

No. 91-138  
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FOR IMMEDIATE RELEASE  
(Tuesday, October 29, 1991)

NRC ANNOUNCES AVERAGE RADIATION DOSE TO WORKERS REMAINS AT  
RELATIVELY STEADY LEVEL

The average radiation dose to workers at U.S. nuclear power plants remained relatively steady for 1990, showing a very slight increase over 1989 dose levels, the Nuclear Regulatory Commission said today.

A report on "LWR Occupational Dose Data for 1990," dated October 8, 1991, shows that the average collective radiation dose per reactor for 1990 was 339 person-rems, whereas the average for 1989 was 338 person-rems. This represents a very slight increase of 0.3%. The "collective dose" is the sum of the individual radiation doses received by all employees at a particular facility.

All the operating commercial nuclear power plants in the United States are light water reactors, and these are of two types: boiling water reactors (BWRs) and pressurized water reactors (PWRs). For BWRs the 1990 average collective dose was 433 person-rems, which is slightly lower than the 1989 value of 435 person-rems (a less than 1% decrease). For PWRs the average dose per reactor for 1990 was 291 person-rems, which is a less than 1% increase from the 1989 value of 289 person-rems.

The average exposure to an individual nuclear power plant worker was 0.34 rem (340 millirems) for 1990, compared to 0.33 for 1989.

The 1989 and 1990 average doses per reactor represent a continuation of a declining trend that began in 1984, when the average collective dose per reactor was 708 person-rems, a significant drop from the 1983 figure of 753 person-rems. During 1989 and 1990 the average has dropped to pre-1972 levels.

Even though the total number of nuclear power plants has increased each year, the total (not averaged) collective dose per year for all light water reactors has in 1989 and 1990 dropped to pre-1979 total collective dose levels.

Doses received during plant outages accounted for more than 83% of the annual collective dose for the plants with the highest doses in 1990. The NRC noted that it appears that the activities that contributed most frequently to these doses at the higher collective dose plants were steam generator-related work, refueling operations, installation and removal of scaffolding and shielding, valve maintenance and hanger modifications. Therefore, the report states that reducing the frequency and duration of plant outages (by detailed outage planning, cooperation between work groups and scheduling of jobs to minimize critical path time) can lead to a lowering of a plant's annual collective dose.

Copies of the report are available for inspection and copying in the NRC Public Document Room, 2120 L Street, NW, Washington, D.C. 20555.

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Attachment