

FCC Interests in Thermal RF Exposure Thresholds

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Ed Mantiply

Office of Engineering and Technology
Federal Communications Commission

Overview

- Exposure Limits – Balancing Needs
- The Process: From Endpoint to Exemption
- Some Questions about Potential Occupational Overexposure



Exposure Limits – Balancing Needs

- Legal requirements for large industries and small businesses
- Responsive to public health concerns about continuous exposure particularly for children
- Specific and fully defined
- Well founded on science
- Easily explained
- Minimum impact especially for small business



The Process: From Endpoint to Exemption

- Endpoint - adverse effect
- Mechanism - physical interaction (Thermal)
- Safety Factor - statistical uncertainty
- Basic Restriction - internal field (SAR)
- Reference Level - exposure field or current (MPE)
- Evaluation - field measurement or computation
- Exemption - from evaluation, based on source power and separation distance



Some Questions about Potential Occupational Overexposure

- Limits versus Injury (safety factors)
- Tower climbers near FM broadcast antennas are a common concern for high-level exposure.
- What adverse outcome is expected for whole body (not plane wave) overexposure and at what level?
 - Localized internal tissue thermal damage or whole body overheating?
- Is there a case for adverse health effects without acute injury due to chronic overexposure?



Questions, Discussion

Thank you