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NRR PROPOSED RULE

REVISION OF THE SKIN DOSE LIMIT - 10CFR PART 20

CURRENT REGULATORY FRAMEWORK

- **Part 20's 50 Rem Average Over 1 cm² Skin Dose Limit - Not Appropriate For DRP And Small Area Contamination - Intended To Prevent Deterministic Injury To Larger Areas of Skin.**
- **Information Notice 90-48 - Enforcement Discretion Would Be Exercised if DRP Dose Exceeds 50 Rems. - Report And Mitigation If Needed - NOV if Beta Emission Exceeds 75 μ Ci-hr (300-500 Rads).**
- **Licenseses Monitor Workers Frequently During Work Shift to Avoid 50 Rem Reporting Requirement.**
- **Industry Estimates 1-2 Person rem (Whole Body Dose) Per Outage Incurred for DRP Monitoring.**

RISK CONSEQUENCE

- **NCRP Report No. 130, “Biological Effects And Exposure Limits for “Hot Particles.” (1999)**
 - **Recommends 50 Rads Averaged Over 10 Square Centimeters**
- **NCRP Report Preface States**
 - **Below 500 Rads Few Deterministic Effects Expected**
 - **If Observed, Effects Are Transient, Easily Treated**
 - **Extraordinarily Small Stochastic Risk**
 - **Exceeding Guidelines Only Indicative Of Need For Improvement In Radiation Protection**
 - **Exceeding 500 Rads DRP Dose Is Not Comparable to Exceeding Whole Body Dose Limit**

UNIFIED SKIN DOSE LIMIT

- **Staff Proposed Using NCRP Recommended DRP Dose Limit For All Skin Doses**
- **NRCP Published Statement No. 9, "Extension Of The Skin Exposure Limit For Hot Particles To Other Sources of Skin Irradiation," March 2001.**
- **Staff Proposed Rule Retains 50 Rem(0.5 Sv) Limit On Shallow Dose Equivalent To The Skin And Requires Averaging Measured Or Calculated Skin Dose Over Most Highly Exposed 10 Cm².**

Proposed Rule Provides Risk-Based Skin Dose Limit For All Sources Of Shallow-Dose Equivalent That:

- **Establishes A Single Limit For Skin Dose From All External Sources Of SDE**
- **Limit Increased For Small Area Exposures. Limit Decreases As Area Increases.**
- **Permits Recording Skin Doses From DRPs And Small Area Contamination That More Appropriately Reflect The Risks From Those Doses.**
- **May Permit More Frequent Occurrence of Deterministic Effects For Small Area Doses.**
- **Continues To Prevent Large Numbers of High DRP Doses**
- **Reduces Unnecessary Regulatory Burden For Reporting Doses That Have Small Health Detriment**
- **Permits Reduced Monitoring For DRPs And Thus Reduced Whole-Body Doses To Workers And Monitoring Technicians.**
- **Permits Reduction In Use Of Overly Conservative Protective Measures That Cause Non-Radiological Health Risks.**