

N143. Factors Influencing Collective Exposure Trends

In the early 1980s, post TMI-2 modifications, steam generator maintenance, and stress corrosion cracking repairs contributed to high radiation exposures. The rapid decrease in exposures from 1984 onward can be attributed to improved ALARA awareness, increased productivity in the radiation zone, and decreasing requirements for special maintenance work. Radiation field reduction also contributed to the drop in exposures, most notably through the increasingly widespread decontamination techniques, but many of the radiation field control techniques implemented in that period take several years to show their full impact. This article contains a figure depicting the components contributing to exposure savings in the late 1980s, indicating also the contributions from various EPRI products. The decreasing trend has slowed recently, probably because the main gains from productivity improvements have been achieved already. The decline in capacity factor losses from corrosion problem seem to have also leveled out. In fact, some productions show an increase in steam generator replacements and BWR core internals work in future years that will increase exposure. Therefore, we conclude that the burden for maintaining the rate of exposure reduction will depend more heavily on radiation field control measures than before. Another figure in this article depicts the main factors that will have to contribute to the exposure required to achieve the 1995 goals.

Taken From: "The Challenges of the 1995 Radiation Exposure Goals," Howard Ocken and Chris Wood, Radiation Control News, December 1991, No. 12. For further information, call Howard Ocken, (415) 855-2055 or Chris Wood (415) 855-2379. EPRI, 3412 Hillview Avenue, Palo Alto, CA 94303.