



Advance Notice of Proposed Rulemaking 10 CFR Part 20

NRC Public Meeting - October 9, 2014

**Issue 3 – Dose Limit for Embryo/Fetus of a
Declared Pregnant Occupational Worker
(DPOW)**

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Dose Limit for Embryo/Fetus of a DPOW

Background

- ❖ Currently 10 CFR 20.1208 (a) set the dose limit at 5 mSv (500 mrem) for the entire pregnancy
- ❖ 10 CFR 20.1208 (d) states if the dose equivalent to the fetus is within 0.5 mSv (50 mrem) of the limit during the time of declaration, additional exposure to the fetus can not exceed 0.5 mSv (50 mrem) for the remainder of the pregnancy
- ❖ Declaration is DPOW's Choice

Dose Limit for Embryo/Fetus of a DPOW

- ❖ The requirements in 10 CFR 20.1208 are based on the ICRP publication 26 (1977)
- ❖ ICRP publication 103 (2007) recommends the dose limit to embryo/fetus to provide the same level of protection as member of the general public (1mSv (100 mrem))
- ❖ ICRP publication 103 (2007) recommends applying the dose criteria after the declaration of pregnancy by the occupational worker

Dose Limit for Embryo/Fetus of a DPOW

- **Commission Direction:**
 - ❖ Continue discussions with stakeholders regarding possible revisions to the dose limit (5 mSv (0.5 rem)) for embryo/fetus and explore an appropriate and scientifically justifiable dose limit for the embryo/fetus
 - ❖ Continue discussions with stakeholders on the option of applying the limit over the entire gestation period, or only to the portion of time following declaration of pregnancy
- **Proposal:**
 - ❖ Dose limit of 1 mSv (0.1 rem)

Embryo/Fetus Questions

- **Q3-1 Are there any significant anticipated impacts associated with reducing the dose limit to the embryo/fetus of a declared pregnant woman, including operational impacts?**
- **Q3-2 Are there any benefits or impacts associated with applying the reduced dose limit over the entire gestation period, or only to the period after declaration?**
- **Q3-3 Are there any anticipated implementation impacts on recordkeeping if the dose limit to the embryo/fetus is lowered to 1 mSv (100 mrem)?**

Embryo/Fetus Questions

- **Q3-4 Are there technological implementation issues, such as limits of detection, which would make adoption of the ICRP Publication 103 recommendation difficult in certain circumstances?**
- **Q3-5 Are there data on actual dose distributions to the embryo/fetus of a declared pregnant worker? What are the trends for these data?**

Summary

- **Comments will be accepted until November 24, 2014**
 - Federal e-Rulemaking portal at <http://www.regulations.gov> under Docket ID NRC-2009-0279
 - email to Rulemaking.Comments@nrc.gov
 - fax to Secretary, U.S. Nuclear Regulatory Commission, 301-415-1101
 - mail to Secretary, U.S. Nuclear Regulatory Commission, Washington, DC 20555-0001, ATTN: Rulemakings and Adjudications Staff
- **Public Meetings / Webinars scheduled for:**
 - October 16, 2014
 - October 23, 2014

<http://www.nrc.gov/about-nrc/regulatory/rulemaking/potential-rulemaking/opt-revise.html>