

Executive Summary

Subject

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

Background and Purpose

Although the importance of risk communication has been pointed out over the last decade in nuclear community, both public authorities and nuclear industry have not conducted the definite actions yet. It will be reflected in the public eye that nuclear community's attitude toward communication and consultation with the public about risk issues is half-hearted, comparing with chemical and food safety fields which recently launched their risk communication activities.

In Tokai village where JCO criticality accident occurred in 1999, the residents demand to progress risk communication activity in visible way for aiming at creating a model community of nuclear safety assurance that coexists with nuclear power.

In this study, we conduct risk communication experiments on some risk issues associated with nuclear technology and its utilization in Tokai village, for the purpose of establishment of risk communication in our society that might be one of the new relationships between science & technology and society. We will make up practical guidelines or manuals for 1) process design and its implementation, 2) risk message design, 3) grasping the public needs and concerns, 4) bringing up risk communicator and facilitator, and clarify social effects of risk communication activities, through the experiments involved voluntary residents, village officers and nuclear professionals.

Summary of FY2003 Study

Objectives

The objectives of FY2003 study are the following fourfold; 1) to design and implement a couple of risk communication experiments, 2) to make a preliminary evaluation of the experiments from some social viewpoints, 3) to prepare an practical guide for facilitator, and 4) to examine the contents of risk information concerning nuclear technology and its use.

Outcomes

(1) Risk communication experiments on nuclear technology and its utilization

In consideration of the results of the questionnaire survey conducted in 2003, the project team established four types of communication platform and implemented them as follows.

Resident-initiative risk communication activities

The purpose of this program are to demonstrate that "something change" is really happening by the residents own voices and proactive commitments. A voluntary resident group entitled

"Let's come up with nuclear safety and the environment in Tokai village" have been setting program agenda and discussing details of activities for about four months at the meeting facilitated by our project member. As results, the following two programs were proposed; 1) Safety inspection of nuclear facility by the residents, 2) Development of interpreters to the residents about risk information relating to nuclear disaster and its countermeasures.

As for the former program, voluntary group decided to implement the inspection of JNC-Tokai works as a first trial, and had communication and consultation meetings twice with JNC about contents of inspection including facilities, constraints and schedule. After that, a full-day safety inspection by nine residents has been carried out on 20th October 2003 at JNC-Tokai, focusing on safety measures in the reprocessing plant and waste processing facility, environmental risk management, quality assurance system, overall organizational safety culture and so on. After a couple of interactive communication and discussions between the inspection team and JNC, the inspection team provided JNC with the report. On the other hand, concerning the latter program communication and consultation about feasibility of the proposal between the voluntary residents and Tokai village office are in progress. In addition to these resident-initiative programs, the project team are planning to conduct semimonthly public seminar for development of risk literacy about science and technology, under collaboration with the University of Tokyo and risk researchers.

Activities for the general public

To deliver activities of this project and raise the concern about risk issues, the project team published a monthly newsletter to all households in the village, and opened research report, minutes of the meeting, newsletters etc. at the web site (<http://tokaic3.fc2web.com>).

Workshop: Let's talk about risks in daily life

The workshop has been held at Tokai village on 22 November, 2003 under the joint auspices of the Society for Risk Analysis Japan-section. The purpose of the workshop is to provide an opportunity of dialog about highly concerned risk issues in daily life between the residents and risk professionals. Total number of participants was 61 including 18 residents. They were divided into the groups of nuclear power, foods, chemicals, wastes and natural disasters, and argued actively.

(2) Preliminary evaluation of risk communication activities

The project team made a preliminary evaluation of resident-initiative risk communication activities and the workshop. Viewpoints of evaluation of communication itself are as follows; 1) degree of common understanding of issues concerned, 2) fair commitment, 3) collaborative attitudes, and 4) resolution of opposing opinions. Viewpoints of evaluation of communication effects are as follows; 1) creative and proactive proposals, 2) trust and confidence among participants, 3) durability of incentives, and 4) ripple effects.

As for resident-initiative activities, it can be said that communication effects above-mentioned were observed clearly although there were some problems relating to common understanding of issues concerned and fair commitment among the residents or between residents and JNC or the project team. As for the workshop, it was confirmed through the questionnaire to the participants that the purpose of workshop was generally achieved.

(3) Preparation of practical guidebook for risk communication experiments

A draft of practical guide for facilitator in risk communication activities was prepared, based on the existing manuals and our experiences in this project. Focusing points in the guide are preparation before facilitation, maintaining neutrality of facilitator and facilitation techniques.

(4) Development of risk messages

The project team identified the contents of risk information concerning nuclear technology and its use in a context of health, safety and environmental risk communication and classified them into temporal and spatial dimensions to help public understanding of characteristics of nuclear risks. And it was examined what kind of risk information must be prepared additionally for communicating with the residents about severe accident of nuclear power plant in the context of comparison of risks with those in daily life or other technological risks.

Coming Tasks

In the FY 2004 as the last year of project, we are going to focus on multifaceted evaluation of social effects of ongoing risk communication activities such safety inspection of nuclear facility by the residents. In addition, we are going to propose institutional design toward socials fixing of risk communication, on the basis of sociological and socio-psychological considerations such creation of organization enabling continuous activities, collaboration with educators, organizational issues of administrative office and nuclear industry etc.