

Executive Summary

Pilot Research Project on Risk Communication related to Nuclear Technology and Its Utilization: Toward Communication and Collaboration with the Community

Background and Purpose

Although the importance of risk communication has been pointed out over the last decade in the nuclear community, no definite action has yet been conducted by either the public authorities or the nuclear industry. This could give the public the impression that the nuclear community's attitude toward communication and consultation with the public about risk issues is halfhearted, compared with the chemical and food safety fields, both of which recently launched risk communication activities.

In Tokai village, where the 1999 JCO criticality accident occurred, the residents are demanding visible progress in risk communication activities, with the aim of creating a model community of nuclear safety assurance that coexists with nuclear power.

In this study, we conduct risk communication experiments on risk issues associated with nuclear technology and its utilization in Tokai village, for the purpose of establishing risk communication in our society, which might foster a new relationship between science and technology, and society. We will make up practical guidelines or manuals for: 1) process design and its implementation, 2) risk message design, 3) assessing the public's needs and concerns, 4) bringing up the issue of risk communicator and facilitator, and 5) and clarifying the social effects of risk communication activities, through experiments involving volunteer residents, village officers, and nuclear professionals.

Summary of FY2002 Study

Objectives

The objectives of the FY2002 study are threefold: 1) to prepare reference information for assessing the social effects of risk communication activities based on the results of a questionnaire survey of residents' awareness of nuclear and environmental risks, 2) to recruit participants from among local residents for experiments, and 3) to examine the themes and communication platforms of risk communication experiments.

Outcomes

- A. Preparation of risk communication experiments on nuclear technology and its utilization
 - (1) Recruitment of participants for the experiments

Recruitment of participants for our risk communication experiments has been carried out since January 2003 through the distribution of leaflets with an application form at community centers, and through the village's publicity campaigns, including the questionnaire survey mentioned before and on the Nuclear Power Technology C³ Project Web site. At the end of March 2003, the number of residents volunteering was six; hereafter we will continue with recruitment activities in various ways.

(2) Assessing risk issues of high concern and the risk perception of the residents

The questionnaire survey in Tokai village and the neighboring areas was undertaken in order to assess risk issues of high concern, perceptions of risks in daily life, and awareness of nuclear-safety assurance including crisis management, desirable circumstances for communication, and consultation with the village office and nuclear professionals.

(3) Examination of basic information for creating risk messages

In order to create effective risk messages used in experiments, we examined the categories of information needed from the viewpoints of risk comparison and risk management, and collected various statistical data.

(4) Preparation of base and platform for experiments

The base for the collaborative study and the Web site has been established. These are used as one of the platforms for the risk communication experiments.

B. Assessment of the social effects of risk communication activities

A research team of social scientists (in sociology, social psychology, public policy, etc.) has carried out a questionnaire survey to assess the residents' awareness of nuclear and environmental risks, before implementing risk communication experiments in the village. The survey has been conducted on residents randomly selected from the resident registers of Tokai village (1,000 samples) and the adjacent areas of Hitachi city, Hitachinaka city, and Naka town (200 samples respectively). There were 1,197 complete responses.

The survey indicated the following points: 1) the residents recognize food safety, wastes and safety issues, as well as nuclear safety as risk issues of high concern; 2) the residents perceive terrorism, nuclear wastes, and nuclear power plants as risky activities and technology; 3) there is a significant gap of risk perception between the residents of Tokai village and the neighboring areas, as well as between nuclear professionals and non-nuclear people; 4) the residents attach importance to the precision, understandability, availability, and trustworthiness of providers of risk information; 5) most residents do not have the opportunity for dialogue with public officials and nuclear professionals, although they recognize the importance of such dialogue; and 6) about 10-20% of the respondents feel

they cannot easily communicate with the relevant authorities. This perception included factors such as a lack of personal attempts, a lack of eagerness on the part of public officials to listen to residents' voices, and a lack of approachability on the part of local authorities.

C. Preparation of a practical guidebook for risk communication experiments

In order to help the participants in the experiments, we prepared our guide to assist citizens in understanding risk information, and a guide for enterprises and research institutes on how to manage the communication process and create risk messages, based on the existing guidelines and manuals in overseas countries. In addition, we examined the communication toolkit of the US Environmental Protection Agency before preparing a guide for the effective use of the Internet and a manual for facilitators.

Upcoming Tasks

Through communication and consultation with the participants, particularly the residents who volunteered to participate, upcoming tasks will include a determination of themes and designs for effective communication platforms and risk messages for risk communication experiments. In addition, we will attempt to procure the participation of other important stakeholders such as NPOs, mass media, etc., in the societal assessment of this study