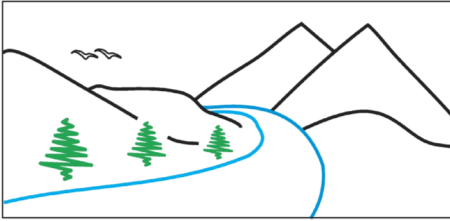


NRESi



"Our environment is our future"

Friday

Oct 9, 2009

3:30 - 4:30

LECTURE THEATRE

7 - 152

**LIGHT REFRESHMENTS
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RESEARCH COLLOQUIUM SERIES

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Improvements to Mass Balance Estimating Methods: Assessing Soil Ingestion in People Following Traditional Lifestyles

Assessing the risks of adverse health effects posed by contaminated land in Canada is essential for decisions regarding site access, and prioritization for remediation. Routine human health risk assessment (HHRA) methods require knowledge about both hazard and exposure. Unintentional dietary ingestion is a significant source of potential exposure to contaminated soil particles. However, ingestion rates used in HHRAs are the subject of considerable controversy. The majority of studies that have quantified soil ingestion rates in adults and children have used subjects living in urban or suburban environments. However, many of the contaminated sites in Canada where HHRAs may be used to direct soil cleanup criteria are allocated in rural and wilderness areas. Published soil ingestion studies do not provide sufficient information to derive soil ingestion rates for traditional land use scenarios that would be more typical of populations in rural and wilderness areas. This presentation identifies areas where methods for estimation of soil ingestion rate could be improved or modified to facilitate studies of populations following traditional land use practices. The presentation will also propose changes to methods for estimating soil ingestion that may address uncertainties inherent in previous studies. The proposed methods employ naturally occurring radionuclides as readily detectable tracers.