

## **Indoor Radon Air Pollution Problems in Terms of the Sick Building Syndrome**

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New type indoor air pollution called as “SBS”, or sick building syndrome, which was caused by the dramatic reduction in ventilation rate into non-occupational environments in order to establish a one of the counter measures for energy conservation to cope with so-called oil shock, was a one of the most serious IAQ (indoor air quality) problems in the world. The SBS problem was also drawing big social attention in Japan, and was somehow called SHS or “Sick House Syndrome”.

Radon is deemed a one of the worst pollutants causing the SBS in North European and American countries in 1980s. For example, 45 papers, which was almost 10% of the total 500 papers, presented to an international conference on IAQ entitled “IA '90” held in Toronto, Canada, were reported the radon pollution problems. There were many exhibition booths of the radon measuring instrument companies and firms dealing with the radon pollution protection goods, such as, ventilation fans for rooms and crawl spaces in the exhibition held simultaneously to the conference. There was also the booth of a company named “Radon Press” which was issuing news paper named “The Radon Industry Review” and the almanac named “The Radon Directory”. These facts indicated that counter measures for radon pollution problems had been a confirmed industry.

Nevertheless the researches on radon pollution problems in terms of SBS were declined rapidly, and were replaced by the researches on IAQ problems caused by chemical and biological contaminants, even though no final solution for the radon problem was obtained.

But the radon research give us many useful information to solve SHS problems caused by many pollutants including chemicals and biological contaminants other than radon, because mechanisms acting in the indoor air environments were not different much between the radon and the other pollutants.

The lecture will review the preceding researches and will discuss about the radon pollution problems in the lecture.