicted; Knudson 1983]

Ht.	Age										
	35	37	39	41	43	45	47	49	51	53	55
56.0	1.54	1.49	1.44	1.40	1.35	1.30	1.26	1.21	1.16	1.12	1.07
56.5	1.61	1.56	1.51	1.47	1.42	1.37	1.33	1.28	1.23	1.18	1.14
57.0	1.67	1.63	1.58	1.53	1.49	1.44	1.39	1.35	1.30	1.25	1.21
57.5	1.74	1.69	1.65	1.60	1.55	1.51	1.46	1.41	1.37	1.32	1.27
58.0	1.81	1.76	1.71	1.67	1.62	1.57	1.53	1.48	1.43	1.39	1.34
58.5	1.88	1.83	1.78	1.74	1.69	1.64	1.60	1.55	1.50	1.46	1.41
59.0	1.94	1.90	1.85	1.80	1.76	1.71	1.66	1.62	1.57	1.52	1.48
59.5	2.01	1.96	1.92	1.87	1.82	1.78	1.73	1.68	1.64	1.59	1.54
60.0	2.08	2.03	1.98	1.94	1.89	1.84	1.80	1.75	1.70	1.66	1.61
60.5	2.15	2.10	2.05	2.01	1.96	1.91	1.87	1.82	1.77	1.73	1.68
61.0	2.21	2.17	2.12	2.07	2.03	1.98	1.93	1.89	1.84	1.79	1.75
61.5	2.28	2.23	2.19	2.14	2.09	2.05	2.00	1.95	1.91	1.86	1.81
62.0	2.35	2.30	2.26	2.21	2.16	2.11	2.07	2.02	1.97	1.93	1.88
62.5	2.42	2.37	2.32	2.28	2.23	2.18	2.14	2.09	2.04	2.00	1.95
63.0	2.48	2.44	2.39	2.34	2.30	2.25	2.20	2.16	2.11	2.06	2.02
63.5	2.55	2.50	2.46	2.41	2.36	2.32	2.27	2.22	2.18	2.13	2.08
64.0	2.62	2.57	2.53	2.48	2.43	2.39	2.34	2.29	2.25	2.20	2.15
64.5	2.69	2.64	2.59	2.55	2.50	2.45	2.41	2.36	2.31	2.27	2.22
65.0	2.75	2.71	2.66	2.61	2.57	2.52	2.47	2.43	2.38	2.33	2.29
65.5	2.82	2.77	2.73	2.68	2.63	2.59	2.54	2.49	2.45	2.40	2.35

TABLE 2.—MALES FEV1—Continued
[80% of Predicted; Knudson 1983]

Ht.	Age										
	35	37	39	41	43	45	47	49	51	53	55
66.0	2.89	2.84	2.80	2.75	2.70	2.66	2.61	2.56	2.52	2.47	2.42
66.5	2.96	2.91	2.86	2.82	2.77	2.72	2.68	2.63	2.58	2.54	2.49
67.0	3.02	2.98	2.93	2.88	2.84	2.79	2.74	2.70	2.65	2.60	2.56
67.5	3.09	3.05	3.00	2.95	2.90	2.86	2.81	2.76	2.72	2.67	2.62
68.0	3.16	3.11	3.07	3.02	2.97	2.93	2.88	2.83	2.79	2.74	2.69
68.5	3.23	3.18	3.13	3.09	3.04	2.99	2.95	2.90	2.85	2.81	2.76
69.0	3.29	3.25	3.20	3.15	3.11	3.06	3.01	2.97	2.92	2.87	2.83
69.5	3.36	3.32	3.27	3.22	3.18	3.13	3.08	3.03	2.99	2.94	2.89
70.0	3.43	3.38	3.34	3.29	3.24	3.20	3.15	3.10	3.06	3.01	2.96
70.5	3.50	3.45	3.40	3.36	3.31	3.26	3.22	3.17	3.12	3.08	3.03
71.0	3.56	3.52	3.47	3.42	3.38	3.33	3.28	3.24	3.19	3.14	3.10
71.5	3.63	3.59	3.54	3.49	3.45	3.40	3.35	3.31	3.26	3.21	3.17
72.0	3.70	3.65	3.61	3.56	3.51	3.47	3.42	3.37	3.33	3.28	3.23
72.5	3.77	3.72	3.67	3.63	3.58	3.53	3.49	3.44	3.39	3.35	3.30
73.0	3.83	3.79	3.74	3.69	3.65	3.60	3.55	3.51	3.46	3.41	3.37
73.5	3.90	3.86	3.81	3.76	3.72	3.67	3.62	3.58	3.53	3.48	3.44
74.0	3.97	3.92	3.88	3.83	3.78	3.74	3.69	3.64	3.60	3.55	3.50
74.5	4.04	3.99	3.94	3.90	3.85	3.80	3.76	3.71	3.66	3.62	3.57
75.0	4.11	4.06	4.01	3.97	3.92	3.87	3.82	3.78	3.73	3.68	3.64
75.5	4.17	4.13	4.08	4.03	3.99	3.94	3.89	3.85	3.80	3.75	3.71
76.0	4.24	4.19	4.15	4.10	4.05	4.01	3.96	3.91	3.87	3.82	3.77
76.5	4.31	4.26	4.21	4.17	4.12	4.07	4.03	3.98	3.93	3.89	3.84
77.0	4.38	4.33	4.28	4.24	4.19	4.14	4.10	4.05	4.00	3.96	3.91
77.5	4.44	4.40	4.35	4.30	4.26	4.21	4.16	4.12	4.07	4.02	3.98
78.0	4.51	4.46	4.42	4.37	4.32	4.28	4.23	4.18	4.14	4.09	4.04
78.5	4.58	4.53	4.48	4.44	4.39	4.34	4.30	4.25	4.20	4.16	4.11
79.0	4.65	4.60	4.55	4.51	4.46	4.41	4.37	4.32	4.27	4.23	4.18
79.5	4.71	4.67	4.62	4.57	4.53	4.48	4.43	4.39	4.34	4.29	4.25
80.0	4.78	4.73	4.69	4.64	4.59	4.55	4.50	4.45	4.41	4.36	4.31
80.5	4.85	4.80	4.76	4.71	4.66	4.61	4.57	4.52	4.47	4.43	4.38
81.0	4.92	4.87	4.82	4.78	4.73	4.68	4.64	4.59	4.54	4.50	4.45
81.5	4.98	4.94	4.89	4.84	4.80	4.75	4.70	4.66	4.61	4.56	4.52
82.0	5.05	5.00	4.96	4.91	4.86	4.82	4.77	4.72	4.68	4.63	4.58
82.5	5.12	5.07	5.03	4.98	4.93	4.89	4.84	4.79	4.74	4.70	4.65
83.0	5.19	5.14	5.09	5.05	5.00	4.95	4.91	4.86	4.81	4.77	4.72
83.5	5.25	5.21	5.16	5.11	5.07	5.02	4.97	4.93	4.88	4.83	4.79
84.0	5.32	5.27	5.23	5.18	5.13	5.09	5.04	4.99	4.95	4.90	4.85
84.5	5.39	5.34	5.30	5.25	5.20	5.16	5.11	5.06	5.02	4.97	4.92
85.0	5.46	5.41	5.36	5.32	5.27	5.22	5.18	5.13	5.08	5.04	4.99

TABLE 2A.—MALES FEV1
[80% of Predicted; Knudson 1983]

Ht.	Age									
	57	59	61	63	65	67	69	71	73	75
56.0	1.02	0.98	0.93	0.88	0.84	0.79	0.74	0.70	0.65	0.60
56.5	1.09	1.04	1.00	0.95	0.90	0.86	0.81	0.76	0.72	0.67
57.0	1.16	1.11	1.07	1.02	0.97	0.93	0.88	0.83	0.79	0.74
57.5	1.23	1.18	1.13	1.09	1.04	0.99	0.95	0.90	0.85	0.81
58.0	1.29	1.25	1.20	1.15	1.11	1.06	1.01	0.97	0.92	0.87
58.5	1.36	1.31	1.27	1.22	1.17	1.13	1.08	1.03	0.99	0.94
59.0	1.43	1.38	1.34	1.29	1.24	1.20	1.15	1.10	1.06	1.01
59.5	1.50	1.45	1.40	1.36	1.31	1.26	1.22	1.17	1.12	1.08
60.0	1.56	1.52	1.47	1.42	1.38	1.33	1.28	1.24	1.19	1.14
60.5	1.63	1.59	1.54	1.49	1.45	1.40	1.35	1.30	1.26	1.21
61.0	1.70	1.65	1.62	1.56	1.51	1.47	1.42	1.37	1.33	1.28
61.5	1.77	1.72	1.67	1.63	1.58	1.53	1.49	1.44	1.39	1.35
62.0	1.83	1.79	1.74	1.69	1.65	1.60	1.55	1.51	1.46	1.41
62.5	1.90	1.86	1.81	1.76	1.72	1.67	1.62	1.58	1.53	1.48
63.0	1.97	1.92	1.88	1.83	1.78	1.74	1.69	1.64	1.60	1.55
63.5	2.04	1.99	1.94	1.90	1.85	1.80	1.76	1.71	1.66	1.62
64.0	2.10	2.06	2.01	1.96	1.92	1.87	1.82	1.78	1.73	1.68
64.5	2.17	2.13	2.08	2.03	1.99	1.94	1.89	1.85	1.80	1.75
65.0	2.24	2.19	2.15	2.10	2.05	2.01	1.96	1.91	1.87	1.82
65.5	2.31	2.26	2.21	2.17	2.12	2.07	2.03	1.98	1.93	1.89
66.0	2.38	2.33	2.28	2.24	2.19	2.14	2.09	2.05	2.00	1.95

TABLE 2A.—MALES FEV1—Continued
[80% of Predicted; Knudson 1983]

Ht.	Age									
	57	59	61	63	65	67	69	71	73	75
66.5	2.44	2.40	2.35	2.30	2.26	2.21	2.16	2.12	2.07	2.02
67.0	2.51	2.46	2.42	2.37	2.32	2.28	2.23	2.18	2.14	2.09
67.5	2.58	2.53	2.48	2.44	2.39	2.34	2.30	2.25	2.20	2.16
68.0	2.65	2.60	2.55	2.51	2.46	2.41	2.37	2.32	2.27	2.22
68.5	2.71	2.67	2.62	2.57	2.53	2.48	2.43	2.39	2.34	2.29
69.0	2.78	2.73	2.69	2.64	2.59	2.55	2.50	2.45	2.41	2.36
69.5	2.85	2.80	2.75	2.71	2.66	2.61	2.57	2.52	2.47	2.43
70.0	2.92	2.87	2.82	2.78	2.73	2.68	2.64	2.59	2.54	2.50
70.5	2.98	2.94	2.89	2.84	2.80	2.75	2.70	2.66	2.61	2.56
71.0	3.05	3.00	2.96	2.91	2.86	2.82	2.77	2.72	2.68	2.63
71.5	3.12	3.07	3.02	2.98	2.93	2.88	2.84	2.79	2.74	2.70
72.0	3.19	3.14	3.09	3.05	3.00	2.95	2.91	2.86	2.81	2.77
72.5	3.25	3.21	3.16	3.11	3.07	3.02	2.97	2.93	2.88	2.83
73.0	3.32	3.27	3.23	3.18	3.13	3.09	3.04	2.99	2.95	2.90
73.5	3.39	3.34	3.30	3.25	3.20	3.16	3.11	3.06	3.01	2.97
74.0	3.46	3.41	3.36	3.32	3.27	3.22	3.18	3.13	3.08	3.04
74.5	3.52	3.48	3.43	3.38	3.34	3.29	3.24	3.20	3.15	3.10
75.0	3.59	3.54	3.50	3.45	3.40	3.36	3.31	3.26	3.22	3.17
75.5	3.66	3.61	3.57	3.52	3.47	3.43	3.38	3.33	3.29	3.24
76.0	3.73	3.68	3.63	3.59	3.54	3.49	3.45	3.40	3.35	3.31
76.5	3.79	3.75	3.70	3.65	3.61	3.56	3.51	3.47	3.42	3.37
77.0	3.86	3.81	3.77	3.72	3.67	3.63	3.58	3.53	3.49	3.44
77.5	3.93	3.88	3.84	3.79	3.74	3.70	3.65	3.60	3.56	3.51
78.0	4.00	3.95	3.90	3.86	3.81	3.76	3.72	3.67	3.62	3.58
78.5	4.06	4.02	3.97	3.92	3.88	3.83	3.78	3.74	3.69	3.64
79.0	4.13	4.09	4.04	3.99	3.94	3.90	3.85	3.80	3.76	3.71
79.5	4.20	4.15	4.11	4.06	4.01	3.97	3.92	3.87	3.83	3.78
80.0	4.27	4.22	4.17	4.13	4.08	4.03	3.99	3.94	3.89	3.85
80.5	4.33	4.29	4.24	4.19	4.15	4.10	4.05	4.01	3.96	3.91
81.0	4.40	4.36	4.31	4.26	4.22	4.17	4.12	4.08	4.03	3.98
81.5	4.47	4.42	4.38	4.33	4.28	4.24	4.19	4.14	4.10	4.05
82.0	4.54	4.49	4.44	4.40	4.35	4.30	4.26	4.21	4.16	4.12
82.5	4.60	4.56	4.51	4.46	4.42	4.37	4.32	4.28	4.23	4.18
83.0	4.67	4.63	4.58	4.53	4.49	4.44	4.39	4.35	4.30	4.25
83.5	4.74	4.69	4.65	4.60	4.55	4.51	4.46	4.41	4.37	4.32
84.0	4.81	4.76	4.71	4.67	4.62	4.57	4.53	4.48	4.43	4.39
84.5	4.88	4.83	4.78	4.73	4.69	4.64	4.59	4.55	4.50	4.45
85.0	4.94	4.90	4.85	4.80	4.76	4.71	4.66	4.62	4.57	4.52

TABLE 3.—Females FVC
[80% of Predicted; Knudson 1983]

Ht.	Age										
	35	37	39	41	43	45	47	49	51	53	55
52.0	1.66	1.64	1.61	1.58	1.55	1.53	1.50	1.47	1.45	1.42	1.39
52.5	1.71	1.68	1.65	1.63	1.60	1.57	1.55	1.52	1.49	1.46	1.44
53.0	1.75	1.73	1.70	1.67	1.64	1.62	1.59	1.56	1.54	1.51	1.48
53.5	1.80	1.77	1.74	1.72	1.69	1.66	1.64	1.61	1.58	1.55	1.53
54.0	1.84	1.82	1.79	1.76	1.73	1.71	1.68	1.65	1.63	1.60	1.57
54.5	1.89	1.86	1.83	1.81	1.78	1.75	1.73	1.70	1.67	1.64	1.62
55.0	1.93	1.91	1.88	1.85	1.83	1.80	1.77	1.74	1.72	1.69	1.66
55.5	1.98	1.95	1.92	1.90	1.87	1.84	1.82	1.79	1.76	1.73	1.71
56.0	2.02	2.00	1.97	1.94	1.92	1.89	1.86	1.83	1.81	1.78	1.75
56.5	2.07	2.04	2.01	1.99	1.96	1.93	1.91	1.88	1.85	1.83	1.80
57.0	2.11	2.09	2.06	2.03	2.01	1.98	1.95	1.92	1.90	1.87	1.84
57.5	2.16	2.13	2.10	2.08	2.05	2.02	2.00	1.97	1.94	1.92	1.89
58.0	2.20	2.18	2.15	2.12	2.10	2.07	2.04	2.01	1.99	1.96	1.93
58.5	2.25	2.22	2.18	2.16	2.14	2.11	2.09	2.06	2.03	2.01	1.98
59.0	2.29	2.27	2.24	2.21	2.19	2.16	2.13	2.10	2.08	2.05	2.02
59.5	2.34	2.31	2.29	2.26	2.23	2.20	2.18	2.15	2.12	2.10	2.07
60.0	2.38	2.36	2.33	2.30	2.28	2.25	2.22	2.20	2.17	2.14	2.11
60.5	2.43	2.40	2.38	2.35	2.32	2.29	2.27	2.24	2.21	2.19	2.16
61.0	2.47	2.45	2.42	2.39	2.37	2.34	2.31	2.29	2.26	2.23	2.20
61.5	2.52	2.49	2.47	2.44	2.41	2.38	2.36	2.33	2.30	2.28	2.25
62.0	2.56	2.54	2.51	2.48	2.46	2.43	2.40	2.38	2.35	2.32	2.29
62.5	2.61	2.58	2.56	2.53	2.50	2.47	2.45	2.42	2.39	2.37	2.34

TABLE 3.—Females FVC—Continued
[80% of Predicted; Knudson 1983]

Ht.	Age										
	35	37	39	41	43	45	47	49	51	53	55
63.0	2.65	2.63	2.60	2.57	2.55	2.52	2.49	2.47	2.44	2.41	2.38
63.5	2.70	2.67	2.65	2.62	2.59	2.56	2.54	2.51	2.48	2.46	2.43
64.0	2.75	2.72	2.69	2.66	2.64	2.61	2.58	2.56	2.53	2.50	2.47
64.5	2.79	2.76	2.74	2.71	2.68	2.66	2.63	2.60	2.57	2.55	2.52
65.0	2.84	2.81	2.78	2.75	2.73	2.70	2.67	2.65	2.62	2.59	2.56
65.5	2.88	2.85	2.83	2.80	2.77	2.75	2.72	2.69	2.66	2.64	2.61
66.0	2.93	2.90	2.87	2.84	2.82	2.79	2.76	2.74	2.71	2.68	2.66
66.5	2.97	2.94	2.92	2.89	2.86	2.84	2.81	2.78	2.75	2.73	2.70
67.0	3.02	2.99	2.96	2.93	2.91	2.88	2.85	2.83	2.80	2.77	2.75
67.5	3.06	3.03	3.01	2.98	2.95	2.93	2.90	2.87	2.84	2.82	2.79
68.0	3.11	3.08	3.05	3.02	3.00	2.97	2.94	2.92	2.89	2.86	2.84
68.5	3.15	3.12	3.10	3.07	3.04	3.02	2.99	2.96	2.93	2.91	2.88
69.0	3.20	3.17	3.14	3.12	3.09	3.06	3.03	3.01	2.98	2.95	2.93
69.5	3.24	3.21	3.19	3.16	3.13	3.11	3.08	3.05	3.03	3.00	2.97
70.0	3.29	3.26	3.23	3.21	3.18	3.15	3.12	3.10	3.07	3.04	3.02
70.5	3.33	3.30	3.28	3.25	3.22	3.20	3.17	3.14	3.12	3.09	3.06
71.0	3.38	3.35	3.32	3.30	3.27	3.24	3.21	3.19	3.16	3.13	3.11
71.5	3.42	3.39	3.37	3.34	3.31	3.29	3.26	3.23	3.21	3.18	3.15
72.0	3.47	3.44	3.41	3.39	3.36	3.33	3.30	3.28	3.25	3.22	3.20
72.5	3.51	3.49	3.46	3.43	3.40	3.38	3.35	3.32	3.30	3.27	3.24
73.0	3.56	3.53	3.50	3.48	3.45	3.42	3.39	3.37	3.34	3.31	3.29
73.5	3.60	3.58	3.55	3.52	3.49	3.47	3.44	3.41	3.39	3.36	3.33
74.0	3.65	3.62	3.59	3.57	3.54	3.51	3.49	3.46	3.43	3.40	3.38
74.5	3.69	3.67	3.64	3.61	3.58	3.56	3.53	3.50	3.48	3.45	3.42
75.0	3.74	3.71	3.68	3.66	3.63	3.60	3.58	3.55	3.52	3.49	3.47
75.5	3.78	3.76	3.73	3.70	3.67	3.65	3.62	3.59	3.57	3.54	3.51
76.0	3.83	3.80	3.77	3.75	3.72	3.69	3.67	3.64	3.61	3.58	3.56
76.5	3.87	3.85	3.82	3.79	3.76	3.74	3.71	3.68	3.66	3.63	3.60
77.0	3.92	3.89	3.86	3.84	3.81	3.78	3.76	3.73	3.70	3.67	3.65
77.5	3.96	3.94	3.91	3.88	3.85	3.83	3.80	3.77	3.75	3.72	3.69
78.0	4.01	3.98	3.95	3.93	3.90	3.87	3.85	3.82	3.79	3.76	3.74
78.5	4.05	4.03	4.00	3.97	3.95	3.92	3.89	3.86	3.84	3.81	3.78
79.0	4.10	4.07	4.04	4.02	3.99	3.96	3.94	3.91	3.88	3.86	3.83
79.5	4.14	4.12	4.09	4.06	4.04	4.01	3.98	3.95	3.93	3.90	3.87
80.0	4.19	4.16	4.13	4.11	4.08	4.05	4.03	4.00	3.97	3.95	3.92
80.5	4.23	4.21	4.18	4.15	4.13	4.10	4.07	4.04	4.02	3.99	3.96
81.0	4.28	4.25	4.22	4.20	4.17	4.14	4.12	4.09	4.06	4.04	4.01

TABLE 3A.—FEMALES FVC
[80% of Predicted; Knudson 1983]

Ht.	Age									
	57	59	61	63	65	67	69	71	73	75
52.0	1.37	1.34	1.31	1.28	1.26	1.23	1.20	1.47	1.43	1.38
52.5	1.41	1.38	1.36	1.33	1.30	1.27	1.25	1.51	1.46	1.41
53.0	1.46	1.43	1.40	1.37	1.35	1.32	1.29	1.54	1.49	1.44
53.5	1.50	1.47	1.45	1.42	1.39	1.37	1.34	1.57	1.52	1.48
54.0	1.55	1.52	1.49	1.46	1.44	1.41	1.38	1.60	1.55	1.51
54.5	1.59	1.56	1.54	1.51	1.48	1.46	1.43	1.63	1.59	1.54
55.0	1.64	1.61	1.58	1.55	1.53	1.50	1.47	1.67	1.62	1.57
55.5	1.68	1.65	1.63	1.60	1.57	1.55	1.52	1.70	1.65	1.60
56.0	1.73	1.70	1.67	1.64	1.62	1.59	1.56	1.73	1.68	1.63
56.5	1.77	1.74	1.72	1.69	1.66	1.64	1.61	1.76	1.71	1.67
57.0	1.82	1.79	1.76	1.74	1.71	1.68	1.65	1.79	1.75	1.70
57.5	1.86	1.83	1.81	1.78	1.75	1.73	1.70	1.82	1.78	1.73
58.0	1.91	1.88	1.85	1.83	1.80	1.77	1.74	1.86	1.81	1.76
58.5	1.95	1.92	1.90	1.87	1.84	1.82	1.79	1.89	1.84	1.79
59.0	2.00	1.97	1.94	1.92	1.89	1.86	1.83	1.92	1.87	1.83
59.5	2.04	2.01	1.99	1.96	1.93	1.91	1.88	1.95	1.90	1.86
60.0	2.09	2.06	2.03	2.01	1.98	1.95	1.92	1.98	1.94	1.89
60.5	2.13	2.10	2.08	2.05	2.02	2.00	1.97	2.02	1.97	1.92
61.0	2.18	2.15	2.12	2.10	2.07	2.04	2.01	2.05	2.00	1.95
61.5	2.22	2.20	2.17	2.14	2.11	2.09	2.06	2.08	2.03	1.98
62.0	2.27	2.24	2.21	2.19	2.16	2.13	2.11	2.11	2.06	2.02
62.5	2.31	2.29	2.26	2.23	2.20	2.18	2.15	2.14	2.10	2.05
63.0	2.36	2.33	2.30	2.28	2.25	2.22	2.20	2.17	2.13	2.08

TABLE 3A.—FEMALES FVC—Continued
[80% of Predicted; Knudson 1983]

Ht.	Age									
	57	59	61	63	65	67	69	71	73	75
63.5	2.40	2.38	2.35	2.32	2.29	2.27	2.24	2.21	2.16	2.11
64.0	2.45	2.42	2.39	2.37	2.34	2.31	2.29	2.24	2.19	2.14
64.5	2.49	2.47	2.44	2.41	2.38	2.36	2.33	2.27	2.22	2.18
65.0	2.54	2.51	2.48	2.46	2.43	2.40	2.38	2.30	2.25	2.21
65.5	2.58	2.56	2.53	2.50	2.47	2.45	2.42	2.33	2.29	2.24
66.0	2.63	2.60	2.57	2.55	2.52	2.49	2.47	2.37	2.32	2.27
66.5	2.67	2.65	2.62	2.59	2.57	2.54	2.51	2.40	2.35	2.30
67.0	2.72	2.69	2.66	2.64	2.61	2.58	2.56	2.43	2.38	2.33
67.5	2.76	2.74	2.71	2.68	2.66	2.63	2.60	2.46	2.41	2.37
68.0	2.81	2.78	2.75	2.73	2.70	2.67	2.65	2.49	2.45	2.40
68.5	2.85	2.83	2.80	2.77	2.75	2.72	2.69	2.52	2.48	2.43
69.0	2.90	2.87	2.84	2.82	2.79	2.76	2.74	2.56	2.51	2.46
69.5	2.94	2.92	2.89	2.86	2.84	2.81	2.78	2.59	2.54	2.49
70.0	2.99	2.96	2.93	2.91	2.88	2.85	2.83	2.62	2.57	2.52
70.5	3.03	3.01	2.98	2.95	2.93	2.90	2.87	2.65	2.60	2.56
71.0	3.08	3.05	3.03	3.00	2.97	2.94	2.92	2.68	2.64	2.59
71.5	3.12	3.10	3.07	3.04	3.02	2.99	2.96	2.72	2.67	2.62
72.0	3.17	3.14	3.12	3.09	3.06	3.03	3.01	2.75	2.70	2.65
72.5	3.21	3.19	3.16	3.13	3.11	3.08	3.05	2.78	2.73	2.68
73.0	3.26	3.23	3.21	3.18	3.15	3.12	3.10	2.81	2.76	2.72
73.5	3.30	3.28	3.25	3.22	3.20	3.17	3.14	2.84	2.79	2.75
74.0	3.35	3.32	3.30	3.27	3.24	3.21	3.19	2.87	2.83	2.78
74.5	3.40	3.37	3.34	3.31	3.29	3.26	3.23	2.91	2.86	2.81
75.0	3.44	3.41	3.39	3.36	3.33	3.30	3.28	2.94	2.89	2.84
75.5	3.49	3.46	3.43	3.40	3.38	3.35	3.32	2.97	2.92	2.87
76.0	3.53	3.50	3.48	3.45	3.42	3.40	3.37	3.00	2.95	2.91
76.5	3.58	3.55	3.52	3.49	3.47	3.44	3.41	3.03	2.99	2.94
77.0	3.62	3.59	3.57	3.54	3.51	3.49	3.46	3.06	3.02	2.97
77.5	3.67	3.64	3.61	3.58	3.56	3.53	3.50	3.10	3.05	3.00
78.0	3.71	3.68	3.66	3.63	3.60	3.58	3.55	3.13	3.08	3.03
78.5	3.76	3.73	3.70	3.67	3.65	3.62	3.59	3.16	3.11	3.07
79.0	3.80	3.77	3.75	3.72	3.69	3.67	3.64	3.19	3.14	3.10
79.5	3.85	3.82	3.79	3.77	3.74	3.71	3.68	3.22	3.18	3.13
80.0	3.89	3.86	3.84	3.81	3.78	3.76	3.73	3.26	3.21	3.16
80.5	3.94	3.91	3.88	3.86	3.83	3.80	3.77	3.29	3.24	3.19
81.0	3.98	3.95	3.93	3.90	3.87	3.85	3.82	3.32	3.27	3.22

TABLE 4.—FEMALES FEV1
[80% of Predicted; Knudson 1983]

Ht.	Age										
	35	37	39	41	43	45	47	49	51	53	55
52.0	1.52	1.49	1.46	1.43	1.40	1.37	1.34	1.31	1.28	1.25	1.22
52.5	1.55	1.52	1.49	1.46	1.43	1.40	1.37	1.34	1.31	1.28	1.25
53.0	1.59	1.56	1.53	1.50	1.47	1.43	1.40	1.37	1.34	1.31	1.28
53.5	1.62	1.59	1.56	1.53	1.50	1.47	1.44	1.41	1.38	1.35	1.32
54.0	1.65	1.62	1.59	1.56	1.53	1.50	1.47	1.44	1.41	1.38	1.35
54.5	1.69	1.66	1.63	1.60	1.57	1.54	1.51	1.48	1.44	1.41	1.38
55.0	1.72	1.69	1.66	1.63	1.60	1.57	1.54	1.51	1.48	1.45	1.42
55.5	1.76	1.72	1.69	1.66	1.63	1.60	1.57	1.54	1.51	1.48	1.45
56.0	1.79	1.76	1.73	1.70	1.67	1.64	1.61	1.58	1.55	1.52	1.49
56.5	1.82	1.79	1.76	1.73	1.70	1.67	1.64	1.61	1.58	1.55	1.52
57.0	1.86	1.83	1.80	1.77	1.73	1.70	1.67	1.64	1.61	1.58	1.55
57.5	1.89	1.86	1.83	1.80	1.77	1.74	1.71	1.68	1.65	1.62	1.59
58.0	1.92	1.89	1.86	1.83	1.80	1.77	1.74	1.71	1.68	1.65	1.62
58.5	1.96	1.93	1.90	1.87	1.84	1.81	1.78	1.74	1.71	1.68	1.65
59.0	1.99	1.96	1.93	1.90	1.87	1.84	1.81	1.78	1.75	1.72	1.69
59.5	2.03	1.99	1.96	1.93	1.90	1.87	1.84	1.81	1.78	1.75	1.72
60.0	2.06	2.03	2.00	1.97	1.94	1.91	1.88	1.85	1.82	1.79	1.75
60.5	2.09	2.06	2.03	2.00	1.97	1.94	1.91	1.88	1.85	1.82	1.79
61.0	2.13	2.10	2.07	2.04	2.00	1.97	1.94	1.91	1.88	1.85	1.82
61.5	2.16	2.13	2.10	2.07	2.04	2.01	1.98	1.95	1.92	1.89	1.86
62.0	2.19	2.16	2.13	2.10	2.07	2.04	2.01	1.98	1.95	1.92	1.89
62.5	2.23	2.20	2.17	2.14	2.11	2.08	2.05	2.01	1.98	1.95	1.92
63.0	2.26	2.23	2.20	2.17	2.14	2.11	2.08	2.05	2.02	1.99	1.96
63.5	2.30	2.26	2.23	2.20	2.17	2.14	2.11	2.08	2.05	2.02	1.99

TABLE 4.—FEMALES FEV1—Continued
[80% of Predicted; Knudson 1983]

Ht.	Age										
	35	37	39	41	43	45	47	49	51	53	55
64.0	2.33	2.30	2.27	2.24	2.21	2.18	2.15	2.12	2.09	2.06	2.02
64.5	2.36	2.33	2.30	2.27	2.24	2.21	2.18	2.15	2.12	2.09	2.06
65.0	2.40	2.37	2.34	2.31	2.27	2.24	2.21	2.18	2.15	2.12	2.09
65.5	2.43	2.40	2.37	2.34	2.31	2.28	2.25	2.22	2.19	2.16	2.13
66.0	2.46	2.43	2.40	2.37	2.34	2.31	2.28	2.25	2.22	2.19	2.16
66.5	2.50	2.47	2.44	2.41	2.38	2.35	2.32	2.28	2.25	2.22	2.19
67.0	2.53	2.50	2.47	2.44	2.41	2.38	2.35	2.32	2.29	2.26	2.23
67.5	2.56	2.53	2.50	2.47	2.44	2.41	2.38	2.35	2.32	2.29	2.26
68.0	2.60	2.57	2.54	2.51	2.48	2.45	2.42	2.39	2.36	2.33	2.29
68.5	2.63	2.60	2.57	2.54	2.51	2.48	2.45	2.42	2.39	2.36	2.33
69.0	2.67	2.64	2.61	2.57	2.54	2.51	2.48	2.45	2.42	2.39	2.36
69.5	2.70	2.67	2.64	2.61	2.58	2.55	2.52	2.49	2.46	2.43	2.40
70.0	2.73	2.70	2.67	2.64	2.61	2.58	2.55	2.52	2.49	2.46	2.43
70.5	2.77	2.74	2.71	2.68	2.65	2.62	2.58	2.55	2.52	2.49	2.46
71.0	2.80	2.77	2.74	2.71	2.68	2.65	2.62	2.59	2.56	2.53	2.50
71.5	2.83	2.80	2.77	2.74	2.71	2.68	2.65	2.62	2.59	2.56	2.53
72.0	2.87	2.84	2.81	2.78	2.75	2.72	2.69	2.66	2.63	2.59	2.56
72.5	2.90	2.87	2.84	2.81	2.78	2.75	2.72	2.69	2.66	2.63	2.60
73.0	2.94	2.91	2.88	2.84	2.81	2.78	2.75	2.72	2.69	2.66	2.63
73.5	2.97	2.94	2.91	2.88	2.85	2.82	2.79	2.76	2.73	2.70	2.67
74.0	3.00	2.97	2.94	2.91	2.88	2.85	2.82	2.79	2.76	2.73	2.70
74.5	3.04	3.01	2.98	2.95	2.92	2.89	2.85	2.82	2.79	2.76	2.73
75.0	3.07	3.04	3.01	2.98	2.95	2.92	2.89	2.86	2.83	2.80	2.77
75.5	3.10	3.07	3.04	3.01	2.98	2.95	2.92	2.89	2.86	2.83	2.80
76.0	3.14	3.11	3.08	3.05	3.02	2.99	2.96	2.93	2.90	2.86	2.83
76.5	3.17	3.14	3.11	3.08	3.05	3.02	2.99	2.96	2.93	2.90	2.87
77.0	3.21	3.18	3.15	3.11	3.08	3.05	3.02	2.99	2.96	2.93	2.90
77.5	3.24	3.21	3.18	3.15	3.12	3.09	3.06	3.03	3.00	2.97	2.94
78.0	3.27	3.24	3.21	3.18	3.15	3.12	3.09	3.06	3.03	3.00	2.97
78.5	3.31	3.28	3.25	3.22	3.19	3.15	3.12	3.09	3.06	3.03	3.00
79.0	3.34	3.31	3.28	3.25	3.22	3.19	3.16	3.13	3.10	3.07	3.04
79.5	3.37	3.34	3.31	3.28	3.25	3.22	3.19	3.16	3.13	3.10	3.07
80.0	3.41	3.38	3.35	3.32	3.29	3.26	3.23	3.20	3.16	3.13	3.10
80.5	3.44	3.41	3.38	3.35	3.32	3.29	3.26	3.23	3.20	3.17	3.14
81.0	3.48	3.45	3.41	3.38	3.35	3.32	3.29	3.26	3.23	3.20	3.17

TABLE 4A.—FEMALES FEV1
[80% of Predicted; Knudson 1983]

Ht.	Age									
	57	59	61	63	65	67	69	71	73	75
52.0	1.18	1.15	1.12	1.09	1.06	1.03	1.00	1.38	1.32	1.25
52.5	1.22	1.19	1.16	1.13	1.10	1.07	1.04	1.39	1.33	1.27
53.0	1.25	1.22	1.19	1.16	1.13	1.10	1.07	1.41	1.34	1.28
53.5	1.29	1.26	1.23	1.19	1.16	1.13	1.10	1.42	1.36	1.30
54.0	1.32	1.29	1.26	1.23	1.20	1.17	1.14	1.44	1.37	1.31
54.5	1.35	1.32	1.29	1.26	1.23	1.20	1.17	1.45	1.39	1.32
55.0	1.39	1.36	1.33	1.30	1.27	1.24	1.20	1.47	1.40	1.34
55.5	1.42	1.39	1.36	1.33	1.30	1.27	1.24	1.48	1.42	1.35
56.0	1.45	1.42	1.39	1.36	1.33	1.30	1.27	1.50	1.43	1.37
56.5	1.49	1.46	1.43	1.40	1.37	1.34	1.31	1.51	1.45	1.38
57.0	1.52	1.49	1.46	1.43	1.40	1.37	1.34	1.52	1.46	1.40
57.5	1.56	1.53	1.50	1.46	1.43	1.40	1.37	1.54	1.48	1.41
58.0	1.59	1.56	1.53	1.50	1.47	1.44	1.41	1.55	1.49	1.43
58.5	1.62	1.59	1.56	1.53	1.50	1.47	1.44	1.57	1.50	1.44
59.0	1.66	1.63	1.60	1.57	1.54	1.51	1.47	1.58	1.52	1.46
59.5	1.69	1.66	1.63	1.60	1.57	1.54	1.51	1.60	1.53	1.47
60.0	1.72	1.69	1.66	1.63	1.60	1.57	1.54	1.61	1.55	1.48
60.5	1.76	1.73	1.70	1.67	1.64	1.61	1.58	1.63	1.56	1.50
61.0	1.79	1.76	1.73	1.70	1.67	1.64	1.61	1.64	1.58	1.51
61.5	1.83	1.80	1.76	1.73	1.70	1.67	1.64	1.66	1.59	1.53
62.0	1.86	1.83	1.80	1.77	1.74	1.71	1.68	1.67	1.61	1.54
62.5	1.89	1.86	1.83	1.80	1.77	1.74	1.71	1.68	1.62	1.56
63.0	1.93	1.90	1.87	1.84	1.81	1.77	1.74	1.70	1.64	1.57
63.5	1.96	1.93	1.90	1.87	1.84	1.81	1.78	1.71	1.65	1.59
64.0	1.99	1.96	1.93	1.90	1.87	1.84	1.81	1.73	1.66	1.60

TABLE 4A.—FEMALES FEV1—Continued
[80% of Predicted; Knudson 1983]

Ht.	Age									
	57	59	61	63	65	67	69	71	73	75
64.5	2.03	2.00	1.97	1.94	1.91	1.88	1.85	1.74	1.68	1.62
65.0	2.06	2.03	2.00	1.97	1.94	1.91	1.88	1.76	1.69	1.63
65.5	2.10	2.07	2.03	2.00	1.97	1.94	1.91	1.77	1.71	1.64
66.0	2.13	2.10	2.07	2.04	2.01	1.98	1.95	1.79	1.72	1.66
66.5	2.16	2.13	2.10	2.07	2.04	2.01	1.98	1.80	1.74	1.67
67.0	2.20	2.17	2.14	2.11	2.08	2.04	2.01	1.82	1.75	1.69
67.5	2.23	2.20	2.17	2.14	2.11	2.08	2.05	1.83	1.77	1.70
68.0	2.26	2.23	2.20	2.17	2.14	2.11	2.08	1.84	1.78	1.72
68.5	2.30	2.27	2.24	2.21	2.18	2.15	2.12	1.86	1.80	1.73
69.0	2.33	2.30	2.27	2.24	2.21	2.18	2.15	1.87	1.81	1.75
69.5	2.37	2.34	2.30	2.27	2.24	2.21	2.18	1.89	1.82	1.76
70.0	2.40	2.37	2.34	2.31	2.28	2.25	2.22	1.90	1.84	1.78
70.5	2.43	2.40	2.37	2.34	2.31	2.28	2.25	1.92	1.85	1.79
71.0	2.47	2.44	2.41	2.38	2.35	2.31	2.28	1.93	1.87	1.80
71.5	2.50	2.47	2.44	2.41	2.38	2.35	2.32	1.95	1.88	1.82
72.0	2.53	2.50	2.47	2.44	2.41	2.38	2.35	1.96	1.90	1.83
72.5	2.57	2.54	2.51	2.48	2.45	2.42	2.39	1.97	1.91	1.85
73.0	2.60	2.57	2.54	2.51	2.48	2.45	2.42	1.99	1.93	1.86
73.5	2.64	2.60	2.57	2.54	2.51	2.48	2.45	2.00	1.94	1.88
74.0	2.67	2.64	2.61	2.58	2.55	2.52	2.49	2.02	1.95	1.89
74.5	2.70	2.67	2.64	2.61	2.58	2.55	2.52	2.03	1.97	1.91
75.0	2.74	2.71	2.68	2.65	2.61	2.58	2.55	2.05	1.98	1.92
75.5	2.77	2.74	2.71	2.68	2.65	2.62	2.59	2.06	2.00	1.93
76.0	2.80	2.77	2.74	2.71	2.68	2.65	2.62	2.08	2.01	1.95
76.5	2.84	2.81	2.78	2.75	2.72	2.69	2.66	2.09	2.03	1.96
77.0	2.87	2.84	2.81	2.78	2.75	2.72	2.69	2.11	2.04	1.98
77.5	2.91	2.87	2.84	2.81	2.78	2.75	2.72	2.12	2.06	1.99
78.0	2.94	2.91	2.88	2.85	2.82	2.79	2.76	2.13	2.07	2.01
78.5	2.97	2.94	2.91	2.88	2.85	2.82	2.79	2.15	2.09	2.02
79.0	3.01	2.98	2.95	2.92	2.88	2.85	2.82	2.16	2.10	2.04
79.5	3.04	3.01	2.98	2.95	2.92	2.89	2.86	2.18	2.11	2.05
80.0	3.07	3.04	3.01	2.98	2.95	2.92	2.89	2.19	2.13	2.07
80.5	3.11	3.08	3.05	3.02	2.99	2.96	2.93	2.21	2.14	2.08
81.0	3.14	3.11	3.08	3.05	3.02	2.99	2.96	2.22	2.16	2.09

Dated: March 11, 1999.

Janet Reno,

Attorney General.

[FR Doc. 99-6524 Filed 3-19-99; 8:45 am]

BILLING CODE 4410-12-P

DEPARTMENT OF LABOR

Occupational Safety and Health Administration

29 CFR Part 1910

Occupational Safety and Health Standards

CFR Correction

In Title 29 of the Code of Federal Regulations, parts 1910.1000 to End, revised as of July 1, 1998, § 1910.1052 is corrected by removing the second paragraph (g) appearing on pages 436 and 437.

[FR Doc. 99-55510 Filed 3-19-99; 8:45 am]

BILLING CODE 1505-01-D

GENERAL SERVICES ADMINISTRATION

41 CFR Part 101-49

[FPMR Amdt. H-202]

RIN 3090-AG97

Change in Consumer Price Index Minimal Value

AGENCY: Office of Governmentwide Policy, GSA.

ACTION: Final rule.

SUMMARY: Pub. L. 95-105 requires that at 3-year intervals following January 1, 1981, minimal value be redefined by the Administrator of General Services, after consultation with the Secretary of State, to reflect changes in the Consumer Price Index for the immediately preceding 3-year period. The required consultation has been completed and the minimal value has been increased to mean \$260 or less as of January 1, 1999.

EFFECTIVE DATE: This final rule is effective January 1, 1999.

FOR FURTHER INFORMATION CONTACT: Ms. Martha Caswell, Director, Personal Property Management Policy Division (202-501-3846).

SUPPLEMENTARY INFORMATION:

A. Executive Order 12866

The General Services Administration (GSA) has determined that this is not a significant rule for the purposes of Executive Order 12866 of September 30, 1993.

B. Regulatory Flexibility Act

This rule is not required to be published in the **Federal Register** for notice and comment. Therefore, the Regulatory Flexibility Act does not apply.

C. Paperwork Reduction Act

The Paperwork Reduction Act does not apply because the rule does not impose recordkeeping or information collection requirements, or the collection of information from offerors, contractors, or members of the public which require the approval of OMB under 44 U.S.C. 3501-3520.