NOTES

SEISMIC RISK MANAGEMENT AND MITIGATION FOR URBAN CONGLOMERATIONS

R.N. Iyengar and S. Ghosh of the Department of Civil Engineering, Indian Institute of Science, Bangalore presented a paper recently on the "Seismic Hazard Microzonation of Delhi City" in the National Seminar on Disaster Management and Mitigation held at the Structural Engineering Research Centre, Chennai (June 20-21,2003), under the auspices of the Indian National Academy of Engineering.

The paper has attempted to map the Peak Ground Acceleration (PGA) values for Delhi City using the state of art probabilistic seismic hazard analysis (PSHA) methods. The authors opine that the seismic hazard at Delhi is controlled broadly by two different tectonic regimes with differing recurrence characteristics. The first regime has the source in the Indo-Gangetic plain nearer to Delhi city while the second regime is related to the distant events originating in the Himalayan plate boundary. They present a seismo-tectonic map of greater Delhi area with all the twenty identified faults plotted. A controlling region of 300 km radius around Delhi has been taken up for the study with analysis of data on regional recurrence patterns over the last 300 years.

Probabilistic seismic hazard analysis has helped in arriving at the mean annual probability of excedance of PGA value at any site. Results of the study in the form of a contour map covering Delhi city and environs on a grid of 1 km x 1 km has been presented for the use of engineers for hard rock sites in Delhi. Surface level PGA values for soft soil sites are being computed after necessary corrections.

The recent Gujarat Earthquake as well as the earlier Latur Earthquake have brought home the importance of suitably designed civil engineering structures/buildings based on an objective study of anticipated seismic risk factor on a finer scale, particularly in our fast-growing urban conglomerations. Both underestimation or overestimation of the seismic hazard will prove costly in the long run. Hence the city level information provided by the authors for greater Delhi area is to be welcomed as a starting point for other major urban conglomerations in the country to mitigate seismic hazard on a more realistic and scientific basis.

Interested readers may obtain the full text of the paper from the Proceedings of the 2003 National Seminar on Disaster Management and Mitigation brought out by M/s Phoenix Publishing House Pvt. Ltd. 21, Prakash Apartments, 5 Ansari Road, Daryaganj, New Delhi-110 002; **Email:** phoenix@ouseph.com.

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GEOLOGY, GEOCHEMISTRY AND GENESIS OF RARE METAL BEARING GRANITIC PEGMATITES FROM PARTS OF SOUTHERN KARNATAKA*

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EXTENDED ABSTRACT

Rare metal Li, Be, Nb and Ta bearing pegmatites of southern Karnataka, especially those found at Marlagalla, Allapatna, Byderhalli, Hassanpura, Mundur and Arehalli have been recognized as an important source for Nb, Ta, Li and Be by AMD. An understanding of their geology and genesis, however, has been very limited. The present lecture

**Lecture delivered at the monthly meeting of the Geological Society of India at Bangalore on 25 June 2003.*