§ 20.1205 Demonstrate that the limit in § 20.1201(a)(1)(ii) is met.
[56 FR 23396, May 21, 1991, as amended at 60 FR 20185, Apr. 25, 1995]

§ 20.1205 [Reserved]

§ 20.1206 Planned special exposures.
A licensee may authorize an adult worker to receive doses in addition to and accounted for separately from the doses received under the limits specified in § 20.1201 provided that each of the following conditions is satisfied—
(a) The licensee authorizes a planned special exposure only in an exceptional situation when alternatives that might avoid the dose estimated to result from the planned special exposure are unavailable or impractical.
(b) The licensee (and employer if the employer is not the licensee) specifically authorizes the planned special exposure, in writing, before the exposure occurs.
(c) Before a planned special exposure, the licensee ensures that the individuals involved are—
(1) Informed of the purpose of the planned operation;
(2) Informed of the estimated doses and associated potential risks and specific radiation levels or other conditions that might be involved in performing the task; and
(3) Instructed in the measures to be taken to keep the dose ALARA considering other risks that may be present.
(d) Prior to permitting an individual to participate in a planned special exposure, the licensee ascertains prior doses as required by § 20.2104(b) during the lifetime of the individual for each individual involved.
(e) Subject to § 20.1201(b), the licensee does not authorize a planned special exposure that would cause an individual to receive a dose from all planned special exposures and all doses in excess of the limits to exceed—
(1) The numerical values of any of the dose limits in § 20.1201(a) in any year; and
(2) Five times the annual dose limits in § 20.1201(a) during the individual’s lifetime.
(f) The licensee maintains records of the conduct of a planned special exposure in accordance with § 20.2105 and submits a written report in accordance with § 20.2204.
(g) The licensee records the best estimate of the dose resulting from the planned special exposure in the individual’s record and informs the individual, in writing, of the dose within 30 days from the date of the planned special exposure. The dose from planned special exposures is not to be considered in controlling future occupational dose of the individual under § 20.1201(a) but is to be included in evaluations required by § 20.1206 (d) and (e).

§ 20.1207 Occupational dose limits for minors.
The annual occupational dose limits for minors are 10 percent of the annual dose limits specified for adult workers in § 20.1201.

§ 20.1208 Dose equivalent to an embryo/fetus.
(a) The licensee shall ensure that the dose equivalent to the embryo/fetus during the entire pregnancy, due to the occupational exposure of a declared pregnant woman, does not exceed 0.5 rem (5 mSv). (For recordkeeping requirements, see § 20.2106.)
(b) The licensee shall make efforts to avoid substantial variation above a uniform monthly exposure rate to a declared pregnant woman so as to satisfy the limit in paragraph (a) of this section.
(c) The dose equivalent to the embryo/fetus is the sum of—
(1) The deep-dose equivalent to the declared pregnant woman; and
(2) The dose equivalent to the embryo/fetus resulting from radionuclides in the embryo/fetus and radionuclides in the declared pregnant woman.
(d) If the dose equivalent to the embryo/fetus is found to have exceeded 0.5 rem (5 mSv), or is within 0.05 rem (0.5 mSv) of this dose, by the time the woman declares the pregnancy to the licensee, the licensee shall be deemed to be in compliance with paragraph (a) of this section if the additional dose equivalent to the embryo/fetus does
not exceed 0.05 rem (0.5 mSv) during
the remainder of the pregnancy.
[56 FR 23396, May 21, 1991, as amended at 63
FR 39482, July 23, 1998]

Subpart D—Radiation Dose Limits
for Individual Members of the
Public

SOURCE: 56 FR 23398, May 21, 1991, unless
otherwise noted.

§ 20.1301 Dose limits for individual
members of the public.

(a) Each licensee shall conduct oper-
ations so that—

(1) The total effective dose equiva-
lent to individual members of the pub-
lic from the licensed operation does
not exceed 0.1 rem (1 mSv) in a year,
exclusive of the dose contributions
from background radiation, from any
medical administration the individual
has received, from exposure to individ-
uals administered radioactive material
and released under §35.75, from vol-
untary participation in medical re-
search programs, and from the licens-
ee’s disposal of radioactive material
into sanitary sewerage in accordance
with §20.2003, and

(2) The dose in any unrestricted area
from external sources, exclusive of the
dose contributions from patients ad-
ministered radioactive material and re-
leased in accordance with §35.75, does
not exceed 0.002 rem (0.02 millisievert)
in any one hour.

(b) If the licensee permits members
of the public to have access to con-
trolled areas, the limits for members of
the public continue to apply to those
individuals.

(c) Notwithstanding paragraph (a)(1)
of this section, a licensee may permit
visitors to an individual who cannot be
released, under §35.75, to receive a rad-
iation dose greater than 0.1 rem (1 mSv)
if—

(1) The radiation dose received does
not exceed 0.5 rem (5 mSv); and

(2) The authorized user, as defined in
10 CFR Part 35, has determined before
the visit that it is appropriate.

(d) A licensee or license applicant
may apply for prior NRC authorization
to operate up to an annual dose limit
for an individual member of the public
of 0.5 rem (5 mSv). The licensee or li-
cense applicant shall include the fol-
lowing information in this application:

(1) Demonstration of the need for and
the expected duration of operations in
excess of the limit in paragraph (a) of
this section;

(2) The licensee’s program to assess
and control dose within the 0.5 rem (5
mSv) annual limit; and

(3) The procedures to be followed to
maintain the dose as low as is reason-
ably achievable.

(e) In addition to the requirements of
this part, a licensee subject to the pro-
visions of EPA’s generally applicable
environmental radiation standards in
40 CFR part 190 shall comply with
those standards.

(f) The Commission may impose addi-
tional restrictions on radiation levels
in unrestricted areas and on the total
quantity of radionuclides that a li-
censee may release in effluents in order
to restrict the collective dose.
[56 FR 23398, May 21, 1991, as amended at 60
FR 48625, Sept. 20, 1995; 62 FR 4133, Jan. 29,
1997; 67 FR 20370, Apr. 24, 2002; 67 FR 62872,
Oct. 9, 2002]

§ 20.1302 Compliance with dose limits
for individual members of the pub-
lic.

(a) The licensee shall make or cause
to be made, as appropriate, surveys of
radiation levels in unrestricted and
controlled areas and radioactive mate-
rials in effluents released to unre-
stricted and controlled areas to dem-
onstrate compliance with the dose lim-
its for individual members of the pub-
lic in §20.1301.

(b) A licensee shall show compliance
with the annual dose limit in §20.1301
by—

(1) Demonstrating by measurement
or calculation that the total effective
dose equivalent to the individual likely
to receive the highest dose from the li-
censed operation does not exceed the
annual dose limit; or

(2) Demonstrating that—

(i) The annual average concentra-
tions of radioactive material released
in gaseous and liquid effluents at the
boundary of the unrestricted area do
not exceed the values specified in table
2 of appendix B to part 20; and