

Insights on the National Status of Nuclear Crisis Communication

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1. Introduction

In general, the term, “risk communication” can be defined as a two way interaction process which can share internal attributes between personals, organizations, and others, where it usually comes from a “normal risk” in areas of safety, health, security, environment, etc. We can also classify the communication issues with “general case,” “local case,” and “crisis case,” respectively, in terms of the impacts on public perception.

As a general concept, “nuclear crisis” can be defined as a situation where nuclear radiological emergency plan and procedures shall be applied to cope with radiological accidents or emergencies which may occur at the nuclear power plant or radioisotopes using companies, hospitals, and universities. “Crisis communication” refers one of the activities done by the Nuclear Regulatory Organizations (NRO) in order to protect the public and the environment from the possible harmful effects.

There is an international initiative for searching a practical “road map” with good practice guidance for NROs of each country on crisis communication, covering planning during normal situations, lessons learnt from emergencies or challenging events, and media strategy [1]. The “road map” is based on the identification of best practices and challenges when facing either planned situations or unexpected situations which might affect NRO’s credibility.

It is also important to fully know how our NRO operates in order to communicate with the public and the media within the complex network of public organizations, covering both the national and local perspective.

In this paper, we want to survey relevant illustrations of NRO’s flux of work concerning public, media communication cases in abnormal/crisis/emergency situations. Also, we will talk about the responsibilities of each area and clarify who is in charge of external communication. By this way, we can find an adequate scheme showing the involvement of NRO with other public organizations during a crisis situation. By comprehensively searching the national status, we can have a way to establish nuclear risk communication framework for supporting enhancing social acceptance, and clarifying a difference regarding public cognition and information.

2. Overview of the National Status

“Crisis communication” represents a series of communication to be exchanged by the NRO between

the NRO and media, residents and the general public, interested groups and public authorities, before and during a crisis. It also includes a cycle of feedback from them after a crisis in order to generate the pre-cautious measures and prevent the same crisis situation from happening again. A typical type is a radiological emergency occurred at nuclear facilities; sites, research reactors, radioisotope facilities and spent fuel facilities, etc. Another type is a countermeasure for finding and retrieving lost or stolen, contaminated radioisotopes. It seems that Korean crisis management covers many related fields, such as nuclear safety, radiation protection/health impact, and pollution, as well as natural/environmental disasters.

Most of the media headlines with negative courage are needed the NRO’s prompt and urgent response, but in terms of provoking a reactive action by the NRO, it happened after the Korean NROs discuss how to respond in due course. In summer holiday season, it takes some more time, but normally it is not a big problem - even holiday season the system is still working.

3. National Status - Communication Channels

When a crisis occurs, real or just based on a rumor, the primary responsibility rests on the licensee regarding the reporting of the public announcements of accidents and incidents for nuclear power utilization facilities. Also, NRO, being reported and kept informed by the licensee about the crisis, actively communicates with the public, media and relevant government organizations to responsively answer the questions about “safety” aspects and deal with their concerns.

During a crisis, Public Information Dept. is officially responsible for collecting the information at the agency and delivering the message to the public and the media as the “official channel.” Instead, Korean NRO operates the pre-planned “emergency response team”, on-call duty system to cope with the crisis more systematically and effectively. The team is composed of the managers and experts selected from each related major areas.

In general, the press release document is the most official channel. Then a web and interview, press conference are also followed as other means of the channel. As a time sequence order, press release comes first and web channel is used for the longest period until the crisis is analysed, reviewed and the lessons learned are reported to the public.

KINS homepage is a portal site and links the following several sub-sites dealing with crisis management-related matters.

- CARE (<http://care.kins.re.kr>): a computerized system to diagnose plant conditions promptly and to assess radiological consequences, potentially affected areas, and necessary counter-measures,
- OPIS (<http://opis.kins.re.kr>): a comprehensive database system providing data on design, operation and event as well as the INES and SPI for the NPP,
- NSIC (<http://nsic.kins.re.kr>): an information release website both normal and emergency situation.

Korean NRO has operated several emergency response centers. Each emergency response center is interconnected with exclusive hot lines and networks. Also all the centers are centrally linked to the KINS CARE system. On a daily basis they are monitored by on-line system at KINS.

Korean NRO monitors the media's articles everyday. But monitoring them in normal situation is one thing, and knowing which information is more useful for the media during an emergency situation is quite another. Theoretically, if the NRO has been monitoring the media articles continuously, it would be helpful in any way to cope with them during a crisis. However, looking back on our past experience, we cannot judge that it was fully helpful.

4. National Status - Organizational Coordination

The coordination is the responsibility of the government. NRO's role is to discuss with the government for the coordinated, refined information to give the public. In case of emergency, there are conference calls, meetings between different organizations under the emergency response team framework. During crisis situation, the Korean NRO operates the on-site and off-site emergency response team composed of the dispatched experts from related organizations.

According to the Article 29(1)3 of the "Act on Physical Protection and Radiological Emergency", the head of an off-site management center (OEMC) shall have the authority to decide urgent public protective actions including sheltering, evacuation, and restrictions on the ingestion of food and water, as well as distribution of iodine prophylaxis.

As provided in the Article 28 of the aforementioned Act, the Nuclear Emergency Management Committee (NEMC) is chaired by the MEST in the central government. The OEMC shall be set up and operated by the on-call duty members dispatched from central administrative agencies, local governments and designated institutions.

The OEMC has a different response structure and measures depending on the types of crisis situations: 1) nuclear facilities crisis, 2) radioisotopes related crisis, 3) radiological terror crisis. In coping with those situations, he has a manual defining all key functions

and checklists - including a "What to do" list in case of a crisis situation.

Under the international convention on notification, the Korean NRO has the obligation to notify and inform the IAEA and the neighboring countries if there is a risk of trans-boundary release or if general protective actions have been taken for the population.

Independent of the type of crisis situations, it is noted that a dedicated team for risk communication should be established by the government, including regulatory body and utilities. The team can manage a crisis corresponding to all kinds of communication channels.

5. Conclusions and Further Study

We have primarily discussed practices of crisis communication in Korea, including typical types, and denoted response teams in crisis situations. It is noted that there is a country-specific nuclear risk communication framework showing the involvement of NRO with other public organizations during a crisis situation. Table I provides practice differences between countries.

As shown in Table I, we have many topics for further enhancing crisis communication, especially in the areas of training, organization, etc. The R&D project is on-going to prepare a coping guidance for this kind of risk communication; thus, further research results such as the analysis by experts' survey, a model for information propagation and specific coping scenarios would be given and utilized.

Table I: Comparison of specific crisis communication practices between countries

| Topics | Korea | France | Germany |
|--|--|--------------------------|--|
| Related fields | - Nuclear safety - Rad. impact - Natural disaster - pollution | Same as Korea | - Nuclear safety - Radiation impact |
| Specific training activities | Not active yet | Tailored | Occasionally |
| Availability of pre-selected person to the media | No | Yes | Yes |
| Available Websites | - Regular NRO website - Crisis management website | - Crisis management web. | - Regular NRO web. |

REFERENCES

- [1] Y.-H. Hah, *Korean Response to the CNRA/WGPC Questionnaire about Crisis Communication*, Feb. 2010.