Nuclear Regulatory Commission

part, as it deems appropriate or necessary to protect health or to minimize danger to life or property.

Subpart O—Enforcement

§ 20.2401 Violations.

(a) The Commission may obtain an injunction or other court order to prevent a violation of the provisions of—

(1) The Atomic Energy Act of 1954, as amended;

(2) Title II of the Energy Reorganization Act of 1974, as amended; or

(3) A regulation or order issued pursuant to those Acts.

(b) The Commission may obtain a court order for the payment of a civil penalty imposed under section 234 of the Atomic Energy Act:

(1) For violations of—

(i) Sections 53, 57, 62, 63, 81, 82, 101, 103, 104, 107 or 109 of the Atomic Energy Act of 1954, as amended;

(ii) Section 206 of the Energy Reorganization Act;

(iii) Any rule, regulation, or order issued pursuant to those Acts.

(2) For any violation for which a license may be revoked under Section 186 of the Atomic Energy Act of 1954, as amended.


§ 20.2402 Criminal penalties.

(a) Section 223 of the Atomic Energy Act of 1954, as amended, provides for criminal sanctions for willful violation of, attempted violation of, or conspiracy to violate any regulation issued under sections 161b, 161i, or 161o of the Act. For purposes of section 223, all the regulations in §§ 20.1001 through 20.2402 are issued under one or more of sections 161b, 161i, or 161o, except for the sections listed in paragraph (b) of this section.


APPENDIX A TO PART 20—ASSIGNED PROTECTION FACTORS FOR RESPIRATORS

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</table>

I. Air Purifying Respirators [Particulate only]:

1. Air-line respirator:
   - Facepiece, half .......... Pressure Demand .......... 50
   - Facepiece, full .......... Pressure Demand .......... 100
   - Facepiece, full .......... Continuous Flow .......... 1000

2. Self-contained breathing apparatus (SCBA):
   - Facepiece, full .......... Continuous Flow .......... 1000
   - Facepiece, loose-fitting .......... Continuous Flow .......... 25

II. Atmosphere supplying respirators (particulate, gases and vapors):

1. Air-purifying respirators:
   - Facepiece, half .......... Demand .................. 50
   - Facepiece, full .......... Demand .................. 100
   - Facepiece, full .......... Continuous Flow .......... 1000
   - Facepiece, half .......... Continuous Flow .......... 1000
   - Facepiece, full .......... Continuous Flow .......... 25

III. Combination Respirators:

Any combination of air-purifying and atmosphere-supplying respirators.

- These assigned protection factors apply only in a respirator protection program that meets the requirements of this Part. They are applicable only to airborne radiological hazards and may not be appropriate to circumstances when chemical or other respiratory hazards exist instead of, or in addition to, radioactive hazards. Selection and use of respirators for such circumstances must also comply with Department of Labor regulations.

Radiological contaminants for which the concentration values in Table 1, Column 3 of Appendix B to Part 20 are based on internal dose due to inhalation may, in addition, present external exposure hazards at higher concentrations. Under these circumstances, limitations on occupancy may have to be governed by external dose limits.
Air purifying respirators with an APF <100 must be equipped with particulate filters that are at least 95 percent efficient. Air purifying respirators with APF = 100 must be equipped with particulate filters that are at least 99 percent efficient. Air purifying respirators with APFs >100 must be equipped with particulate filters that are at least 99.97 percent efficient.

The licensee may apply to the Commission for the use of an APF greater than 1 for sorbent cartridges as protection against airborne radioactive gases and vapors (e.g., radioiodine).

Licenees may permit individuals to use this type of respirator who have not been medically screened or fit tested on the device provided that no credit be taken for their use in estimating intake or dose. It is also recognized that it is difficult to perform an effective positive or negative pressure pre-use user seal check on this type of device. All other respiratory protection program requirements listed in §20.1703 apply. An assigned protection factor has not been assigned for these devices. However, an APF equal to 10 may be used if the licensee can demonstrate a fit factor of at least 100 by use of a validated or evaluated, qualitative or quantitative fit test.

The licensee should implement institutional controls to assure that these devices are not used in areas immediately dangerous to life or health (IDLH).

This type of respirator may be used as an emergency device in unknown concentrations for protection against inhalation hazards. External radiation hazards and other limitations to permitted exposure such as skin absorption shall be taken into account in these circumstances. This device may not be used by any individual who experiences perceptible outward signs of being exposed.

The assigned protection factors for gases and vapors are not applicable to radioactive contaminants that present an abnormal dose equivalent to an organ or tissue by a weighting factor, wT, which is the proportion of the risk of stochastic effects resulting from irradiation of the organ or tissue, T, to the total risk of stochastic effects when the whole body is irradiated uniformly. The values of wT are listed under the definition of weighting factor in §20.1003. The non-stochastic ALIs were derived to avoid non-stochastic effects, such as prompt damage to tissue or reduction in organ function.

Note that the columns in table 1, of this appendix captioned "Oral Ingestion ALI," "Inhalation ALI," and "DAC" are applicable to occupational exposure to radioactive material.

The ALIs in this appendix are the annual intakes of a given radionuclide by Reference Man which would result in either (1) a committed effective dose equivalent of 5 rems (stochastic ALI) or (2) a committed dose equivalent of 50 rems to an organ or tissue (non-stochastic ALI). The stochastic ALIs were derived to result in a risk, due to irradiation of organs and tissues, comparable to the risk associated with deep dose equivalent to the whole body of 5 rems. The derivation includes multiplying the committed dose equivalent to an organ or tissue by a weighting factor, wT. This weighting factor is the proportion of the risk of stochastic effects resulting from irradiation of the organ or tissue, T, to the total risk of stochastic effects when the whole body is irradiated uniformly. The values of wT are listed under the definition of weighting factor in §20.1003. The non-stochastic ALIs were derived to avoid non-stochastic ALIs.