Reproductive Hazards in the Mining Workplace

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Reproductive Hazards

Focus on Women in the Mining Industry
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Focus on Men in the Mining Industry
→ Sandra Dorman
Trends – Women in the Workplace and in the Mining Workplace

Women represent 14% of the workforce in the mining industry - well below the national average (Mining for Diversity, 2008)

Ramp Up, 2010, WIM
Enhancing participation of women in mining and exploration

recruitment, retention and advancement in all areas of the mining sector:
- Laboratory
- Heavy equipment operation
- Remote exploration
- Management etc...

“Offer healthy and safe work environment”
(Ramp-UP, 2010, WIM)
Provide workplace health and safety information and tools for pregnant & nursing female workers

*Why?*

Women are generally having children later in life and may have concerns around workplace hazards that may impact pregnancy.
Partnership WSN - CROSH/LU

Need for resources for pregnant and nursing female workers in the mining industry

Objectives to provide information about:
1) the health effects of workplace reproductive hazards in the mining industry
2) the measures or controls to prevent and minimize exposure to hazards
Guide to Healthy Pregnancies in the Mining Workplace (2012)

http://www.crosh.ca/publications.html

Agnico-Eagle
(French - translation)
What is a workplace reproductive hazard?

• Physical, chemical, biological or other agents that can adversely affect the reproductive health of women and men and the growth/development of a fetus.

• Infertility, miscarriages, premature labor, low birth weight, congenital abnormalities of fetus.
Guide to Healthy Pregnancies in the Mining Workplace. 
A Laurentian University & Workplace Safety North Initiative

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Why is a pregnant employee at greater risk to hazards?

• Changes in circulatory, respiratory, endocrine, and musculoskeletal systems
Circulatory
- Normal increases in heart rate and blood volume
- Risk of dehydration, edema and fatigue

Respiratory
- Increased respiratory depth due to oxygen demands of fetus
- Risk of inhaling greater amounts of toxicants

Endocrine
- Hormonal changes cause tendon/ligaments to soften
- Risk of joint injuries

Musculoskeletal
- Enlargement of uterus/anatomical changes
- Risk of back strain, sciatic nerve impingement, reduced blood flow to legs
Concerns related to breastfeeding

• Contaminants can get into breast milk through inadvertent exposure
• When suspected exposure to a contaminant, blood plasma levels of the agent should be measured in the employee prior to breastfeeding
Challenges in developing guidelines to protect the pregnant employee

• Data regarding risks of exposure to hazards are mostly for non-pregnant workers
• Effects of hazardous agents on reproductive health come primarily from animal studies
• Regulatory agency-determined exposure level parameters are almost always for non-pregnant workers
• Keep exposure ‘as low as reasonably achievable’
“In many cases, only minor restructuring of the work environment or work schedule and use of protective equipment are required to ensure the safety of the pregnant employee and her unborn child.”
Addressing female employees’ workplace concerns related to pregnancy will have a positive impact on the mining industry’s ability to attract and retain women to its workforce.

(Ramp-UP, 2010, WIM)
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