NORM Group Organization participation - International Conference on Radiation Biology, Banaras Hindu University, Varanasi, India, November 20-22, 2006

Prof. Leela Pillalamarri , Director of the Economics Division of the NORM Group, Visakhapatnam, India participated in the International Conference on Radiation Biology, held at Banaras Hindu University, Varanasi, India , during November 20-22, 2006. Her abstract entitled, "The Economics of Radon as a Public Health Hazard" has been published in the Indian Journal of Radiation Research , Volume 3, No.4, November 2006, p.226. The abstract has been selected for poster presentation during the Seminar.

Abstract No. 109
THE ECONOMICS OF RADON AS A PUBLIC HEALTH HAZARD
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The World Health Organization recognized radon as a health hazard causing fatal lung cancer. Radon is a naturally occurring radioactive gas entering buildings from the soil. In recent times people are spending long periods of time in closed building environments. There is a need for a national radon policy defining threshold exposure levels for response and control. There are plans to introduce requirement of radon-resistant new construction (RRNC) as part of the building code for single family houses. This requires a guidance manual for development of cost information and benefit evaluation. Cost effectiveness of the programs has to be studied. Controlling outdoor air alone is not sufficient to improve public health. Healthful indoor environments are also essential. Maintenance, energy management and air distribution are also important. Corrective action should include these issues. Government should provide necessary funding for conducting research, educational, technical and legal assistance, and to develop policy options coupled with available technologies as part of remedial measures, for reducing indoor air pollutants. The object of the present paper is to consider the economic aspects of radon exposure in buildings, high rises, schools and kindergartens.

Dr. P. Neelaprasad , Nizam Institute of Medical Sciences, Hyderabad (Andhra Pradesh), India , The NORM Group , Hyderabad, (Andhra Pradesh), India , participated in the International Conference on Radiation Biology , held at Banaras Hindu University, Varanasi, (U.P.), India, during 20-22 Nov, 2006. She made an oral presentation of her paper entitled
" Environmental Radon as a Source of Internal Alpha Radiation ". Her Abstract has been published in the Indian Journal of Radiation Research, Vol 3, No. 4, November 2006, p. 226.

Abstract No. 110

ENVIRONMENTAL RADON AS A SOURCE OF INTERNAL ALPHA RADIATION

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Abstract: Radon is a naturally occurring radioactive material (NORM) and is a source of alpha radiation. Radon contributes to about half of total exposure of a person amounting to 1.5- 2 mSV per year. Exposure dependent human health risks attributable to inhalation of radon and its progeny in dwellings, schools, underground tunnels, mines and spas are documented extensively. Fifty percent of the primary health care physicians are aware of the etiology of lung cancer from radiation of bronchial epithelial cells from the inhaled radon and its progeny. However, what is not known widely is that radon solubility in body fluids leads to a source of internal alpha radiation causing nano-injury at the cellular level leading to structural and functional aberrations.

This work explores the role of environmental radon as a source of internal alpha injury and the onset of malignant or dysplastic changes of the structure as a healing response to the nano-injury by alpha particle radiation.