

21
May 22, 2001 (2:29PM)

OPA

DRAFT

(Source: Commission Paper)

NRC PROPOSES AMENDING SKIN DOSE LIMIT FOR WORKERS AT NUCLEAR FACILITIES

The Nuclear Regulatory Commission is proposing to amend its standards for protection against radiation. The proposed changes would revise the method for determining the amount of radiation to the skin that workers receive when ~~they are exposed to radioactive material~~ *conducting licensed activities*.

The proposed rule, which would revise Part 20 of the Commission's regulations, is *recent* *congressionally-chartered* based on recommendations from the National Council on Radiation Protection and Measurements, and responds to the need to establish *more risk-informed* limits for dose from radioactive particles, sometimes known as "hot particles," and doses to small areas of the skin. *This approach is also consistent with regulations of the Department of Energy.*

Under the proposal, the dose to the skin would be averaged over the most highly exposed 10 square centimeters instead of being averaged over one square centimeter. This change ~~would permit higher doses to small areas of skin than presently allowed by NRC~~

(NCRP Report No. 130 and Statement No. 9)

~~regulations~~, and is based on scientific studies that demonstrate risks from doses to small areas of the skin are less than risks to larger areas from the same dose.

insignificant health implications

Current rules require frequent monitoring of workers to detect hot particles and small area exposures that have ~~small associated risk~~. These conservative efforts to prevent small, skin doses, which were formulated from research studies performed by Brookhaven National Laboratories, the Electric Power Research Institute and other similar organizations, result in higher whole-body doses with ~~much~~ higher risk than the avoided skin doses.

The health effects from small-area ~~contaminations~~^{skin} doses, such as reddening of the skin, that might occur from a hot particle exposure are considered by the ~~National Council on Radiation Protection and Measurements~~ to be very small as compared to the increased doses from monitoring and work inefficiencies. To avoid exceeding the current dose limit, protective clothing and cumbersome gloves are used that result in workers being subjected to non-radiological hazards, such as heat stress and other injury consequences. Workers are also hampered by the use of protective equipment and clothing requiring them to spend more time completing a job in radiation areas. Additionally, small-area overexposures can result in licensee citations and the possibility that a worker might not be permitted to work in a radiation area for the balance of the year.

The rulemaking is designed to establish a uniform, risk-based skin dose limit for all sources of shallow radiation exposures, including hot particles and small area skin ~~also~~ contaminations. The rule would increase the limit for small area exposures, allowing more frequent skin contamination, but it would lessen physical stress and reduce whole-body doses

reducing the frequency of
to workers by ~~eliminating~~ monitoring for hot particles. The net result is a substantial increase in
worker safety and a cost-effective reduction in unnecessary regulatory burden, *with little or no*
impact on worker safety

Interested persons are invited to submit comments within 75 days after publication of a Federal Register notice on this subject, expected shortly. Comments may be submitted to the Secretary, U.S. Nuclear Regulatory Commission, Washington, D.C. 20555-0001, ATTN: Rulemakings and Adjudications Staff. They can be delivered to 11555 Rockville Pike, Rockville, Maryland, between 7:30 a.m. and 4:15 p.m. on Federal workdays. Comments may also be submitted via the NRC's interactive rulemaking web site at <http://ruleforum.llnl.gov>.

The proposal is located at

###