

## **STUDY OF “FEELING OF RISK” ABOUT PRTR INFORMATION -CASE OF DATA ABOUT RELEASE OF HOUSEHOLD CHEMICALS-**

Mariko Nakamura, Satoru Yamaguchi, Yasuyuki Sugiyama,  
Koh Kajii\*, Masako Itoh\*\*

NTT Energy and Environment Systems Laboratories

\*NTT Advanced Technology Corporation

\*\*Human Science, Tokiwa University

9-11, Midori-Cho 3-Chome, Musashino-Shi, Tokyo 180-8585, Japan

\* 90-6, Kawakami-Cho, Totsuka-Ku, Yokohama-Shi, Kanagawa 244-0805,

Japan \*\* 1-430-1, Miwa, Mito-Shi, Ibaraki 310-8585, Japan

When environmental risk information is disclosed, it should be designed for risk communication as an interactive process of exchanging information and opinions. For that purpose, at first we focused on developing the involvement of the recipient of the communication, not intending for that party to understand the risk properly at that time. This is because it is more important to develop communication with the recipient during the first stage than for the recipient to understand the risk itself completely. Many previous studies have focused on the risk perception related to various topics, such as nuclear accidents, radioactive waste, and alcoholic drinks because they have already been deeply involved with those risks. However, in the case of environmental risk it is necessary for the recipient of the communication to be interested in the information about the risk and to participate in risk communication at first. We have experimented with the key factor affecting the recipient's "feeling of risk", such as anxiety and concern, from the viewpoint of relevance to the lives of the recipients of the communication.

We used data from the PRTR (Pollutant Release and Transfer Register), which is a legal requirement in Japan, as the environmental risk information. The source data concerns chemicals released from industrial establishments via waste products or from houses, farmlands,

etc.

In our previous experiment on data about chemicals released from industrial establishments, we prepared three sets of information about amounts of chemicals released on national, prefectural, and local scales. Their anxiety and concern about the risk, “feeling of risk”, increased when they read information about their own residential areas. The findings explain that the recipient views the risk information in relation to their daily lives and their involvement. That is, in this case, the establishment's distance from the subject's house was the main factor in ‘relevance to the lives’ of the recipients of the communication [1].

In this study on the recipient's “feeling of risk” about information about chemicals released from households, we expected the recipient to be more interested in the information than in that about chemicals released from industrial establishments. However, they are not familiar with the names of chemicals, even ones utilized in various home products. In this experiment, we introduced information about the types of home products in which the chemicals were used as the factor for ‘relevance to the lives’, in addition to the above-mentioned three geographic scales. We found that the recipient’s anxiety and concern about the risk, “feeling of risk”, increased when they read about the products, and this time, there were no differences among the three geographical scales.

Our findings explain that information on the use of chemicals (type of product) is the most important factor to the recipient having relevance to their lives and generating subjective involvement, in the case of data about chemicals released from households. We conclude that the “feeling of risk” is affected by the factor of the ‘relevance to the lives’ or their familiarity with the information, and it depends on the characteristics of the PRTR data. In order to achieve effective risk communication, further studies on the trust and reliability of the disclosing organization, as mentioned on previous studies, should be conducted for clarifying other factors affecting “feeling of risk”.

REFERENCE: [1] Nakamura, Yamaguchi, Sugiyama, Kajii, Itoh : Study of “feeling of risk” about PRTR information -Case of industrial establishments- ; Proceedings of the SRA-JAPAN Annual Conference, 16, 371-376 (2003)