Nuclear Regulation
2013

Crisis Communication: Facing the Challenges

Workshop Proceedings
Madrid, Spain
9–10 May 2012


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NEA No. 7067

NUCLEAR ENERGY AGENCY
ORGANISATION FOR ECONOMIC CO-OPERATION AND DEVELOPMENT

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NUCLEAR ENERGY AGENCY

The OECD Nuclear Energy Agency (NEA) was established on 1 February 1958. Current NEA membership consists of 31 countries: Australia, Austria, Belgium, Canada, the Czech Republic, Denmark, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Japan, Luxembourg, Mexico, the Netherlands, Norway, Poland, Portugal, the Republic of Korea, the Russian Federation, the Slovak Republic, Slovenia, Spain, Sweden, Switzerland, Turkey, the United Kingdom and the United States. The European Commission also takes part in the work of the Agency.

The mission of the NEA is:

- to assist its member countries in maintaining and further developing, through international co-operation, the scientific, technological and legal bases required for a safe, environmentally friendly and economical use of nuclear energy for peaceful purposes, as well as
- to provide authoritative assessments and to forge common understandings on key issues, as input to government decisions on nuclear energy policy and to broader OECD policy analyses in areas such as energy and sustainable development.

Specific areas of competence of the NEA include the safety and regulation of nuclear activities, radioactive waste management, radiological protection, nuclear science, economic and technical analyses of the nuclear fuel cycle, nuclear law and liability, and public information.

The NEA Data Bank provides nuclear data and computer program services for participating countries. In these and related tasks, the NEA works in close collaboration with the International Atomic Energy Agency in Vienna, with which it has a Co-operation Agreement, as well as with other international organisations in the nuclear field.

Foreword

In the late 1990s, the OECD Nuclear Energy Agency (NEA) Committee on Nuclear Regulatory Activities (CNRA) identified the interface between regulatory authorities and the public as a major challenge. The committee concluded that in many countries the interaction between regulatory bodies and the public is quite different for a variety of reasons, and it appeared useful to start working on understanding commonalities and differences and clarifying the most appropriate conditions and practices for improving this interaction.

A first workshop on this interaction, entitled "Investing in Trust: Nuclear Regulators and the Public" was held in Paris in 2000, which provided a unique opportunity for exchange on national practices regarding regulatory bodies' relations with the public. It showed that good governance and efficiency in decision-making increasingly rely on mutual trust and confidence between authorities and the public. Based on the conclusions of this workshop, the CNRA decided to set up the Working Group on Public Communication of Nuclear Regulatory Organisations (WGPC) in order to maintain the exchange of experience.

In 2004, the CNRA organised a second workshop, held in Ottawa, Canada, entitled "Building, Measuring and Improving Public Confidence in the Nuclear Regulator". A general observation from the presentations and discussions during that meeting was that cultural differences between countries are large, and similar means of communication are not effective in all of them. It was also clear that in some countries, regulators can achieve public confidence more easily than in others. An important factor is the general trust in government and its representatives. However, a number of common principles were identified that can be recommended to all regulators.

In 2007, Japan invited the CNRA to organise a third workshop dedicated to the transparency of nuclear regulatory activities. The workshop highlighted the importance for regulatory authorities, whose prime mission is to protect the public, to develop transparency with the public and the media. Workshop participants developed a common understanding of stakeholders' expectations regarding transparency in nuclear regulatory activities, identified a number of new practices for implementing and developing transparency in such activities, and shared experience on the impact of transparency on the regulator.

In early March 2011, the WGPC was in the final stages of preparing its "Road Map on Crisis Communication for Nuclear Regulators" when the Fukushima Daiichi accident occurred. Not only did the accident highlight the importance of crisis communication, it also prompted the CNRA to organise a workshop on the topic. The workshop, entitled, "Crisis Communication: Facing the Challenges", was held on 9-10 May 2012 in Madrid, Spain. It was organised under the auspices of the CNRA in collaboration with the *Consejo de Seguridad Nuclear* (CSN). The workshop was chaired by Dr. Carmen Martínez Ten, President of the CSN. Over 180 experts attended the workshop, including 11 heads of nuclear regulatory organisations from 28 countries and 6 international organisations. Representatives from the media (TV, radio and newspapers) took part in the workshop, as did stakeholders from industry, local authorities and environmental organisations. The workshop was also webcast live.

The conclusions and recommendations of the workshop which are presented in this report have been submitted to and endorsed by the CNRA. The forthcoming activity of the WGPC will consist in capturing the main outcomes of the workshop so as to continue improving a road map for its future work.

Acknowledgements

The NEA would like to express its thanks to the Organising Committee, the session chairs and all those who contributed to the success of the workshop by presenting their work and actively contributing to the discussion. It is grateful to the *Consejo de Seguridad Nuclear* (CSN) for hosting the meeting and for the kind hospitality offered. Special thanks are due to Ms. Marina Calvo for taking care of local arrangements, as well as to Ms. Natalia Muñoz for having successfully organised the webcast. The NEA also wishes to express its gratitude to the government of Japan for supporting the meeting and its proceedings.

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- Mr. Mike Weightman, HM Chief Inspector, ONR, UK, Chairman of the CNRA

Opening session:

Welcome and introduction to the workshop

Opening address

Dr. Carmen Martínez Ten, President, CSN, Spain

The place where this workshop is being held, the Casa de América in the Palacio de Linares in the centre of Madrid, was conceived as a forum for ideas on economic, political, scientific, technological and cultural issues, with the aim of bridging the understanding gap in different parts of the world. Without doubt, it is the adequate place to deal with the subject of this workshop: crisis communication. This is a relevant issue, like all matters that the NEA/OECD has been dealing with over the years. Throughout its trajectory the NEA has become an international point of reference to address projects to increase the safety of nuclear energy, anticipating and incorporating new challenges and promoting the exchange of experiences and good practices.

We are hardly a decade into this new century and we see a world facing situations of unknown complexity. We are immersed in a globalised world where frontiers disappear, which generates interdependence. This is new to us. We live in an open world in which opportunities and risks are globalised and where local and international dimensions complement each other. In this scenario, we are required to act.

We are living in this economic dimension facing one of the worst financial crises, but also the accident of the Fukushima Daiichi nuclear power plant, which occurred a year ago. In my opinion, a common denominator links these two situations. Crises, whatever the type, have always led to a crisis of trust. It is often said that trust is very difficult to achieve, but it can be lost in a few moments. We know this in the world of nuclear safety. For this reason, we usually say in our forums, that an accident in any part of the world has repercussions in all other countries. We also know that in the world of nuclear safety, there is no room for self-sufficiency, which was demonstrated by the international community in the wake of the accident in the Fukushima Daiichi nuclear power plant. Over the last year, NROs have worked to the limit of our capacities in order to reassess the safety of the nuclear fleet and detect aspects that can be reinforced to make the safety of NPPs more robust.

Nuclear safety is a priority objective that requires the involvement of all: NROs, international organisations, public administrations and the licensees of the plants and requires international co-operation. The accident of Fukushima underlined the importance of communication for NROs and has clearly demonstrated the international dimension of communication in moments of crisis. The NEA has been working for years on communication and transparency, and one of the outcomes of this work has been the publication of the Road Map on Crisis Communication for NROs, developed by the CNRA's Working Group on Public Communication.

This seminar aims to deepen and continue this work, with the collaboration of all the participants. Communication is one of the most important challenges that NROs face; this has been highly acknowledged by the NEA.

Communication and transparency relate to new societies in which we are working and with members of the public in information and knowledge community.

NROs are aware that the demands of information and transparency on nuclear activities are growing every day. We also know that good communication and transparency are a condition for the credibility of NROs, which require coherence between what is communicated and what is done.

In this regard, I would like to highlight four aspects to be considered. Firstly, we need to develop communication skills efficiently in order to communicate our commitments as NROs. In this respect we should use all available communication channels and instruments. This is what experts call "360 degree communication". Secondly, we must understand and respond to social doubts and concerns, not only through technical explanations of our work. We also need to understand the context and language required by the members of the public. And we should not make the following mistake: more information by itself does not guarantee more transparency. We should not forget that the objective of our work is of a high technological level and that knowledge is not available to all. We should provide accessible and understandable information for the members of the public. We should be capable of talking clearly in order to be understood. Thirdly, we must be capable of maintaining stable and open relations with our environment and work consistently with stakeholders in a co-ordinated manner.

Finally, we should consider that, as our German colleagues point out, "communication in general and especially in crisis situations is not only a question of public information or information for the public, but rather communication with the authorities to guarantee that it is coherent". NEA recommendations include the need for the NROs to have a communication plan and particularly, a pre-established plan for crisis situations.

Many NROs have communication plans and procedures that should be analysed and improved in the light of what happened in Fukushima. In my opinion, we have to move two directions. First, internal communication should improve, focusing on people working within our organisations. Second, it is important to improve communication with professionals of the media to help them better shoulder the burden of informing society. They are the most important and legitimate information vehicles for public opinion. In this way, we can address the verdict of citizens, as they are the ones to decide whether institutions are transparent. It is clear that we need to improve communication in general and in crisis situations in particular. We have to be better trained to respond adequately to the media, to the public, to NGOs and to society in general.

We have a new world balance, which has transformed the order we have been living in since the Second World War. In this context of overwhelming change and economic, political and environmental turbulence, it is necessary to learn from what Christopher Hood said about "the government of risk". Governments need to design and implement new and better systems of regulation, prevention and communication. In this "government of risk", NROs do not need to say much, but have to do much. We have to work together, this is a collective effort.

Welcome address

Mr. Pablo Matos, President of the Commission for Industry, Energy and Tourism of the Congress, Spain

In this workshop we will be talking about information, transparency, openness and communication towards the public, towards society. These are areas of great importance in all fields of knowledge, particularly in the area of nuclear safety where regulation is essential, especially in crisis situations. In Fukushima Daiichi, the unprecedented natural disaster initiated a nuclear emergency. The international community acted in solidarity with Japan and has worked very hard to strengthen safety in nuclear power plants. It became evident that more work needs to be done in the field of information and communication, because they are unavoidable in our society. There is a huge requirement of information and knowledge on behalf of citizens. Those concepts are recognised today as essential. We have to move towards trust and transparency in the world of nuclear energy and nuclear industry and nuclear regulatory bodies.

The Government and the Spanish parliament have become aware of this need and have adapted to international legislation and included it in the law creating the CSN, ratified in 2004, the Aarhus Convention, and in 2006 approved the law, which regulates the right of access to information, public participation and access to justice in environmental matters. The Spanish government is currently working on developing an ambitious law, which regulates transparency, access to information and good governance. This initiative will be essential because it will contribute to foster trust in institutions and to improve the quality of our democracy.

The law on the creation of the CSN in 2007 was very ambitious in the field of information to the public and its main objective was to increase transparency and foster citizens' trust towards the activities carried out by the CSN. The obligation to inform is carried out through a parliamentary commission in congress and we are aware of the progress made by the regulator. In this commission, the strength and commitment of the CSN to enhance transparency towards the public and parliament was highlighted. Reality means that we are faced with our activities and the analysis of the Fukushima Daiichi accident is important to improve the current practices.

Finally, I would like to highlight two paragraphs of the "road map on crisis communication of NROs – nation aspects" as they justify the task of this workshop:

> *Effective crisis communication is essential to maintaining public's trust in an organisation's good governance.*
>
> and
>
> *Failure to co-ordinate a timely, accurate and consistent message from all agencies towards the public and the media can create confusion and lead to a loss of credibility, which is very difficult to regain.*

This workshop will be a good place to work and to put together all the lessons that have been learned.

Opening remarks

Mr. Luis Echávarri, Director-General, OECD/NEA

The interest of the NEA in the discussion on civil society has been important for many years and we have developed many activities related to communication with civil society. Three technical committees have undertaken specific activities for over ten years on the relationship with civil society: the CNRA (Committee on Nuclear Regulatory Activity), the CRPPH (Radiation Protection and Public Health) and RWMC (Waste Management). The CNRA, began in the year 2000 in Paris and its first meeting was called "Investing in Trust: Nuclear Regulators and the Public"; it tried to focus on the relationship between regulatory bodies and the public. It is very important for regulators to have public confidence. It is essential for the public to understand that regulatory authorities are independent, objective and that their evaluation is based on real facts and experience in nuclear safety. The first seminar was very important and paved the way for continued work in this area. In 2004, we also had another important meeting in Canada, focusing on building and measuring confidence in the regulator. Finally, in 2007 there was another important event on the transparency of regulatory activities. This workshop in Madrid is another step towards improving crisis communication after Fukushima. Unfortunately, Fukushima has given us an example, which should allow us to learn how to improve communication. I do not know if there is agreement on what happened in Fukushima, but I am sure everybody agrees that communication on the crisis was not the best example of how to communicate. We have to learn from this and to try to improve how regulators communicate not only with the public, but other authorities as well.

This year, the CRPPH has also been very active on the relationship with the public. They understand the effect of radiation on people. I think the system of protection is very complex and during the public discussions, there is always a lack of understanding of what the limit is for something, what is imminent and what effect it has on public health. It is difficult for the public to understand the effect of radiation, so the work the CRPPH has organised is very important. There were three workshops in Switzerland discussing all these issues and fixing with certain scientific societies some recommendations on what could be understood by the public. Finally, the Committee on Radioactive Waste Management has also been very interested in discussions with civil society. The position of the NEA in this Committee after many years of discussion is that from a technical point of view, there are solutions for the final disposal of high level waste in geological repositories. Even if there is a clear methodology, the safety case and society's perception are very different. It has been very important to organise workshops, some of them as part of the Forum of Stakeholder Confidence. One of them took place here in Spain, in Vandellós, where there were discussions with civil society regarding their opinions and the sensitivities on the final disposal of high-level waste. We have been very active in this area and we are trying to determine what the best practices are, which can help society understand the different decisions of the authorities, the perception of technical issues, public health issues, the effects of radiation and also long-term implications.

The NEA does not have a mandate to interact directly with society; in fact this would be impossible for us because we have 30 member countries with completely different societies. We try to bring up good practices, which can be used by governments, regulatory bodies and other responsible organisations in order to interact with civil society.

The NEA is not promoting nuclear power. We have members with different energy policies and nuclear policies. It is essential for us to have an objective view on nuclear power and to provide knowledge that the international community agrees upon in order to improve the safe, economic and environmentally-friendly use of nuclear power. However, the decision about whether to construct nuclear power plants or not rests with governments; we do not interfere with this. We endeavour to remain objective and to

present governments and all nuclear-related institutions with a clear understanding of what the best international practices in nuclear energy are.

The NEA has been working a lot on communication with the civil society. The accident of Fukushima-Dai-ichi has had an enormous impact on the future of nuclear power. It has considerably diminished public confidence in nuclear power in many countries. For nuclear power to be an option, it has to be accepted by society and public perception is a fundamental issue. The public has to understand the issues, but then they have to take their own decisions. It is very important that society sees things objectively, which is a hard task because nuclear energy is an emotional topic and many people find it extremely difficult to understand the implications of nuclear energy. What has the NEA been doing regarding Fukushima?

First of all, the NEA organised help specifically tailored for the government of Japan from the very beginning. We were and still are able to help. Thanks to experts from different countries in areas such as the stress tests, we were able to convey the experience of other countries to Japan. We also discussed the new regulatory body, which is going to be more independent, but there are still many difficulties to implement the legislation, and the recovery phase in areas surrounding the Fukushima nuclear power plant. We have insisted, based on our post-Chernobyl experience on the importance of communication with civil society during the recovery phase.

It is not only very important to have sound and objective criteria for where you can live or not, what you can eat or not, grow or not on farmland, but that is not enough. It is very important that the society that lives there understands the criteria and are really able to participate in the decision-making process in order to diminish the stress that this situation is causing. The NEA has cumulative experience with this type of dialogue and I think that the role of the CRPPH is to convey this experience to Japan as a very important issue.

This accident has had implications for regulations around the world. We are analysing the implications of Fukushima Daiichi accident on the defence-in-depth and on the regulations of nuclear power plants. We have selected five areas of work: external events and new safety considerations, accident management, containment response, emergency response and crisis communication. Crisis communication is one of the five issues we have identified as key after Fukushima Daiichi: work is needed to improve public perception and knowledge about the implications of an accident.

The future of nuclear power depends on society's perception of the safety and for that, communication is very important. Having been a regulator myself for many years, I think communication from regulatory bodies is very important both during a crisis and any other kind of incident. The fact that regulators are independent and have many years of experience analysing nuclear safety is very important because I think that it could help society to really trust the messages regulators give.

As I said, the Fukushima Daiichi accident is not the best example of communication. The use of the international scale related to nuclear events of this scale was not well done. We are discussing this issue with the IAEA to try to improve, either the scale or the way in which it is implemented because it did not help during the accident.

It would be fantastic if I could say that this workshop is not needed because there will not be any more accidents, but we know that possibly in the future we will have to face accidents because nuclear power plants are made by humans and we make mistakes. I would like most accidents to be minor and nothing comparable to what happened in Chernobyl, Three Mile Island or Fukushima, but it is clear that you cannot wait until the moment when something happens to communicate. I think the importance of this workshop is to be prepared to organise from the very beginning, before things happen, the best way of communicating with the public.

Objectives of the workshop

Mr. Mike Weightman, HM Chief Inspector, ONR, United Kingdom, Chairman of the CNRA

The objective of the present workshop is to bring together senior level regulators and communication stakeholders in order to share experiences with an aim to identify efficient approaches and practices to improve the crisis communication of NROs, including taking into account the lessons learned after the Fukushima Daiichi accident.

During the workshop, we hope you will give your honest views on how nuclear regulators can improve and learn lessons. For us, the essential need to sustain high standards of nuclear safety and nuclear regulation is to always seek to improve and we can only do that in this context through your feedback and your help.

The CNRA Working Group on Public Communication was set up in 2000 as an outcome of a CNRA Workshop on Public Communication of Nuclear Regulatory Organisations (NRO). In 2011, just before the Fukushima Daiichi accident occurred, the WGPC had just prepared its "Road Map for Crisis Communication of NROs – national aspects" when the accident occurred. This accident highlighted the challenges for NRO crisis communication in case an event in one country has a media impact in other countries and noted that this international dimension was not adequately treated in the current communication strategies, in particular regarding the link between national communication and international communication, including the response to concerns from abroad created by misunderstandings (e. g. translation issues).

As the NEA Director-General mentioned before, this Workshop will be the follow-up of the three previous CNRA Workshops related to NRO communication in Paris, Ottawa and Tokyo.

The workshop brings together Senior Regulators, NRO staff in charge of Public Communication, other NRO staff involved in Crisis Communication, stakeholders from the civil society (local authorities, industry, NGOs, elected people) and representatives from the media, to learn how to improve communication after the Fukushima Daiichi accident.

Perhaps this accident highlighted especially the major challenges for nuclear regulatory authorities in crisis communication, when the impact of such accidents is global in media terms, social, political, economic, safety and regulatory terms. Our view is that we did not act sufficiently well in those circumstances, in particular with regard to the link between national and international communication, where there were perhaps some misunderstandings, different perceptions and needs on a national scale. We should consider that this is the age of instant communication on a global scale. It is against this background of changing societal norms that we as regulators have to change to continue to earn the trust of the public. Today is about that: how better can we serve the people we serve.

The expected outcomes are twofold: proposals for improvement in communication policies from the top regulators and proposals for improvement in communication practices from the WGPC members on an international scale. It is also about listening, discussing, debating to learn how to better communicate. There are some questions to think about: what is the role of independent NRO? Why should the public and others believe in the NRO and on what basis? Can independent NROs effectively communicate risks when risk perception is about values and beliefs? Are neutral NROs independent of the crisis when the political necessity perhaps is to communicate differently and on a different basis? What are the best ways to communicate? How do we balance local/national with international needs in a consistent manner? The essential question is: how can we better serve the people?

The format of this meeting is a two-day workshop consisting in eight sessions, each one chaired by a senior level regulator, including three to five interventions and followed by a discussion. The goal is to leave sufficient time for discussion and, with this in mind, two of the sessions will be arranged as panel sessions.

We are pleased to note the attendance from 28 countries and six international organisations, with not only nuclear regulators, but also members of parliament, several mayors, representatives from industry, members from NGOs, other stakeholders and representatives from the media.

We have taken advantage of the increasing international and web-based communications and the workshop is being web-streamed live with the aim to promote and to attract public and media interest better. It is not what we say that matters but what we do.

When I was in Japan, I admired the ability of the Japanese people to work together, to deal with circumstances that nobody could foresee happening before. This dedication and capability is what we should admire in such circumstances. NROs have a tremendous responsibility in the way we communicate with stakeholders and with the people we serve.

Before I finish let me thank as chairman of CNRA the big effort made by the working group on public communication to organise this meeting, and let me mention in particular three names, Ms. Yeonhee Hah, chair of the group and the programme committee, Ms. Marina Calvo, the Spanish contact to resolve all difficulties and Mr. Jean Gauvain, who is representing the NEA secretariat for this meeting.

Session 1

Key elements in NRO crisis communication

Chair: Dr. Jozsef Rónaky, Director-General, HAEA, Hungary

Co-ordinator: Ms. Elisabeth Besenyei, HAEA, Hungary

Speakers:

- Ms. Yeonhee Hah, Head of International Co-operation, KINS, Korea and Chair of the WGPC
- Dr. Liu Hua, Director-General of National Nuclear Safety Administration, People's Republic of China
- Mr. Eliot Brenner, Director of the Office of Public Affairs, NRC, United States
- Mr. Luis Arroyo, President, "Asesores de comunicación pública", Spain

The CNRA Road Map for crisis communication of nuclear regulators: challenges and implications for better preparedness

Ms. Yeonhee Hah, Head of International Co-operation,
KINS, Korea, Chair of the WGPC

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5. Challenges for better Preparedness
6. Closing Remarks

Introduction

Committee on Nuclear Regulatory Activities (CNRA)

Working Group on Public Communication (WGPC)

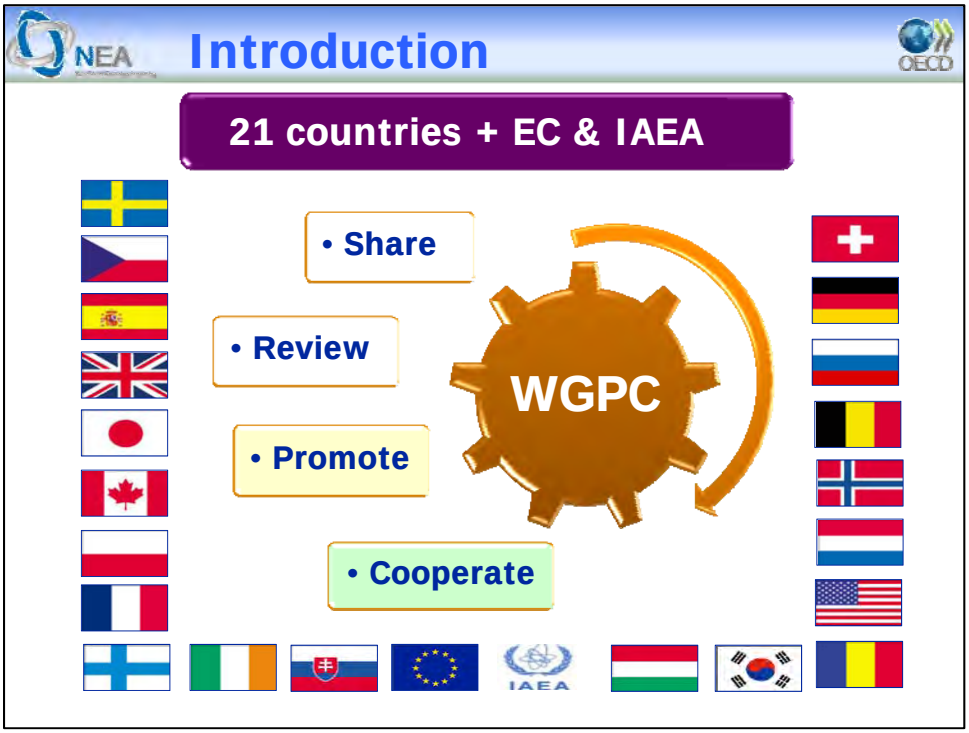
OBJECTIVE

Support for public communication of Nuclear Regulatory Organizations

Methods of Working
- Annual meetings
- Writing documents
- Reports to CNRA
- Organization of workshops

On-going System
"Flashnews"

WGPC Programme of Work
- Transparency of regulatory activity (2007~2010)
- Information of local public (2008~2010)
- Survey on public perception (2008~2010)
- Crisis Communication (2009~)
- Use of Internet & Social Media (2011~)
- Communication Plans (2012~)


Introduction
21 countries + EC & IAEA
• Share
• Review
• Promote
• Cooperate
WGPC
IAEA


Introduction
5

Introduction

6

Current WGPC Program of Work

- Transparency of regulatory activity (2007~2010)
- Information of local public (2008~2010)
- Survey on public perception (2008~2010)
- Crisis Communication (2009~)
- Use of Internet & Social Media (2011~)
- Communication Plans (2012~)

Crisis Communication

- Surveyed 17 countries (2010)
  → Actions, timing, message, channel, etc.
- Led by Spain, Japan, Norway, Sweden
- Produced CNRA Report(2011)
  "Road Map for Crisis Communication of Nuclear Regulatory Organizations"

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Main Findings

1. **Three phases**
   Specific actions during pre, on-going, post crisis
2. **"The sooner, The better"**
   React within 2 hours
3. **NRO, reliable primary source**
   Offer information and technical advice
4. **Initial press alerts**
   Followed by media briefings, interviews, websites
5. **Pre-drafted messages**
   Expedite Crisis Communication
6. **New media (facebook, twitter, blog)**
   Recognize the potential

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Main Findings

7. **Trained spokesman, contingency plans**
   Need to support crisis communication better
8. **Accuracy of the information**
   Avoid confusion and increase credibility
9. **Well-defined emergency organization**
   Provide consistent information among them
10. **Self-assessment, evaluation, lessons learned**
    Involve in emergency drills and media training for transparency, communication, coordination

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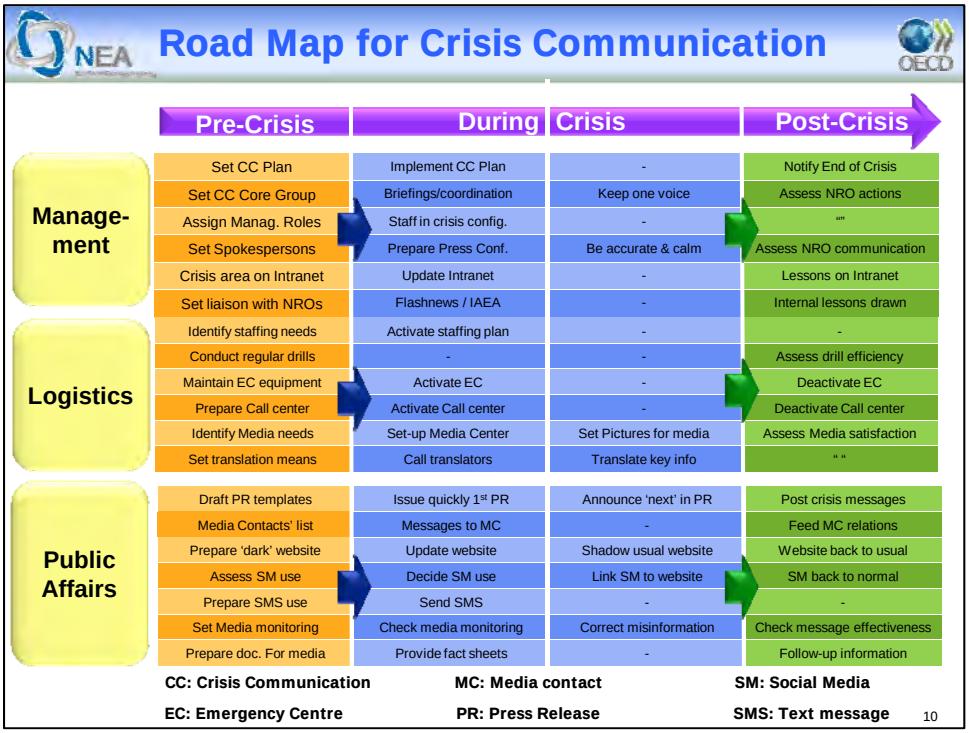
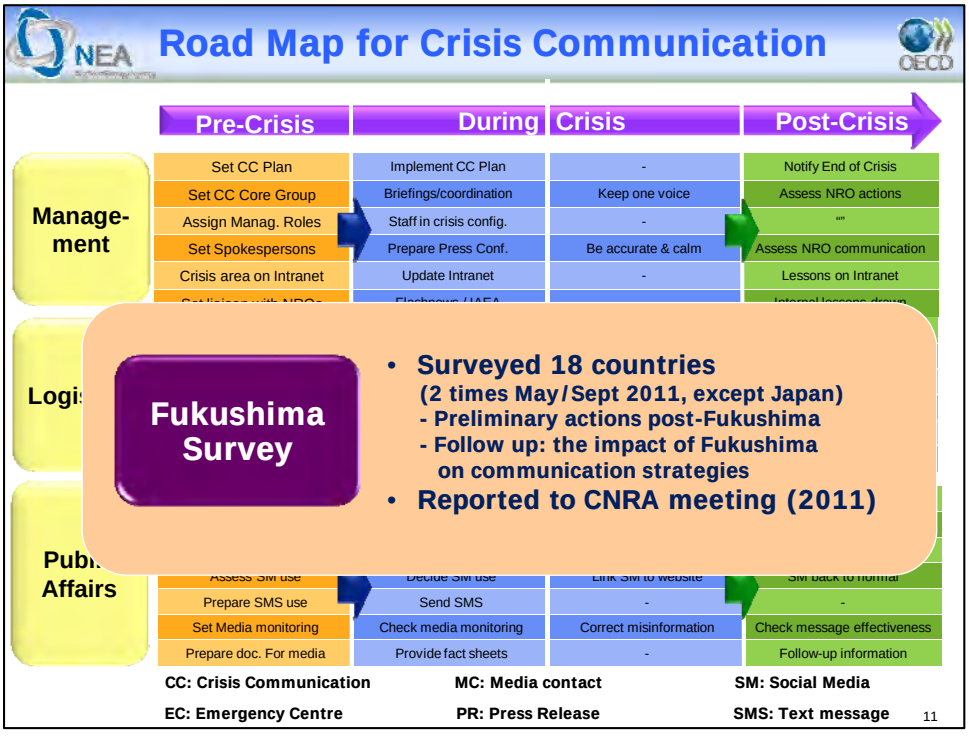

Road Map for Crisis Communication
Pre-Crisis
During Crisis
Post-Crisis
Manage-ment
Set CC Plan
Implement CC Plan
-
Notify End of Crisis
Set CC Core Group
Briefings/coordination
Keep one voice
Assess NRO actions
Assign Manag. Roles
Staff in crisis config.
-
""
Set Spokespersons
Prepare Press Conf.
Be accurate & calm
Assess NRO communication
Crisis area on Intranet
Update Intranet
-
Lessons on Intranet
Set liaison with NROs
Flashnews / IAEA
-
Internal lessons drawn
Logistics
Identify staffing needs
Activate staffing plan
-
-
Conduct regular drills
-
-
Assess drill efficiency
Maintain EC equipment
Activate EC
-
Deactivate EC
Prepare Call center
Activate Call center
-
Deactivate Call center
Public Affairs
Identify Media needs
Set-up Media Center
Set Pictures for media
Assess Media satisfaction
Set translation means
Call translators
Translate key info
" "
Draft PR templates
Issue quickly 1st PR
Announce 'next' in PR
Post crisis messages
Media Contacts' list
Messages to MC
-
Feed MC relations
Prepare 'dark' website
Update website
Shadow usual website
Website back to usual
Assess SM use
Decide SM use
Link SM to website
SM back to normal
Prepare SMS use
Send SMS
-
-
Set Media monitoring
Check media monitoring
Correct misinformation
Check message effectiveness
Prepare doc. For media
Provide fact sheets
-
Follow-up information
CC: Crisis Communication
MC: Media contact
SM: Social Media
EC: Emergency Centre
PR: Press Release
SMS: Text message
10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Update Intranet
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Lessons on Intranet
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Affairs
Prepare SMS use
Send SMS
-
-
Set Media monitoring
Check media monitoring
Correct misinformation
Check message effectiveness
Prepare doc. For media
Provide fact sheets
-
Follow-up information
Fukushima Survey
• Surveyed 18 countries
(2 times May/Sept 2011, except Japan)
- Preliminary actions post-Fukushima
- Follow up: the impact of Fukushima on communication strategies
• Reported to CNRA meeting (2011)
CC: Crisis Communication
MC: Media contact
SM: Social Media
EC: Emergency Centre
PR: Press Release
SMS: Text message
11

Road Map for Crisis Communication

1. What we prepare before crisis?

Management Level	Logistics	Public Affairs Office
Establish CC Plan	Identify Staffing Needs	Prepare PR templates
Define the command line	Conduct Regular Drills	Update Media Contacts' list
Designate Spokesmen	Maintain EC Equipment	Prepare "dark" Websites
List a roster of Technical Experts	Prepare Call Center	Open SM Accounts
Intranet: Set Crisis Management area	Identify Media Needs	Prepare SMS Use
List up NROs and Stakeholder Contacts	Set Translation Means	Set Media Monitoring

CC: Crisis Communication
EC: Emergency Centre
MC: Media Contact
PR: Press Release
SM: Social Media
SMS: Text Message

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Road Map for Crisis Communication

2. What we are doing during crisis?

Management Level	Logistics	Public Affairs Office
Implement CC Plan	Activate Staffing Plan	Issue Quickly 1st PR
Briefings/ coordination	Activate EC	Messages to MC
Reschedule daily work	Activate Call Center	Update Website
Press Conferences	Set-up Media Center	Decide SM use
Update Intranet	Call Translators	Send SMS
Flashnews / IAEA ENAC	Arrange Press Pools	Check Media Monitor

CC: Crisis Communication
EC: Emergency Centre
MC: Media Contact
PR: Press Release
SM: Social Media
SMS: Text Message

13

Road Map for Crisis Communication

3. What will we do after crisis?

Management Level	Logistics	Public Affairs Office
Notify End of Crisis	Assess drill efficiency	Post crisis messages
Analysis NRO actions	Deactivate EC	Establish Good MC Relations
Follow-up Interviews	Deactivate Call Center	Website back to usual
Assess NRO communication	Assess Media satisfaction	SM back to normal
Lessons on Intranet	Evaluate the tools	Evaluate message effectiveness
Internal lessons drawn	Self-assessment Exercise	Distribute more information to MC

CC: Crisis Communication
EC: Emergency Centre
MC: Media Contact
PR: Press Release
SM: Social Media
SMS: Text Message

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Challenges for better Preparedness

Efficient preparedness and anticipation of the demands make better communication!

15


NEA
Closing
OECD
With a good roadmap, we never get lost
Thank you for your attention.

The practice of public communication of nuclear safety regulator in China

Dr. Liu Hua, Director-General of National Nuclear Safety Administration, People's Republic of China

国家核安全局
National Nuclear Safety Administration

Contents

- Introduction
- Public Communication during emergency response to Fukushima accident
- Future improvements
- Conclusion

2

国家核安全局
National Nuclear Safety Administration

1 Introduction

- The public were paying more attention to information of nuclear and radiation safety after Fukushima accident.
- Related knowledge of the public is very limited and the public opinions on nuclear energy are changing.
- The public needs quick, transparent and accuracy information from the nuclear safety regulator.

3

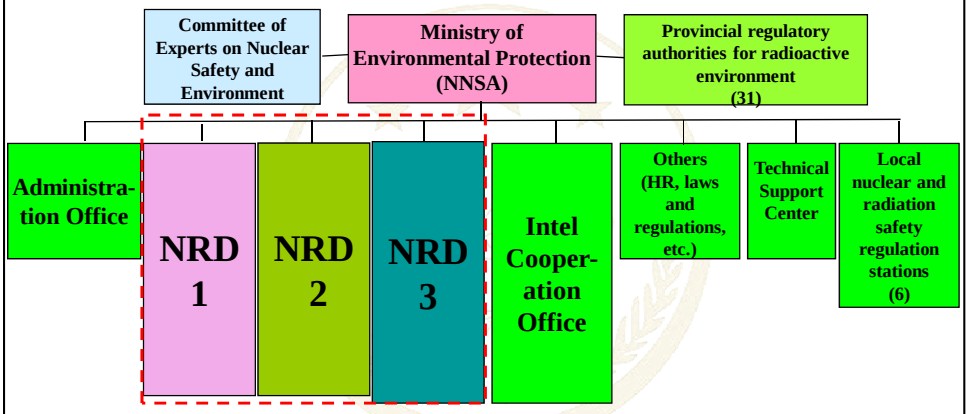
国家核安全局
National Nuclear Safety Administration

Nuclear Safety Regulator in China

- National Nuclear Safety Administration (NNSA) is regulator.
- NNSA is an administration in Ministry of Environmental Protection. One vice minister is the administrator of NNSA.
- NNSA reports to the premier through MEP.
- NNSA consists of headquarter, six regional inspection offices, and TSO.

4

Current Framework of Nuclear and Radiation Safety in China



5

国家核安全局 National Nuclear Safety Administration

NNSA Staff and Budget

- **NNSA Staffing:**

-- Headquarter: 3 technical departments, 85 persons
-- Six Regional offices: 331 inspectors
-- TSO: NSC, 600 persons
Radiological Monitoring Center: 100 persons

- **Regular Budget in 2011: RMB 220 million**
in 2012: RMB 350 million

6

国家核安全局 National Nuclear Safety Administration

2 Public Communication during emergency response to Fukushima accident

- During Fukushima accident, NNSA use traditional media and website
  - to publish radiological monitoring data
  - to provide information of accident status
  - to disseminate basic knowledge on nuclear and radiation safety.
  - to establish rules on public information

7

国家核安全局 National Nuclear Safety Administration

2.1 Publish radiological monitoring data

- **To conductγ dose rate continuous monitoring, γ spectrometry analysis of artificial radioactivity of aerosol, iodine in air , soil samples, water samples, dry/wet deposition, and biological samples in whole country**
- **To publish monitoring data on CCTV every day from March to June 2011.**
- **To publish γdose rate, iodine in air etc in 31 provinces and 3 operating NPPs every day on the website of NNSA since March 2011.**

8

国家核安全局 National Nuclear Safety Administration

2.2 Provide information of accident status

- On official website of NNSA
  - 121 news releases on accident status and radiological consequences
  - 78 translated reports of NISA on accident
- On CCTV and other TV stations
  - Progress and status of accident status
  - Explanations of technical expertes on accident status and radiological consequences

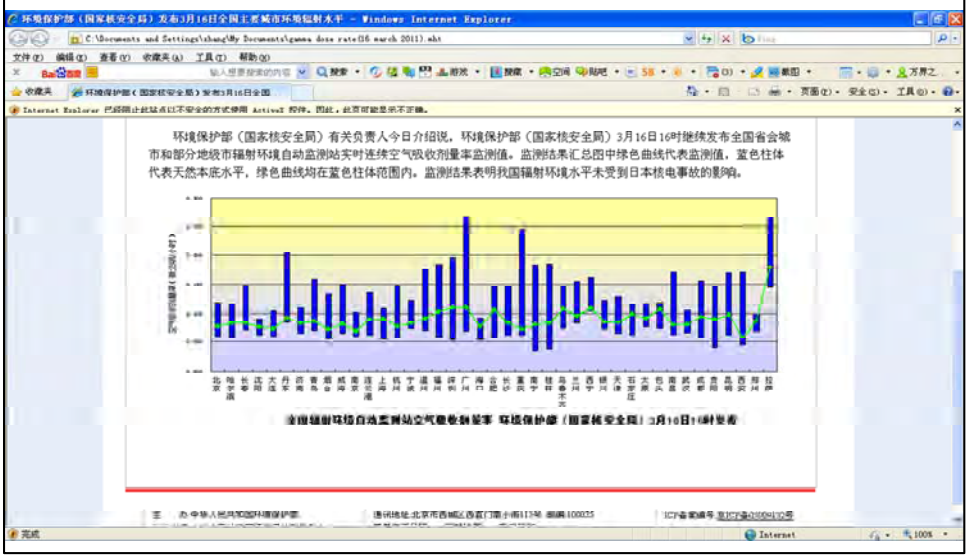
9

国家核安全局
National Nuclear Safety Administration

NNSA website on Fukushima nuclear accident

国家核安全局
National Nuclear Safety Administration

γ dose rate in different cities in China



国家核安全局
National Nuclear Safety Administration

γ dose rate in different cities in China

全国辐射环境自动监测站空气吸收剂量率（2012年4月22日9:00 - 2012年4月23日9:00）

2012-04-23

（2012年4月22日9:00 - 2012年4月23日9:00）

单位：nGy/h

地点	测值范围	平均值	参考本底范围（当地原野）	结论
北京市	77.2-80.7	79.1	60.2 -119.9	正常水平
哈尔滨市	65.8-84.0	73.5	57.6-117.1	正常水平
长春市	67.9-79.8	72.5	70.9-147.4	正常水平
沈阳市	69.2-81.4	76.3	61.6-91.2	正常水平
济南市	83.4-85.3	84.6	65.0-110.4	正常水平
南京市	67.4-71.9	69.5	64.9-102.1	正常水平
上海市	90.8-92.4	91.6	54.9-108.2	正常水平
杭州市	67.4-78.1	73.8	56.8-148.2	正常水平
福州市	108.0-110.4	108.9	59.0-184.8	正常水平
广州市	107.4-110.4	108.9	69.3 -266.9	正常水平
湛江市	75.6-76.8	76.2	63.5 -92.2	正常水平

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National Nuclear Safety Administration

γ dose rate around operating NPPs

中华人民共和国环境保护部
Ministry of Environmental Protection of the People's Republic of China

您现在的位置：首页 > 核安全管理司（辐射安全管理司） > 动态信息

我国运行核电站周围环境空气吸收剂量率（2011年3月23日24:00 - 24日03:00）

2011-03-24

（2011年3月23日24:00 - 24日03:00）

单位：nGy/h

核电站	点位	测值范围	平均值	运行前本底范围（当地原野）	结论
秦山	秦山山顶	100.3-100.6	100.4	70.4 - 123.8	正常水平
	夏家湾	95.5-95.9	95.7	70.4 - 123.8	正常水平
	秦山镇	99.4-99.6	99.5	70.4 - 123.8	正常水平
	二期码头	91.8-92.5	92.1	70.4 - 123.8	正常水平
	新厂	98.6-99.1	98.8	70.4 - 123.8	正常水平

国家核安全局
National Nuclear Safety Administration

2.3 Disseminate basic knowledge of nuclear and radiation safety

- 20 articles on nuclear safety in website of NNSA
- 1 brochure on basic information of nuclear safety
- Reports on nuclear safety examination on TV
- Reports on Safety of NPPs and expertes interview on TV and newspaper
- Communicate with public, especially university students

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国家核安全局
National Nuclear Safety Administration

99 Questions of Nuclear safety and Radiation Protection

15

国家核安全局 National Nuclear Safety Administration

2.4 Establish rules on public information

- *NNSA issued Rule on Public Information on Nuclear Safety of NPPs in April 2011.*
  - NPP and NNSA should publish information on incidents or accidents above grade 1 of INSE in time.
  - NPP and NNSA should publish information on events in grade 0 if the public interested.
  - NPPs will publish the status of NPPs periodically, and disseminate nuclear safety to the public.

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国家核安全局 National Nuclear Safety Administration

Public communications activities

- NNSA held Meeting on nuclear safety between the Mainland and Hongkong in April 2011
- NNSA required Daya Bay NPP to provide information on operation and events to Guangdong province and Hongkong.
- Guangdong province and Hongkong established information exchange on events and monitoring data

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国家核安全局
National Nuclear Safety Administration

Meeting on nuclear safety
between the Mainland and Hongkong on 20, April 2011

国家核安全局
National Nuclear Safety Administration

3 Future Improvements

NNSA will further improve its public information communication by:

- To establish working team in NNSA on public information and communication. The function:
  - To collect, analyze, and evaluate information
  - To provide quick, transparent and curacy information to the public, and
  - To push forward public dissemination.

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国家核安全局
National Nuclear Safety Administration

3 Future Improvements

- To request the operating organization to strengthen the public communication.
- To establish information exchange with nuclear operating organization on public communication and dissemination.

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国家核安全局
National Nuclear Safety Administration

3 Future Improvements

- To conduct public dissemination, such as
  - Basic knowledge in Internet website
  - Training course and workshop to media people
  - Training course to NNSA spokesman
  - To develop easy understanding and vivid reading materials and TV program.
  - Site visit to nuclear facilities.

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National Nuclear Safety Administration

Conclusion

- New challenges to nuclear regulators in the world afte Fukushima accident.
- The public confidence and communication become more and more important for both regulator and nuclear operator.
- NNSA is taking efforts to improve its public communication in China.

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Using social media to leverage crisis communication

Mr. Eliot Brenner, Director of the Office
of Public Affairs, NRC, United States

NEA on NRO Crisis Communications

- "One of the challenges observed by most NROs is that the reaction time in terms of communications does not always depend on the national regulator. New channels, like social media, have increased the difficulty for NROs to manage crisis communications quickly and accurately."

2

Evolution of Social Media

Internet became the currency of information in the early 1990s.

ITU estimates 1/3rd of world is using the internet. 45 % under age 25

3

Communications is changing

- 6 billion mobile-cellular subscriptions, smartphone use rising rapidly Teletype/Fax/Web Page/SM
- SM changing how we communicate
- Social Media now widely accepted communications form

4

Social Media Growth

SM statistics: 845 million Facebook accounts 2/12; 200 million Twitter users, 1B tweets per week, 40 percent from mobile device, up 180% in a year

Bandwith use is rising rapidly

5

Social Media Use within NEA

- At the time of the December 2011 WGPC meeting members were in large measure still going slowly in social media
- All nations used internet during Fukushima crisis.
- Social media use in crisis was mixed – some heavily involved, others to some degree and some not at all.

6

Social Media use by NEA NROs

- However, a post-Fukushima survey indicated many nations are looking at broadening their social media use or have already done so
- For example, the U.S. NRC has begun using a number of additional social media outlets.

7

Social Media use by NEA NROs

- Facebook – France, Finland, Sweden
- Dedicated web page – France (U.S. had a dedicated area on web page)
- Twitter – France, Sweden, Spain
- Dailymotion – France
- Dedicated newsletter – France
- Blog – U.S.
- Web meetings – Norway
- Chats -- Sweden

8

U.S. Experience March 11-12, 2011

- First press release/First blog post – “NRC Monitoring Earthquake and Tsunami”
- Saturday: Two more blogs Saturday and then a press release: “NRC experts deploy to Japan with USAID

9

March 13-14-15, 2011

- Reports of explosions – citizen concerns rise dramatically
- Two more blogs: No harmful radiation to U.S./Plants in U.S. very robust
- NRC Chairman Jaczko speaks at President's White House Press Room
- Blog visitors soar to 5,000 a day; comments guide Public Affairs communication products

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Wednesday March 16

- NRC recommends to Embassy Tokyo that U.S. citizens evacuate 50 miles around Fukushima.
- Blog comments keep rising; commenter writes: "have found the information you have provided as VERY helpful."
- Misinformation abounds: Blog post – "**Don't Believe Everything You Read"**
- Blog a very flexible and speedy tool for U.S. NRC

11

Feed back from the French NRO (ASN)

- Extensive use of Social Media during the Fukushima accident
- Dedicated web site
- Facebook – 90 postings
- Twitter – 91 tweets
- Dailymotion (like YouTube) – 52 videos / almost 65,000 views
- Newsletter – 4,300 subscribers
- About 300 messages received through email and Facebook.

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Thoughts, Points for Discussion

- Social media is becoming an increasingly common way to communicate
- It is faster than traditional methods of communication
- Retweeting or relaying by others multiplies impact

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Thoughts and Discussion

- Social media is less formal, requiring less management oversight
- Social media cannot entirely replace traditional press release
- Crisis raises media interest. News media monitors Social Media closely. Monitoring by NRO necessary too.
- Social media can spread misinformation

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Thoughts and Discussion

- Blogs and Tweets offer important way to respond rapidly and gain “traction” for your message.
- Challenge – Social media can require additional staff resources/or a decision by managers of what to leave unaccomplished.
- Lesson – NROs should include additional Social Media in Crisis Communication Plans. Understand what it requires.

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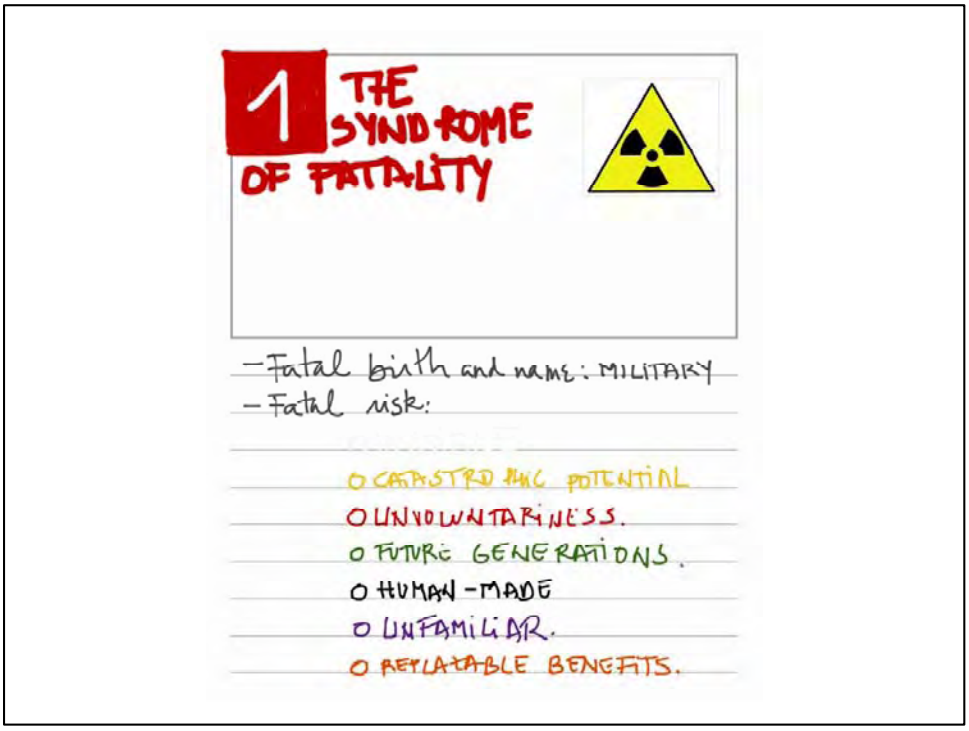
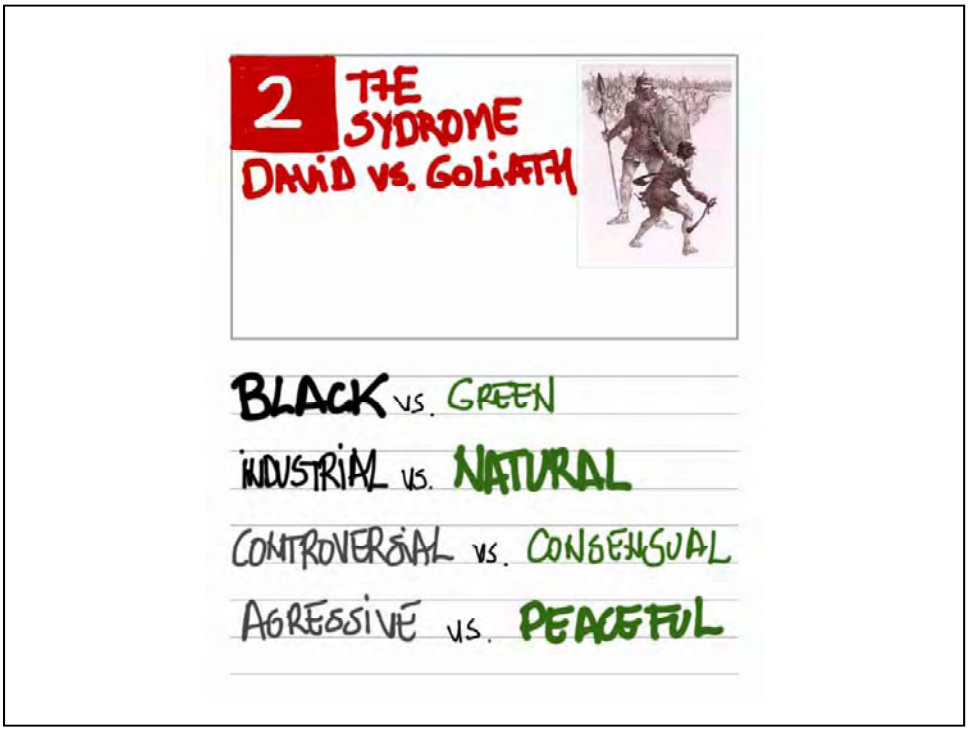
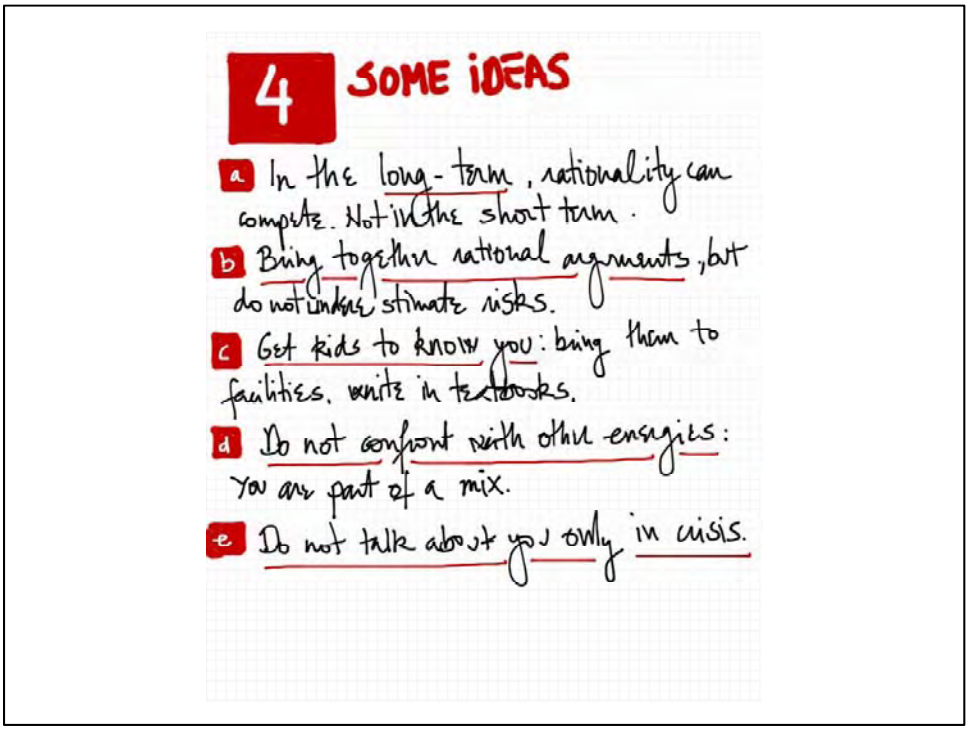
The syndromes of crisis communication in the nuclear sector

Mr. Luis Arroyo, President, “Asesores de comunicación pública”, Spain


1 THE SYNDROME OF FATALITY
-Fatal birth and name: MILITARY
-Fatal risk:
O CATASTROPHIC POTENTIAL
O UNVOLUNTARINESS.
O FUTURE GENERATIONS.
O HUMAN-MADE
O UNFAMILIAR.
O REPLACABLE BENEFITS.


2 THE SYDROME DAVID VS. GOLIATH
BLACK VS. GREEN
INDUSTRIAL VS. NATURAL
CONTROVERSIAL VS. CONSENSUAL
AGRESSIVE VS. PEACEFUL


3 THE SYNDROME OF FRAMING


4 SOME IDEAS
a In the long-term, rationality can compete. Not in the short term.
b Bring together rational arguments, but do not underestimate risks.
c Get kids to know you: bring them to facilities, write in textbooks.
d Do not confront with other energies: you are part of a mix.
e Do not talk about you only in crisis.


g Bring environmentalists and progressives publicly to your side.
g Why always on the defensive? Consider advertising.
h Soften and refashion your materials:
– More people, visible outputs, soften ideas and lines.
– New words, stories.
– Friendly spokespersons not only saying SORRY!
i Take your time. This goes slowly.


BOOKS and disclaimer
THINKING FAST—SLOW
DANIEL KAHNEMAN
2011
RISK
THE SCIENCE AND POLITICS OF FEAR
2008
WORDS THAT WORK
2006
2004
El poder político en escena
2012
JUST MY VIEW!! NOT THE HOST'S
LUISARROYO.COM

Summary of discussion for Session 1

Prepared by the Secretariat

Question 1: *A Communication Road Map is an important element of crisis communication. How to develop a crisis communication plan, e.g. mapping of stakeholders and messages, evaluation of the effectiveness of communication? Is it to be considered in the Road Map? What is your view?*

Ms. Hah: Every country has similar experiences and difficulties and has different stakeholders. One of the most important parts when you start to develop the communication plan is to identify stakeholders' needs. Before a crisis, it is important to maintain an updated list of stakeholders and also accommodate their requests and needs in advance. You can develop your own tool to identify stakeholders' needs. Each country is faced with different challenges and a different public. It is important to get feedback from stakeholders. Different messages will be produced to better meet stakeholders' expectations, different channels can be used to reach them. In some countries, small meetings with stakeholders are held regularly to learn from them. Even in this workshop, there is a special session to listen to stakeholders: what they expect and what needs to be developed for a better communication plan.

Question 2: *How does the public react to the gamma dose publication on the website and how do you address their questions and worries?*

Mr. Hua: This is the first time in China that the government has released information on the website. In the beginning, the general public did not understand what it meant and did not know if it was real information. Firstly, we organised technical experts to give explanations on central TV programmes and used very easy language to let people know that radioactivity is a common aspect in our work. We compared radiation released from the accident with radiation in aviation, medical applications, medical examinations and diagnostics, cosmic rays and radiation from the earth. We let the people know this general information.

We also published our historical data from the past years and we continue to publish monitoring data from March last year every day.

Question 3: *Social media: how do you assess the advantages and disadvantages of a blog in comparison to a dedicated site on Facebook*

(since both are tools for two-way communication)?

Mr. Brenner: At the NRC, the first thing was to have an information technology team look at Facebook from the perspective of maintaining security of information systems. The government is always very careful on how this connects with external websites. Comparing Facebook vs. blog: A blog is a monitored and mediated platform. If we propose to talk about a particular topic and most things are irrelevant, we can focus on what we want to talk and deal with other issues later. On Facebook, there can be an unfiltered discussion. It could happen that you cannot effectively get your message out. If the

incoming contributions are overwhelming, you cannot address your message. I tend to prefer the blog because it provides flexibility and speed and it does not necessarily take as many resources to monitor and respond to than Facebook.

Question 4: *Social media are good to have very proactive and rapid communication, but they might be misguided by wrong information. How to redirect such misleading information the right way?*

Mr. Brenner: There is a need to monitor social media, particularly Twitter. There are computer programmes that allow you to see what is being said on twitter about your organisation. You need to pay attention to who is saying what so that if it is inaccurate, you can correct it quickly. One of the blog posts referred to in my presentation had to do with a story produced by a news organisation on a screening study on the increased slight risk of earthquakes in the US. This story attempted to rank plants in terms of risks. We wrote a blog to say that we disagree with this particular story and this had some impact on news coverage. We also have another episode of a fake map being produced which showed a band of radiation going to US and it looked official. We mentioned that in the blog and we did some aggressive reaching out to news media and private citizens who had brought that to our attention. I got in touch with a person to tell her she was the victim of a hoax. She then sent all this info to all social media sites. One phone call had an impact in demonstrating that there was no accuracy with the map.

Question 5: *Thank you for your comprehensive presentation on social media. Social media is one communication tool that has "pros" and "cons". What "cons" do you think of? A combination of tools is also important.*

Mr. Brenner: Social media is a supplement to but not a substitute for our traditional methods for communication. I consider it a “force multiplier” in getting your message out and noticed by people. The pro of social media is the speed; the con of social media is the speed. The con is also misinformation. You need to be proactive rather than reactive. As a communicator, if you are trying to respond something, you are behind.

Question 6: *Can you tell me something about the resources (persons) needed to comply with social media? Is it a 24/7 approach?*

Mr. Brenner: Our business has been 24/7. Our office responds when and where we get queries. If we need to use social media in the middle of the night, we will do that. In terms of resources, we have six professionals and one of them spends a significant amount of time working on issues such as YouTube, producing video scripts. Another person devotes time managing these videos. A temporary employee assists with screening and posting Flickr images. I expect in the future to have a low to mid- level position dedicated entirely to processing social media. At the NRC we recognise that we must be a player in social media with adequate resources. Additionally, we have eight staff members around the country in different regional offices. Regional staff members work constantly to produce blog posts on the NRC website.

Web Question 7: *I would like to know why communication is not enough inside institutions. Don’t you think engineers need to have some communication knowledge? Should journalists receive more serious and specific information about nuclear?*

Mr. Arroyo: I would not say that engineers need communication training because they are engineers, but public officials should have communications training. It is a matter for people who work to defend the public interest.

Mr. Rónaky: In Hungary, we co-operate with the technical journalists association.

Mr. Brenner: Every several years, the NRC puts together what is called "reactors 101" and we invite senior policy experts and journalists to get educated on the technical side and on the policy side. It is of great benefit to get journalists in nuclear plants. It is a great benefit to get local journalists in a nuclear plant. Journalists could phone a resident inspector and get the information directly.

Mr. Hua: Before Fukushima, China's NRO did not pay attention to communication with media, because the organisation is very limited. After Fukushima, we held a workshop with the media and organised a visit to an NPP. We used easy language and it was very useful.

Ms. Hah: In a crisis communication plan, the media are a really important player. We need to get them involved and have a better understanding of events (magnitude and consequences). Before the crisis, we should invite them to meet and get a better understanding of nuclear issues.

Mr. Arroyo: My perception is that the nuclear sector has been doing the necessary things, but also the obvious things (spokespersons, relationships with journalists, etc.). It is probably trying to engage with prescriptions that are critical to the nuclear sector, but I think that it is needed, trying to engage with politicians who are not necessarily on one side of spectrum, trying to bring third party endorsements from people that are not so obviously for nuclear…to try to enhance the reputation of the sector in the long-term rather than in the short-term.

Dr. Rónaky: I will now invite the media to give an opinion on the following question: should journalists receive more serious and specific information about nuclear issues?

Mr. Crawford: (Wall Street Journal): Crisis communication is too late to deal with the problem. You need to have efficient communication before, working with journalists and inviting them to facilities, building up trust and opening doors. Most regulators have an opposite approach: they are afraid of open doors. There is nothing that the NRO does that is a secret. If you are waiting until the crisis starts, it is too late, you have already made a mistake.

Mr. Cho: There is a dilemma in a training or education programme for the media. If a program is prepared beforehand, the media are not interested because they are too busy. When things happen, there is no time to learn. If journalists trust the trainer, then they may participate in any kind of activities, but if not, they only participate in meetings that give them a chance to write.

Ms. Montano (TVE): Communication has to have two speeds: on the one hand, contacts, on the other hand, the training of specialist journalists; but when a crisis occurs, like Fukushima, information does not only fall into the hands of experts or specialists. There is global communication and there is a huge need of information for hours, weeks and then, information is no longer in the hands of journalists or specialists, but in the hands of other journalists who might gather information and work through the news needs of the company they work for. In crisis communication, information goes further than the pages of science in journals or specialised magazines. In the media, we could also differentiate between good and bad. The former is sensationalist, not rigorous enough, whilst the latter is more rigorous and not biased. Continuous training is important, but when an event such as Fukushima takes place, not a lot can be done about this situation.

Web Question 8: *I would be interested in hearing what the panel thinks about the issue of "regulatory capture". Is it a real problem and if so, how do you manage it? Is it a matter of perception and is it something the regulators think about or worry about?*

Mr. Brenner: Regulatory capture is a matter of perception. One of the things that the NRC strives for is to reach decisions on its own schedule based solely on answering appropriate safety questions. Regulatory capture is a perception among many that the

regulator is too close to the regulated body. The NRC does not work to reach a goal sought by the industry, but to reach a decision based exclusively on asking and answering the right safety questions. We strive to keep an arm's length and focus only on safety.

Mr. Arroyo: I would like to know how many of you are in favour, against or neutral about nuclear energy. I understand that journalists know whom they are talking to when they talk to someone from the nuclear sector. Probably most of the people working on the nuclear sector know each other because they come from the same university, etc. We cannot avoid the emotional perception that those in the nuclear sector are more in favour of nuclear energy than against it.

Question 9: *Mr. Redoli (CSN): To my understanding, we are going through an emotional* issue rather than rational. Then, there is a lot of politics and emotions on how to communicate nuclear risk and safety. How do we transform an emotional issue into a rational issue, if possible?

Ms. Hah: I would like to go back to the question of regulatory capture. The role of the regulator is to ensure public safety and protect the environment. We have different ideas and different perspectives reflecting our role as a regulator, as the media and as the public. Before the crisis, the media are not interested in learning from NROs. But in the post-crisis situation, there will be more interest in the regulators, if we provide a chance. It is our time to get the media involved and reduce the gap identified during the Fukushima accident.

Mr. Wilkinson (with environmental committee): We have to agree that there is a general perception in the public that there is a close tie between regulators and industry. In the UK, most personnel from the regulator are drawn from the nuclear industry, it is a natural progression. The perception from the public is that they are too close. Regulatory tasks sometimes are perceived as coming secondary; the first job is trying to get the policy ahead. On the other hand, if you control information that you can put in the public domain you can put as much information as you want. During Fukushima, information that was out in the UK was nonsense. Other sources (NGOs) became very important for people because they provided alternative views. Often the information from the regulator is hardly contested and there is no mechanism by which you can bring that information into the public domain and still be credible. This is where the problem lies. What we are talking about here is crisis management and not crisis communication.

Question 10: *Trust in the NROs is key. Fukushima demonstrated mistrust in regulators even from other regulators.*

Ms. Hah: WGPC conducted a survey to identify future actions undertaken in the countries after Fukushima. Trust in nuclear regulators is key. The Fukushima accident is the first accident in the era of internet and social media. The globalised impact was so quick and it was difficult to get information from Japan. Another challenge was also to provide information coming in from other languages. In order to maintain public trust, we need to think internationally and prepare globally. The information NROs provide can reach everybody. One country's problem can be our problem. After Fukushima, we learned that we need to co-operate.

Question 11: *How do responsible organisations change focus from technical information to communication on guidance/advice for the population? Direct answers on questions like "what is dangerous?", "what actions are most necessary". Actually, how to change focus from technical to guiding and advice or another way to say it, how do you change focus from what you want to say to focus on what information people need to handle the crisis situation?*

Mr. Brenner: There are two different types of communication in a crisis of this nature: technical (technical experts talk to one another and between national regulators) and public focused communication (affects the communication team and they have to decide

how best to present information about risk; they interface with the technical people, but there is a lot of risk communication involved).

Question 12: *Could you comment on the German and Swiss crisis communication (leaving the nuclear energy with time)? What is the impact on other NROs' communication efforts? (i.e. decreasing the trust of the public)?*

Mr. Brenner: Every nation is free to make its own decisions and it is not my place to make judgements about the decisions of others.

Mr. Arroyo: We are so global that everything that happens in a country affects others. It is a good idea for NROs to join forces and discuss challenges.

Question 13: *How do you co-ordinate and manage public information with other emergency agencies? In the case of Fukushima, do you co-ordinate information with UN Organisations from Human Aid?*

Ms. Hah: We co-ordinate and manage public information with other agencies. It is important to deliver clear and consistent message to the public. The co-operation among national authorities involved in emergency preparedness is important. Many NROs have had difficulties to activate their national emergency systems in the beginning. In many countries, the role of different organisations should be clearly defined to deliver key messages with a single voice to the public.

In summary

1. The Road Map is very useful and helps build-up and monitor preparedness for a crisis.
2. Communication plans should take into account emotional needs.
3. Social media is part of the future of communication, but can be questioned in crisis situations.
4. Trust is important and should be maintained during crisis situations.
5. Co-ordination among the emergency agencies in a country is crucial.
6. It is important to present technical information in understandable language.
7. Educating journalists in the nuclear domain is difficult as they have no time.
8. Educating technical experts in communication is important.

Session 2

Lessons learned in NRO communication from past crises

Chair: Dr. Gregory Jaczko, Chairman of the US NRC, United States

Co-ordinator: Mr. Eliot Brenner, US NRC, United States

Speakers:

- Mr. Makoto Watanabe, Public Relations Officer, NISA, Japan
- Dr. S.S. Bajaj, Chairman, AERB, India
- Ms. Marina Calvo, Communication Advisor, CSN, Spain
- Dr. Ann McGarry, Chief Executive, RPII, Ireland, Chair of the CRPPH

NISA's lessons learned from the accident at TEPCO's Fukushima nuclear power stations

Mr. Makoto Watanabe, Public Relations Officer, NISA, Japan

OECD Workshop on Crisis Communication
Session 2: Presentation by the Nuclear and Industrial Safety Agency (NISA)

NISA's Lessons Learned from the Accident at TEPCO's Fukushima Nuclear Power Stations

9 May 2012

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Director, Fukushima Region Nuclear Safety Administrative Office
NISA

Contents

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1. Overview of the Accident at TEPCO's Fukushima Dai-ichi NPS

Occurrence of the Nuclear Emergency

	Unit 1	Unit 2	Unit 3	Unit 4	Unit 5	Unit 6
March 11	**Earthquake Occurrence (14:46)**					
	Automatic shutdown (14:47)			(Under periodic inspection)		
	❍ Emergency DG activated (both DGs) (14:47) ❍ Emergency condenser activated (14:52) ❍ PCV spray system activated (15:07, 15:10)	❍ Emergency DG activated (both DGs) (14:48) ❍ Reactor core isolation cooling system activated (14:50) ❍ Safety relief valves actuated (14:52) ❍ Residual heat removal system pumps activated (around 15:00)	❍ Emergency DG activated (both DGs) (14:48) ❍ Reactor core isolation cooling system activated (15:05, 16:03)	❍ Emergency DG activated (1 DG, other DG under inspection)	❍ Emergency DG activated (both DGs) (14:48, 14:49)	❍ Emergency DG activated (all 3 DGs) (14:48 (1 DG), 14:49 (2 DGs))
	First tsunami wave hits [height 4m] (15:27), second tsunami wave hits [inundation height 15m] (15:35)					
	❍ Confirmed loss of all AC power supply (15:37) (Due to the tsunami, the seawater cooling system, switchboards and other power supply systems submerged, and also the emergency DGs lost functions)				❍ Power supply from emergency DG of unit 6	❍ Emergency DG (air cooling type) continued operation
March 12 and later	❍ All emergency cooling equipments stopped ❍ Water levels in the reactors fell ❍ Reactor core damage and melt started ❍ Hydrogen explosions in reactor buildings			❍ Explosion in reactor building	❍ Cold shutdown of reactors	

Emergency equipment actuated normally
- Automatic insertion of control rods (reactor shutdown)
- **Loss of external power supply**
- Emergency power generator activated (securing power supply)
- Emergency cooling systems actuated

- Emergency power generators stopped (loss of power supply)
- Emergency cooling systems stopped
Reactor water levels fell
Reactor core exposed
Reactor core damaged

1. Overview of the Accident at TEPCO's Fukushima Dai-ichi NPS

Response to the Accident (On-site)

❍ Response to the state of nuclear emergency (March 11)

At 19:03 on the same day, the Prime Minister declared the state of nuclear emergency and set up Nuclear Emergency Response Headquarters lead by the Prime Minister and Local Nuclear Emergency Response Headquarters.

❍ Setup of information sharing system between the government and the nuclear operator (March 15)

Establishment of Integrated Headquarters for the Response to the Incident at the Fukushima Nuclear Power Stations (renamed to "Government-TEPCO Integrated Response Office" on May 9).

❍ Announcement and promotion of the "Roadmap towards Settlement of the Accident at Fukushima Daiichi Nuclear Power Station, TEPCO" (April 17)

- Step 1 (Achievement date: around three months after the announcement)

Target: steady decline of the radiation dose

- Step 2 (Achievement date: around three to six months after the completion of step 1)

Target: release of radioactive materials is under control and the radiation dose is being held down significantly

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1. Overview of the Accident at TEPCO's Fukushima Dai-ichi NPS

Response to the Accident (On-site)

❍ Completion of Step 1 (July 19)

Confirmed the achievement of a "steady decline of the radiation dose"

❍ Completion of Step 2 (December 16)

Judged that the reactors reached a stable state such as "a condition equivalent to cold shutdown" and that the accident itself in the power station was brought under control.

❍ Promotion of mid-and-long-term measures

After the completion of Step 2, the government and TEPCO established the "Mid-and-long-Term Roadmap towards the Decommissioning of Fukushima Daiichi Nuclear Power Units 1-4, TEPCO" to promote mid-and-long-term measures.

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1. Overview of the Accident at TEPCO's Fukushima Dai-ichi NPS

Response to the Accident (Off-site)

March 11

Directives of an "evacuation zone" and an "indoor sheltering zone"

Directed an area within a radius of 3 km from the Fukushima Dai-ichi NPS as an evacuation zone, and an area within 3 to 10 km from the Fukushima Dai-ichi NPS as an indoor sheltering zone.

March 12

Expansion of the "evacuation zone"

Expanded the evacuation zone to a radius of 20 km due to the development of the situation.

March 15

Expansion of the "indoor sheltering zone"

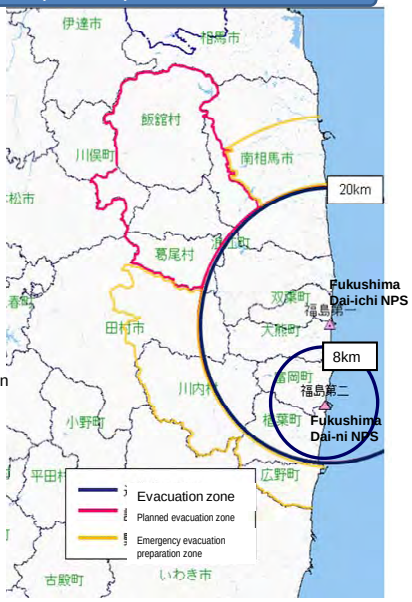
Expanded the indoor sheltering zone adding an area of a radius between 20 and 30 km.

April 22

Directives of "planned evacuation zones" and "emergency evacuation preparation zones"

Planned evacuation zone: zones where the accumulated radiation dose within one year from the occurrence of the accident may reach 20 mSv

Emergency evacuation preparation zone: the zones of the "indoor sheltering zone" that do not correspond to a "planned evacuation zone."



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2. Implementation of Public Hearings/Public Relations Regarding This Accident

Structure for Public Hearings/Public Relations by Government-Related Organizations etc.

Since this accident was a complex emergency including not only a natural disaster (earthquake, tsunami) but also nuclear accidents caused by the disaster and also the disaster became large-scaled and long-term, it was impossible for NISA to respond by itself and it became necessary to respond by the entire government.

❍ Provisions of information related to plants
- Press conferences by the Chief Cabinet Secretary
- Briefings by the NISA spokesperson
- Press conferences by TEPCO

❍ Other provisions of information
- Ministry of Education, Culture, Sports, Science and Technology (environmental monitoring)
- Ministry of Health, Labour and Welfare, Ministry of Agriculture, Forestry and Fisheries (impact of radioactive materials on food)
- Provision of information to overseas: carried out by the cooperation of various ministries and government agencies on the initiatives of the prime minister's office and the Ministry of Foreign Affairs

❍ Joint press conferences organized by the Integrated Headquarters for the Response to the Incident at the Fukushima Nuclear Power Stations

❍ Response to inquiries from the general public, and provision of information to the regions concerned

❍ Provisions of information to the emergency-affected region
- Nuclear Sufferers Life Support Team (release of newsletters, radio broadcasts etc.)
- Local Nuclear Emergency Response Headquarters (release of newsletters, organization of briefings etc.)

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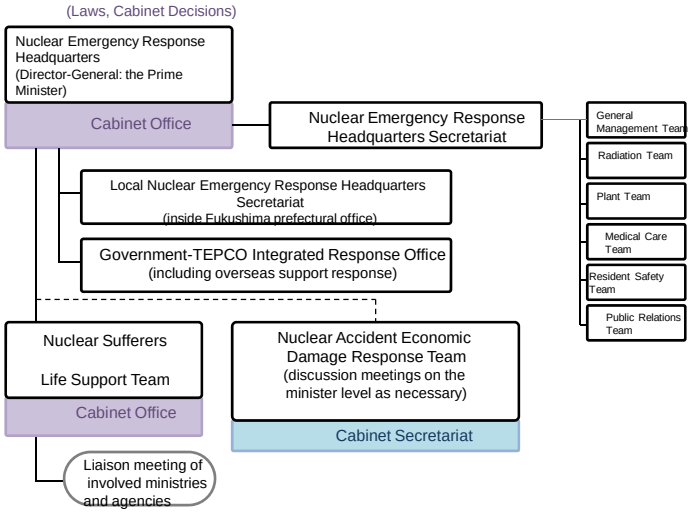
Nuclear Emergency Response Organizations



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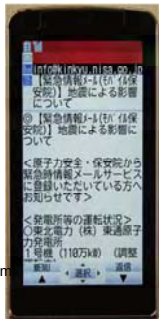
2. Implementation of Public Hearings/Public Relations Regarding This Accident

Public Hearings/Public Relations Activities by NISA as the Nuclear Emergency Response Headquarters Secretariat

(1) Provisions of information for the entire nation

1) Provision of information by means of PR materials
2) Briefings of news related persons and response to inquiries news related persons
3) Participation in joint press conferences held by the Government-TEPCO Integrated Response Office
4) Press conferences by the Director-General of NISA
5) Provision of information on the website
6) Provision of information on "Mobile NISA"



❍ Screen showing an email from Mobile NISA that was actually distributed to mobile phones

(2) Response to inquiries from all of Japan

Telephone consultations at a call center

Set up dedicated lines for telephone consultation immediately after the accident to respond to inquiries from the general public.

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2. Implementation of Public Hearings/Public Relations Regarding This Accident

Briefings Organized by the Public Relations Team of the Nuclear Emergency Response Headquarters Secretariat

First 24 hours after the earthquake occurrence

- Immediately after the earthquake occurrence, Mobile NISA sent out a first report, and a first briefing was held. 13 additional briefings were held during the first 24 hours after the earthquake occurrence.

2nd day to 1 week later

- Though the frequency of the briefings decreased temporarily due to some confusion about how information should be shared with the prime minister's office and the confusion following the occurrence of the hydrogen explosions, the briefings were held continuously at around two or three times a day.

After around the end of March 2011

- Regular briefings around twice a day also on holidays. (Additional briefings as necessary when troubles occurred.)
- Started joint press conferences by the Integrated Headquarters for the Response to the Incident at the Fukushima Nuclear Power Stations from April 25.

From the end of Step 1 to the end of Step 2

- After the completion of Step 1 on July 19, joint press conferences were held twice a week, and briefings organized by the Public Relations Team of the Nuclear Emergency Response Headquarters Secretariat were held once each a day from Mondays to Saturdays.

After the end of Step 2

- Joint press conferences ended with the completion of Step 2 on December 16. Since that time, each institution holds briefings and the like individually.
- The Public Relations Team of the secretariat has been holding briefings twice a week since the completion of Step 2 so far.
- Number of briefings held since the accident up to the present (as of the end of March 2012) is 390 times.

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2. Implementation of Public Hearings/Public Relations Regarding This Accident

Characteristics of the News Related Persons Briefings of the Public Relations Team of the Nuclear Emergency Response Headquarters Secretariat

- For a while after the accident, the briefings were broadcasted live over television.
- Moreover, the participants included not only major news media but also internet media and so-called freelance media which watched from a perspective that was different from that of the major media. The internet media streamed the briefings in real time and continuously without breaks. Moreover, since the videos were saved on the internet, they are available to be viewed for anyone at any desired time.
- In these briefings, Q&A was continued basically until questions have run out.

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2. Implementation of Public Hearings/Public Relations Regarding This Accident

Response to Inquiries From All of Japan

- Immediately after the earthquake, there were many inquiries concerning the situation of the accident, the outlook for the future, the necessity for evacuation, attention points when sheltering indoors, and the impact of radiation. After approximately 10 days later, there were many inquiries related to the safety of food and drinking water, as well as to the impact on the health of babies and small children.
- The number of inquiries was approximately 4700 in May and 3800 in June, in other words, approximately 100 to 150 inquiries per a day. As for the content of these inquiries, questions regarding the situation of the accident and prospects for the future, as well as the impact on health were consistently dominant.
- The number of inquiries during August was approximately 2400, which halved compared to those in May. The inquiries not only related to future response but also included complaints against NISA.
- The number of inquiries during December was approximately 1200, which halved again compared to those in August. The inquiries frequently related to measures for the future.

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2. Implementation of Public Hearings/Public Relations Regarding This Accident

Public Hearings/Public Relations in the Emergency-Affected Region – 1)

(1) Provisions of information nestling to the emergency sufferers and the emergency-affected region

1) Local media response

Briefings of news related persons and response to inquiries from news related persons

2) Efforts for the residents of the emergency-affected region

i) Newsletter from the Local Response Headquarters

ii) Radio broadcasts

iii) Life Support Communication, Fureai(“Contact” in Japanese) Newsletter

iv) Fukushima Prefecture Women's Press Round-Table Talk

(2) Public hearings from the residents of the emergency-affected region

1) Centralized(One-stop) consultation contact

2) Briefings by the Local Response Headquarters

3) Individual consultation events

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2. Implementation of Public Hearings/Public Relations Regarding This Accident

Public Relations with the International Society

(1) Communication with international organisations including the IAEA and the OECD/NEA
1) Provision of information on the basis of the Convention on Early Notification of a Nuclear Accident
2) Explanations on various international conferences
3) Response to false rumors

(2) Communication with overseas governments etc.
1) Briefings for diplomatic corps in Tokyo
2) Emergency simultaneous notification
3) Response to false rumors

(3) Communication with overseas media and residents with non-Japanese native languages
1) Joint press conferences for overseas media by the relevant ministries and government agencies
2) Posting of related information in English, Chinese and Korean language on the websites of the relevant ministries and agencies etc.

(4) NISA's internal efforts
1) English translation and distribution of regular "seismic damage information."
2) English translation and distribution of materials announced in an emergency

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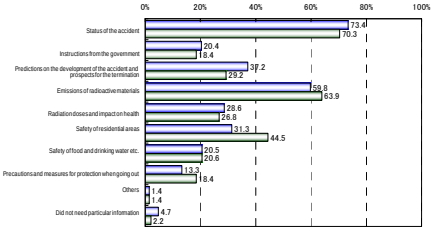
3. Evaluation of Public Hearings/Public Relations of NISA (or the Government)

Nationwide Questionnaire – 1)

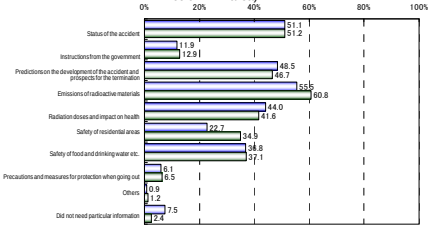
1 Information needed after the nuclear emergency and sources of such information

- In the initial period, the need for information on the "status of the accident" and the "emission status of radioactive materials" was high both nationwide and in the B-block including the emergency-affected region. In the B-block, the necessary information next to them was information pertaining to the "safety of residential areas."
- Thereafter, while the need for information on the "emission status of radioactive materials" and the "status of the accident" continued to be high, the need for "predictions on the development of the accident and prospects for settlement", "radiation dose and its impact on health" as well as "safety of food and drinking water etc." increased compared to the initial period both nationwide and in the B-block.

<Initial Period> (Upper column: nationwide, lower column: B-area)



<Later> (Upper column: nationwide, lower column: B-area)



Note: Internet questionnaire conducted on a nationwide basis (3,345 respondents)

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3. Evaluation of Public Hearings/Public Relations of NISA (or the Government)

Nationwide Questionnaire – 2)

1) Information needed after the nuclear emergency and sources of such information (continued)

- As regards information needed during the initial period, more than half of the replies both on a nationwide and on the B-block level said that they were not satisfied. The percentage of persons who were not satisfied is particularly high in the B-block with 74%. Frequent reasons given for this were "because there was no detailed information," "because the grounds and reasons for the information were unclear" and "because there was little information."

- As the means for obtaining information during the initial period, television stood out both on a nationwide basis and in the B-block and exceeded 90% on a nationwide level. The internet exceeded 35%. Meanwhile, in the B-block, almost half of the replies said that they had been unable to watch television.

- With regard to where information was obtained from, the most frequent replies both on a nationwide basis and in the B-block were "journalists and commentators of TV stations, radio stations, newspaper companies, magazines and other news media." Frequent reasons given for this were "because they showed assessments and opinions based on expert knowledge" and "because I felt that they showed fair and neutral assessments and opinions."

- With regard to the most trusted institute as an information source, frequent replies were "journalists and commentators of TV stations, radio stations, newspaper companies, magazines and other news media"(41%), "experts"(32%) and "information obtained from internet" (24%). Meanwhile, NISA was replied by10% on a nationwide.

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3. Evaluation of Public Hearings/Public Relations of NISA (or the Government)

Nationwide Questionnaire – 3)

2) Public hearings/public relations activities carried out by NISA etc. during the nuclear emergency

Briefings

75% of the respondents said that they had seen the NISA briefings. However, many of these respondents pointed out issues, with the most frequently mentioned reason being "the grounds and reasons for the assessments and opinions etc. were not clearly shown" (61%), followed by "could not feel an attitude trying to publish information in a proactive way" (56%). The same kind of comments were given for the joint press conferences held by the Government-TEPCO Integrated Response Office.

Website

The most respondents replied that they "have not seen the website" (74%). Further, among those who had seen the website, many pointed out issues, particularly most frequent issue was that they "felt that not all information was being published" (64%).

"Mobile NISA"

Most of the respondents (93%) said that they "do not know" Mobile NISA.

Telephone Consultation Contact

Most of the respondents (99%) said that they "have never used" this contact.

Centralized information of the public by the national government in emergencies

Replies included both those saying that public information should be centralized, and those saying that each institution should communicate information at its own responsibility.

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3. Evaluation of Public Hearings/Public Relations of NISA (or the Government)

Nationwide Questionnaire – 4)

3) Opinions on public hearings/public relations activities by regulatory bodies in the future

Replies included mainly the following. Opinions demanding information to be disclosed without being hidden were particularly frequent.

- Do not hide information (facts), handle information openly, make information available to the public
- Explain in an easily comprehensible way without using much specialized terminology
- Provide information quickly
- Provide accurate information
- Feel responsible and clarify where the responsibility lies
- Stand in the position of the general public and view through the eyes of the general public (provide the information that the general public needs)
- Centralize the communication of information
- Respond with good faith

Further, even if small in number, there were also the following opinions.

- Invite opinions via the website
- First communicate the truth on the current situation and the like, then give instructions on how to deal with it in a calm way
- Create a website where information and questions everyone wants to know can be seen at one glance
- Communicate in such a manner that citizens can easily participate
- Take in opinions from outside
- Provide information accurately and in an easily comprehensible way even if the information is bad news
- Indicate the grounds for why something is safe
- Centralize the relevant organizations and collaborate
- Inform the region where an NPS is located about the response when there will be troubles
- Consider how drills and emergency organizations should look like, utilizing the lessons learned from the accident at TEPCO's Fukushima Dai-ichi NPS
- Exert a strong leadership and show a clear vision to the people

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3. Evaluation of Public Hearings/Public Relations of NISA (or the Government)

External Interviews (Environmental NPOs in the Metropolitan Area etc., Residents of the Regions Concerned)

- Regarding the disclosure of information, we think that the current situation of people saying that information was hidden is due to the fact that the occasion to provide was missed even in the phase where the assessment was settled, for example, SPEEDI information.
- There was a need for information teaching how one should act if there are reports that radioactive materials were detected, or for information on prospects for the future, rather than information on the situation at the plant.
- What should be resolved is not only problems of the public hearings/public relations by regulatory bodies. Before talking about these problems, there are various other problems to be considered regarding the emergency preparedness system.
- As for the communication of information through news media, one line should be created by the national government in cooperation with the news media, instead of an organization where the prime minister's office, the ministries and government agencies are separate from each other.
- As for the provision of information from the national government, not only the conclusion but also the process through which the conclusion was reached should be disclosed.

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3. Evaluation of Public Hearings/Public Relations of NISA (or the Government)

External Interviews (News Related Persons: Broadcasting Stations, Newspapers etc. - 1)

1) Comments related to emergency response

- Maybe the preparations for public relations were insufficient because of thinking that no significant accident would happen.

2) Comments related to public relations capabilities

- Expected of NISA was the provision of information based on specialized technical knowledge, but NISA was not capable of this. Further, there was no original information from NISA.
- The fact per se that the briefings for news media were broadcasted as is into the world in real time was a first, and I think that this was something unexpected. I suppose that in the future, the side that communicates information needs to consider for whom the information is intended.

3) Comments related to the provision of information

- The handouts that were distributed were easier to understand than those of TEPCO. Even without listening to the speaker, one could understand what was happening just by looking at the drawings and tables.
- Although NISA had obtained and analyzed more than the information that was announced on the press conferences etc., no information at all was provided such as predictions on how the accident would develop. Also after the initial phase, NISA just passed on information from TEPCO, which is a poor performance from the aspect of information provision. If the prospects were bad, that information and also what it meant should have been communicated.
- If there were multiple scenarios, those should have been presented. Information should have been provided for the people to be mentally prepared for how they may need to respond later on.

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External Interviews (News Related Persons : Broadcasting Stations, Newspapers etc. - 2)

3) Comments related to the provision of information (continued)

- Reviewing the requests that have been brought up from the news media side up to now, it should be considered to work together with the news media to react what they were not able to do.
- I think that it was good that NISA press conferences were continued until all questions were attended to.

4) Comments related to information needs

- Monitoring data are important, but most of this extremely important information obtained during the emergency monitoring could not be reported to the residents and was announced to the public as much as three months later. The national government did probably not share what was important and what should be communicated.
- I think the base should be that a person familiar with nuclear technology should release uncertain information, even with conditions attached.

5) Comments related to organizational aspects

- Spokespersons should include people with more authorities.
- I think that there was no one to support the spokesperson (staff to take notes, take charge and connect them to each division).It is my impression that the organization was very fragile.

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3. Evaluation of Public Hearings/Public Relations of NISA (or the Government)

External Interviews (News Related Persons : Internet Media)

- We streamed not only the press conferences, but also filmed the material that was handed out and streamed the video.
- In the case of, for example, a journalist, information could be provided on an on-the-record or off-the-record basis, but in the case of an internet live broadcast, everything is on-the-record. Explanations that are made off-the-record will not reach the viewers.
- The spokesperson used the phrase "I don't know" too often. This was a problem. The spokesperson should explain why something was not known, and to what degree something was known.
- What was good about the press conferences of NISA was that they were "open." By principle, anybody could enter.
- As communication during normal times, they should hold regular briefings or the like. I think that, if possible, this should not be limited to press clubs but made accessible on a wide basis.

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3. Evaluation of Public Hearings/Public Relations of NISA (or the Government)

External Interviews (News Related Persons : Freelance Journalists)

- The minutes of a press conference should be disclosed immediately. If possible, videos should also be disclosed. Not disclosing the minutes is necessarily perceived as if NISA hides the minutes to prevent the press conferences from being examined.
- Regarding matters such as low radiation doses that even experts have different opinions about, NISA should explain multiple opinions of key experts and explain why Japan adopts which opinion, including what is known and what is not known.
- Whether to escape or not, the numerical values and their meaning, and a wide range of scenarios based on them should be explained. Interpretations should not underestimate the situation, and the explanations should start from the information that serves as the base for the assessment of NISA with a certain width and including various possibilities. The conclusion should be explained together with the reasons why that conclusion was reached after the abovementioned explanations.
- That no spokesperson was assigned during normal times is a problem. The PR staff cannot work unless they understand what is important during communication. Thus, they need training.

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3. Evaluation of Public Hearings/Public Relations of NISA (or the Government)

External Interviews (Diplomatic Corps in Tokyo, Overseas News Related Persons)

1) Diplomatic corps in Tokyo

- We mostly checked the press releases on NISA's homepage. Basically, we referred to the releases in Japanese language. We often looked at the "new arrivals" section. The problem about the English text was that it was posted after a certain delay.
- It would be good if there was a channel for direct communication of embassies with NISA not just for cases of accidents and emergencies.

2) Overseas news related persons

- When we phoned NISA to obtain detailed information, response was slow because maybe we were non-Japanese media. This often happens in Japan.
- If there is an occasion for an exchange of opinions with the media about how information provision to the media should be like, we will participate.

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3. Evaluation of Public Hearings/Public Relations of NISA (or the Government)

External Interviews (Communication Experts)

- I feel that perceiving the problems involving the NISA response to this accident as communication problems is wrong. The reasons lie in problems related to emergency preparedness and accident response, and there are limits to an appropriate communication in such a situation.
- Rather than how information should be released, the important issue should have been how the response should look like.
- The awareness regarding what public relations by the nuclear administration in general is given for, is poor.
- SNS and Social media such as Twitter may be difficult to use in some aspects, but it is a fact that everyone looks at these information sources, and thus one should consider using them also as means for public relations in an emergency in the future.

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3. Evaluation of Public Hearings/Public Relations of NISA (or the Government)

Interviews of Staff of NISA etc. – 1)

Interviewed persons: 22 persons of staff from NISA etc. who were involved with information provision related to this accident

1) Sharing of information among staff

- The attitude of trying to obtain first-hand information by oneself was insufficient.
- The human resource assignment was insufficient throughout the entire emergency response.
- Inside the Nuclear Emergency Response Headquarters Secretariat, there was not sufficient awareness of "for what purpose information is shared."

2) Information provision with relevant organizations

- The Nuclear Emergency Response Headquarters Secretariat perceived the request for information sharing from the prime minister's office as having to obtain approval before releasing information to the press, and because of this, the information sharing with the prime minister's office was temporarily subject to some confusion. After that, information sharing functioned again.

3) Response with an awareness of the people who are the ultimate receivers of the information

- While responding to mass media all the time, it was probably sometimes forgotten that the people are the ultimate receivers of the information.

4) Response to news related persons

- Due to insufficient communication with journalists during normal times, there was no awareness of what journalists are interested in, what they are likely to ask and how NISA should reply.

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3. Evaluation of Public Hearings/Public Relations of NISA (or the Government)

Interviews of Staff of NISA etc. – 2)

5) How briefings should look like

- With the emergence of internet media, briefings started to be broadcasted in real time and entirely. These changes were not sufficiently responded to.

6) How information should be released

- It was not considered to what level and how preliminary information is to be released.
- Instructions for the collection, analysis, assessment and response to information, which is the actual role of NISA, could not be given.

7) The relationship between Tokyo and the local area

- In Tokyo, NISA was regularly announcing plant information and the like, but in most cases, that information did not reach the local region before the announcement. Therefore, information was announced in the local regions later than in Tokyo, and the support for the local public relations was insufficient.
- Breaks in the information infrastructure during the initial period and the manner in which important information such as evacuation directives was communicated are also issues in terms of emergency preparedness.
- There were problems particularly in the sense of speed and accuracy. In the background for this were organizational problems. For example, staff which had English language skills, basic knowledge of nuclear power and the capability to check terminology was limited. Around the end of March, staff could not catch up with the increasing volume of English translations and the lack of staff in international public relations had reached its limits.

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4. Rearrangement of indications obtained from Questionnaires and Interviews etc.

Rearrangement of the indications

When rearranging the content of the indications obtained from questionnaires and interviews, the issues can be categorized as shown in the table below. These four categories were further organized into sub-categories according to their content. The table below shows the categories and sub-categories of the indications.

Category	Sub-category
1. Looks as if there was no capability for response	(1) Insufficient emergency response capability (2) Insufficient public relations capability
2. Could not see an attitude of trying to proactively provide information	(1) Provision of information is slow (2) Looks as if information is hidden
3. Response to information needs is insufficient	(1) Insufficient grasping of information needs (2) Insufficient response to needs related to information contents (3) Insufficient response to needs related to the means of information provision
4. Response organization is difficult to understand	

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5. Issues to be challenged in light of Public Hearings/Public Relations Regarding This Accident

Extraction of Issues to be challenged based on indications

We analyzed what caused the indications rearranged in the previous chapter. As a result, the following four issue categories were found. Our actions to address these issues will be explained in session 6.

Category	Sub-category
1. Issues related to the accident response	[Issue 1] Problems in obtaining information [Issue 2] Problems in analyzing and assessing information [Issue 3] Problems in the reliability of the analysis and assessment results
2. Issues related to the public hearings/public relations functions	[Issue 4] Public relations strategy is unclear [Issue 5] Insufficient collaboration between the decision-making field and the public relations field [Issue 6] Insufficient collaboration between the prime minister's office and NISA's public relations [Issue 7] Problems concerning the spokesperson [Issue 8] Problems concerning the functions for supporting the spokesperson [Issue 9] Lack of human resources for international response [Issue 10] Problems concerning the handling of uncertain information [Issue 11] Problems concerning comprehensibility [Issue 12] Insufficient use of public hearings/public relations tools [Issue 13] Insufficient communication with stakeholders
3. Issues related to the sharing of information with relevant organizations	[Issue 14] Insufficient collaboration with relevant organizations
4. Issues regarding emergency preparedness response	[Issue 15] Insufficient capability to respond to events that exceed expectations

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Crisis communication: experience in India

Dr. S.S. Bajaj, Chairman, AERB, India

Two recent instances (I & II) involving Crisis Communication in India

I) Fukushima accident and its local impact.

II) Incident involving to unauthorized disposal of radioactive source in metal scrap market, New Delhi, in April 2010

- *Utility experience of interactions with public at the Kudankulam Nuclear Power Plant (Sept 2011 to March 2012)*

2

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I) Fukushima- Immediate reactions & concerns in India

- First Reactions (First couple of days)
  - What exactly is happening?
  - How bad is it?
- Immediate concerns
  - What is the radiological impact on Indian environment?
    - Are we going to be affected?
  - How safe are our NPPs?
- Other concerns
  - Safety of Indians in Japan, any advisories to be issued?
  - Food import from Japan, any restrictions required?
  - Passengers/ Crew/Cargo, any monitoring/screening restriction required?

3

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Response of Indian Establishment (PMO, DAE, NPCIL, AERB) – Immediate steps

- PM called a meeting with nuclear establishment representatives and issued statement calling for review of safety status of Indian NPPs.
- Utility, Government and Regulatory body issued separate statements highlighting the robust systems in India and announcing plans to review and learn all lessons from Fukushima
- AERB appointed high level committee with national experts and notified the appointment through press release
- Interactions with media by all stakeholders through press releases and interviews

4

Communication by AERB to public

- Press statements by AERB conveying no radiological impact in India.
- Daily updates on website of AERB
  - Radiation level data from selected stations of Indian Environmental Radioactivity Monitoring Network (IERMON)
  - Status of Fukushima NPPs based on information from IAEA.

Radiation data reported by IERMON from selected locations in India

29-07-2011 (Morning)

Place	* Dose Rate in nGy/hr 28-07-2011 (Average observed)	* Dose Rate in nGy/hr 28-07-2011 (Maximum observed)	Dose Rate in nGy/hr March 2011		
			Average	Minimum observed	Maximum observed
Bangalore	87	88	88	84	92
Hyderabad	145	146	147	142	153
Kolkata	101	103	103	87	121
Manavalakurichi #	443	449	451	432	461
Mumbai	60	63	60	57	79
Nagpur	83	84	84	80	91
New Delhi	73	74	73	70	75
Shillong	119	120	120	113	130
Vizag	87	88	87	85	92

Indian Average Dose Rate: 88 nGy/hr ** | World Average Dose Rate: 97 nGy/hr **

* Average data of 12 hour duration from 12.00 hours on 28-07-2011 to 21.00 hours on 29-07-2011
# High natural background radiation area
** Literature reported average values

Note: There is no increase in the gamma dose rate above the normal background.

5

Agencies in communication with AERB..

Governmental agencies	for advise on ...
Food Safety and Security Authority of India	Food import from Japan
Revenue (Customs) & NDMA	Passengers/crew and cargo screening
Port authorities	Discharge of ballast water by outbound ships from Japan at Indian Ports

- Indians in Japan with queries on radiation safety
- Indians returning from Japan with queries on radiation safety

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Result

All the steps taken were largely effective in

- building confidence in the response of the Establishment including Regulator
- allaying the genuine concerns of public

in the face of anti-nuclear lobbies and media frenzy.

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II) Mayapuri incident (INES LEVEL-4)

- A legacy device (gamma cell) containing Co-60 source was disposed off in an unauthorized manner.
- Found its way into New Delhi's scrap market, Mayapuri in April 2010.
- One death and four cases of radiation sickness
- Incident came to light, when the Radiation Safety Officer (RSO) of a hospital recognized symptoms of radiation sickness in one patient and promptly informed AERB.

Scrap market, Mayapuri

8

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Chronology of events..

Date	Events
April 7th 2010	• Information to AERB from RSO regarding radiation injuries • Two AERB officers immediately investigate / Radiation detected in shop / shielded/cordoned • AERB informs emergency response agencies of DAE
April 8th - 9th , 2010	• Search operations initiated with police support
April 9th – 16th April 2010	• Cobalt-60 pieces discovered at several locations • Transferred into shielded casks and sent for storage at Narora Atomic Power Station site • Radiation levels came down predominantly to background levels • Media briefed about situation being under control • Event attracted high media interest
April 16th to mid May 2010	• Origin of source traced ; accounting of all sources • Remnant contamination handled (clean-up over weekends) • Updates to Parliament and media on the above actions

Challenges faced during this period....

1/2

- Concerns/ Apprehensions amongst public:
  - Extent and nature of hazard
  - Health status of affected persons
  - A malicious act?
  - Imported metal scrap?
- Effectiveness of regulatory control system questioned
- Time gap in ascertaining the origin of the source led to speculation by media such as:
  - "India is being used as the dumping ground for disused sources"
  - "The number of source pencils retrieved is a small fraction of the original number and many source pencils are still missing"

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Challenges faced....

(2/2)

- The NGO Greenpeace reported on May 14th 2010, after three weeks of first reporting of the incident, that at certain locations in the scrap yard, the radiation levels were much higher (5000 times the background)
- Re-surfacing of anxiety amongst the local population

Reported certain hotspots of 500µSv/hr while background was 0.1µSv/hr

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...and the challenges were addressed by prompt communication with media and public

- Initial communications focussed on :
  - Action taken to locate and secure all radioactive cobalt material and render area safe
  - Investigation in progress to ascertain the source of Co-60
  - Medical management of affected individuals
  - Background on regulatory mechanisms in place reg. use of radioactive materials

Retrieved Gamma cell

- Engagement with workers in scrap market to ease their anxiety
- Subsequent communications addressed:
  - Discovery of the origin of the radioactive material; total inventory accounted for
  - Actions taken against errant institution
  - Action plans by AERB to prevent recurrence such as bringing on board legacy sources
  - Health status of those affected; fact about no fresh radiation affected individuals.
  - Remnant contamination cleanup actions

12

Successes in the area of crisis communication at Mayapuri

- The swift and effective action - *an important role in confidence building with the locals.*
- Speedy retrieval of the radioactive source pencils; identification of source device & confirmation of recovery of all radioactive material - *a big deterrent for negative press coverage*
- Continuous and updated press releases by AERB *- Allayed misgivings and fears of radiation amongst general public.*
- Awareness campaigns at the site- *proved extremely useful to ease the tensions*

Radiation fields brought down from 0.5mSv/hr-1mSv/hr to 15µSv/hr at the entrance door where majority of sources were found.

Source pencils transported in a lead container for proper disposal

13

Public unrest at Kudankulam

(Sept. 2011 to March 2012)… 1/2

- Not a case of crisis communication, but has relevance since pre-requisite for effective crisis communication is prevalence of rapport & trust between utility (and other authorities) on one hand and target public / stakeholders on the other
- Two units of VVER 2X1000MW(e) in final stages of construction with one under commissioning
- Public agitation against the NPP started in September 2011 resulting in stoppage of work
- The agitation has led to huge financial losses to the utility

Protests by locals and fishermen

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Public unrest at Kudankulam

(Sept. 2011 to March 2012) ….2/2

- Response of Government / Utility
  - Expert panel constituted to address all safety related issues raised by agitators :Agitators not satisfied with response
  - Package of financial incentives / welfare measures for neighboring population
  - Finally law enforcement measures to clear the blockade
- Immediate Cause
  - In background of Fukushima accident; off-site emergency drill initiated by utility, heightened perception of danger
  - Situation exploited by handful of anti-nuclear activists
- Root Cause
  - Possibly simmering resentments, expectation of welfare measures which were not met over years
  - Need for stronger prior interaction between utility and local population

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Challenges in effective crisis communication

- Delay in ascertaining facts. If the flow of information is perceived as slow, the media could be fed with less reliable sources.
- Challenges of releasing information 'responsibly' without causing heightened fear.
- Selective hearing and understanding by public during a crisis.
- The most effective way of conveying doses / levels of contamination / releases to public.

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How do we convey information on doses / levels of contamination / releases to public?

- 'micro', 'milli', 'Mega' 'Tera'; Bq, Sv. …….. are daunting
- phrases like '…. so many times natural background' or '…. so many times normal limit'……. can be incomprehensible and alarming.

- What needs to be conveyed is perspective on health impact of such doses / releases etc.
- Developing guidance on this issue is crucial for effective crisis communication

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Some lessons…

- Special nature & requirement of crisis communication
  - Quick response required
  - All information may not be available
  - Situation of duress
- Pre-requisites for successful crisis communication
  - Pre - existing healthy relation between authorities and public
    - trust, rapport, channels of communication
  - Preparedness developed during peace time:
    - Strategies and procedures based on past experience
    - "Emergency communication cell", which can be activated quickly when needed
    - Access to reliable & timely information and data from the field / monitoring provisions

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Core communication activities during Fukushima and commendable practices identified by the CSN

Ms. Marina Calvo, Communication Advisor, CSN, Spain

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NEA International Workshop on Crisis Communication:
Facing the challenges

Core communication activities during Fukushima and commendable practices identified by CSN

Marina Calvo, Communication Advisor -CSN

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I. Context frame and introduction

II. Informative actions and target groups

III. Key messages

IV. Specific tools used

V. What we learned

VI. Main conclusions

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01 Context frame and introduction (I)

Context frame

- The 2011 Fukushima accident occurred outside EU
- Still, citizens followed it as if it affected them directly
- Nuclear accidents have no barriers, they are global
- The communicative response cannot be isolated from that of neighbourhood organisations and international partners

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02 Context frame and introduction (II)

Introductory remarks

❑ **March, 2011** Fukushima: huge communicative challenge for NRO globally

❑ All communication actions undertaken nationally by CSN were subject to prior receipt of confirmed data from official sources

❑Foreign practices influenced communication strategies nationally

❑**May, 2012** One year later: It´s time to exchange experiences and draw the lessons learned to improve the gaps

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03 Informative actions and target groups

Immediate action: Follow-up from CSN Emergency Room (SALEM)

❑ **March 12: SALEM on alert, not on Emergency**

❑ **Members**

❖ Plenary + General Secretary

❖ Nuclear Safety and Radiation Protection Directors

❖Director of the President´s Cabinet

❖ Deputy Directors and CSN technical staff

❖ Communications Officers

❑ **Technical directors assumed role of spokespersons giving first interviews on the spot**

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04 Informative actions and target groups (II)

Following informative actions

Priority.- To obtain from IAEA constant information on the accident and provide up-to-date information on the events at Fukushima

Target publics.-

- Give advice to the Spanish Government
- Supply information to all parties: Parliament, citizens, media and stakeholders
- Coordinate the follow-up and response activities with international authorities

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05 Informative actions and target groups (III)

Target group: Government

- **March 15th:** Meeting with the President of the Government: CSN President + DG for Radiation Protection + Head of Cabinet
- **March 16th:** Government launched a follow-up unit:
  - Ministries of Health, Interior and Foreign Affairs and CSN

Subsequent actions:

- Government released information on the situation of the Spanish citizens in Japan and offered voluntary return, in line with EU MS.
- Ministry of Health, in collaboration with CSN, set an Action Protocol for passengers coming from Japan
  - Voluntary radiological controls of passengers and cabine crew by CSN (no contamination found)

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06 Informative actions and target groups (IV)

Target group: Parliament

- **March 15th:** CSN President requests to appear before Parliament to inform on the status of the plants and the follow-up activities (CSN + IAEA + European Commission).
- **September 15th / December 23rd:** CSN submits the stress-tests reports sent to the EC and the associated press releases.
- CSN will continue to inform the Parliament on the ongoing process derived from Fukushima, as well as on any other related information in its field of competence.

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07 Informative actions and targets (VI)

Target groups: Citizens and media during Fukushima

✓ **33 press releases** updating the Fukushima situation and key data on actions undertaken by Spanish authorities

✓ **22 interviews** *(from March 12th to April 4th, 2011)*
- ❑ **March 14th:** CSN President first live assessment of the situation on primetime news public TV

✓ **Audio clips** - Statements by technical experts **uploaded on the website**:
- ❑ Detection of radioactive isotopes in Spain from Japan
- ❑ Decision of the Japanese authorities to increase INES rate

✓ **Social media (Twitter)**
- CSN press releases & useful documents
- IAEA news & updates

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08 Informative actions and targets (VII)

Target groups: Citizens and media post-Fukushima

✓**Briefing with media (October 26th, 2011)**
Presentation by Radiation Protection DG on the preliminary results on the IAEA Rehabilitation Programme of contaminated areas in Japan

✓ **Full coverage of the Stress-Tests Exercise (*ongoing*)**
❑ Around 20 interviews on Preliminary Report (September 15)
❑ Press Conferences: ITC-2 and Final Report **(July 1st / Dec 22nd, 2011)**
❑ Special microsite
- Press Releases
- CSN Reports and Instructions to licensees
- Detailed memos
- FAQ (own and EC´s)

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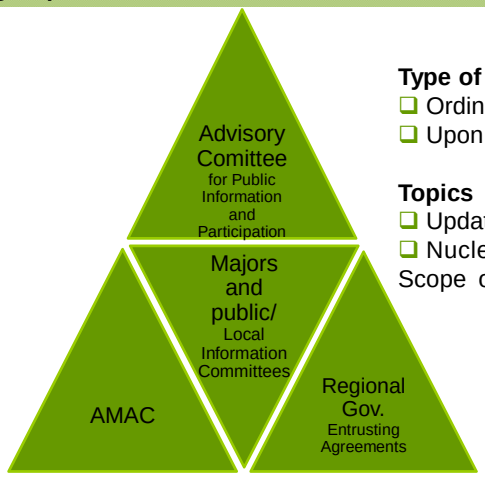
07 Informative actions and target groups (V)

Target group: Other institutional stakeholders



Type of meetings
❑ Ordinary
❑ Upon request

Topics
❑ Updates on Fukushima
❑ Nuclear Safety improvements
Scope of stress-tests and results

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08 Key messages (I)

1. There is **no emergency in Spanish NPPs**. Nuclear facilities operate safely
2. Fukushima Daiichi is a **very serious accident**.
3. There are **no elements for concern regarding Spanish citizens** derived from Fukushima

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09 Key messages (II)

4. CSN keeps in **close contact with IAEA**. We will **only issue confirmed data** from the Japanese Government or from Vienna
5. EU countries are acting in a **coordinated way**, and so are nuclear regulatory authorities
6. CSN follow-up team is **permanently on duty** to assess and inform all parties timely: Government, Parliament citizens, media...

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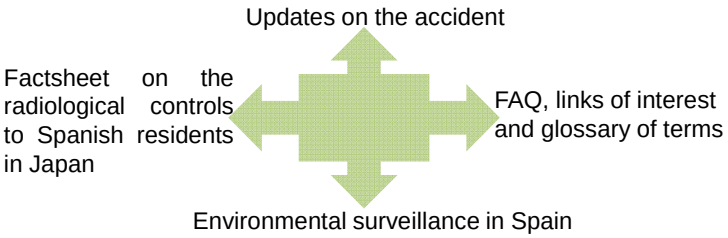
10 Specific tools used (I)

CSN Website: Special microsite devoted to Fukushima follow-up

11/03 – 11/04-2011: 148.836 hits *(in comparison with 20.723 in same 2010 period)*



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11 Specific tools used (II)

CSN call centre and information requests received by e-mail

More than 900 requests by telephone and e-mail managed from "Communications" in coordination with in-house competent experts *(72% of them in the first month after the crisis)*

Main concerns:

- **Individuals in Japan:** Possibility of contaminated residents nearby Fukushima, controls to families visiting Japan with children, recommendations and safety measures for travellers…
- **Companies importing goods:** Possible contamination of products from Fukushima neighbouring areas, request for certificates ensuring absence of contamination at origin

✓ Elaboration of supportive articles, FAQs addressing these issues

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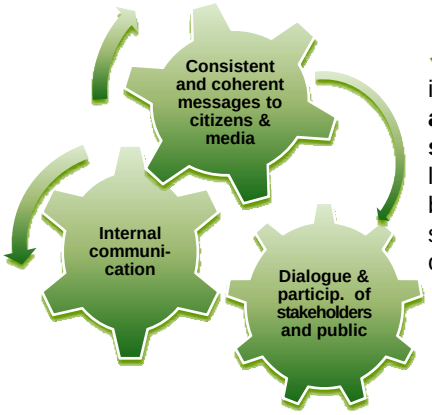
12 What we learned (I)

Importance of 360º Communications management



✓ In a global crisis like Fukushima it was key to undertake a **holistic approach** oriented to **gaining social trust** by maintaining high levels of transparency and become the informative reliable source in Spain for an accident occurred abroad.

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13 What we learned (II)

Need for professional communicators

✓ **Integrate communications professionals, experienced in crisis management and new technologies**

- ❑ Importance of training in drills and all sorts of crisis scenarios
- ❑ Foster transparent, open and quick communication tools, such as:
  - -Social media
  - -Dedicated tools for crises (dark sites)

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14 What we learned (III)

Essential to rely on a communications plan adequately trained

Objective: Because **informal information is much faster than official information**, it is a must to have a communications plan **setting a clear procedure** with the means, participants, responsibilities and recipients of external communications

Oriented to 4 main principles:

- Anticipation
- Timeliness
- Quality of information
- Truthfulness

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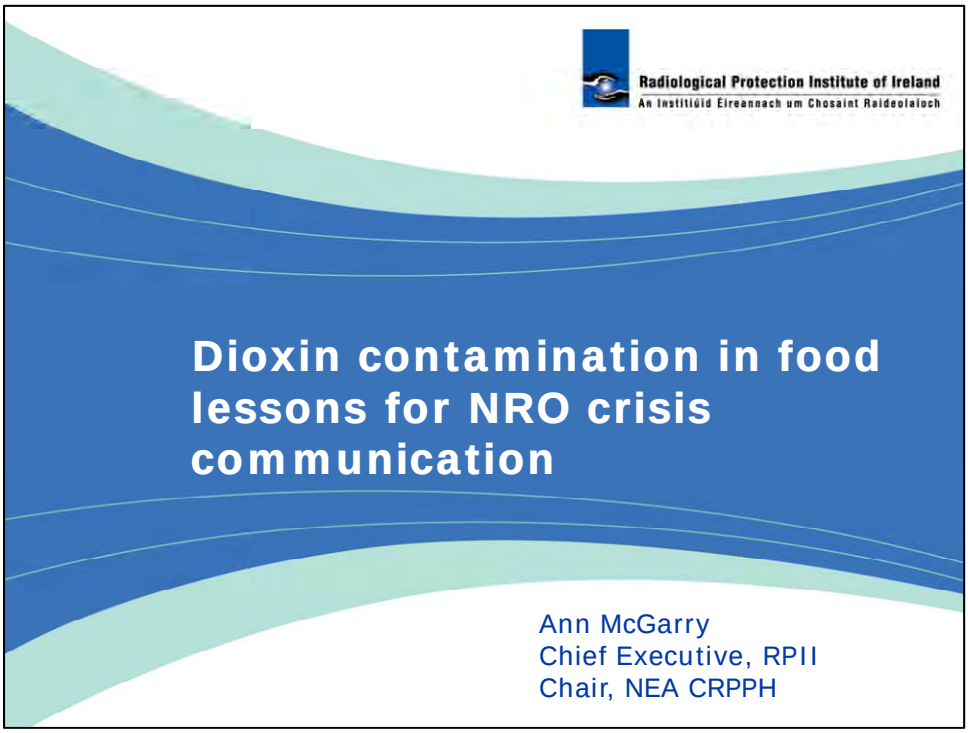
15 Conclusions

- Information is **absolutely global**
- Current global media can circulate informal information much faster than official sources
- If the **main information source** is not an official source, the organisation´s team in charge of communications / spokespersons, you have failed!
- **International cooperation is already a key** for communications management: this is a huge new element in the nuclear field
- One of the important challenges remains **the set up of a global approach to crisis communication management**

Dioxin contamination in food: lessons for NRO crisis communication

Dr. Ann McGarry, Chief Executive, RPII, Ireland, Chair of the CRPPH



Content

- Dioxins
- 2 contamination events: Belgium, Ireland
- Effective crisis management
- Lessons for crisis communication
- References

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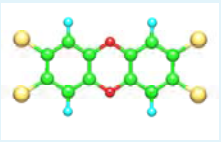
Dioxins



- By-products of industrial and chemical processes
- Accumulate in the fat of animal species
- Persistent, with half-life of 7 to 11 years
- Approximately 90 % of human exposure due to consumption of contaminated food
- Exposure to high levels
  - Short-term ➡ skin lesions
  - Long-term exposure ➡ increased risk of cancer
- Similarities with radioactivity

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The Belgian dioxin crisis in 1999

- Jan - contamination occurred
- Feb - effects of contamination noticed
- Apr - reported to national authorities
- Apr - dioxin confirmed by analysis
- May - public informed
- May – European Commission informed
- May - withdrawal of contaminated foodstuffs from sale and export ban

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The Irish dioxin crisis in 2008

- 28 Nov - Contamination identified during routine farm testing
- 1 Dec - Movement of animals restricted
- 2 Dec - Source of contaminated feed identified
- 4 Dec - Movements on other affected farms restricted and public informed
- 5 Dec – European Commission informed
- 6 Dec - All products manufactured between Sept and Dec recalled
- 7 Dec - Press statement – "no adverse health effects"
- 11 Dec - Products returned to market

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Effective crisis management

- Timely public communication
- Acknowledgement of real and perceived risks
- Control of stigma

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Timely public communication

Belgian crisis: one month delay led to

- allegations of cover-up
- accusations of serving economic rather than public health interests
- blame directed at Government

Irish crisis: prompt communication led to

- sense that crisis was being managed
- trust that problem would be resolved

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Timely public communication

- Establishes credibility in the organisation providing the information
- Helps shape public attitudes towards the risk
- Sets the pace for resolution of the problem

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Acknowledgement of real and perceived risks

Belgian crisis

- Uncertainty about real extent of contamination
- Authorities projected confidence and optimism
- Disagreement between EC and Belgian authorities in assessing the risk

Irish crisis

- Uncertainty about real extent of contamination
- Clear statement of risk assessment issued by Food Safety Authority of Ireland

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Acknowledgement of real and perceived risks

- Essential for building trust and credibility
- Communicators need to understand what people know and believe
- Communication is undermined by denying real risks
- Also by ignoring non-risks percieved by the public as real risks

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Control of stigma

Belgian crisis

- Media conveyed the risk as unacceptable rather than focussing on the risk of actual exposures
- Information website and call centre established, but too late

Irish crisis

- Authorities provided detailed information about the actual risks ....
- And about efforts to reduce the risk to public health

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Control of stigma

- Poorly understood risks are not readily accepted so accessible, understandable information must be provided
- Stigma can be reduced by clearly explaining efforts to reduce the risk, and levels of uncertainty
- Media has a large influence on public perception of seriousness of crisis
- Effective crisis management can exert a positive influence on the media

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Lessons for crisis communication

- Risk assessment
- Risk management and decision making
- Communicating risk and public information
- Public concerns
- The international dimension

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Risk Assessment

- Plan for a range of scenarios, including for low probability / high consequence events
- Maintain rapid and effective surveillance systems
- Ensure risk assessments are based on good science
- Include all relevant bodies

Risk Management and Decision Making

- Ensure clear leadership at all stages
- Coordinate effectively between all agencies
- Establish a credible, open and responsive regulatory system
- Think "worst case scenario" (better to relax a ban than to extend it)

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Communicating risk, public information and public concerns

- Include public information as an integral part of all emergency plans
- Provide as much detail as possible about the nature of risk, what is still unknown and efforts to reduce uncertainty
- Decide in advance the list of issues to be covered in early news conferences
- Agree appropriate experts in advance
- Ensure consistency of message
- Address real and perceived risks
- Ensure that actions match words

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The international dimension

- Keep neighbouring countries fully informed of developments
- Use appropriate international communication channels
- Assist international organisations in their risk assessments
- Where possible, use internationally agreed limits

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Summary of discussion for Session 2

Prepared by the Secretariat

Question 1: *How do NROs ensure cultural independence as well as legal independence? From whom do they ensure that independence?*

Mr. Bajaj: As the AERB is today, it is the implementing arm of the government, which has to report to the Atomic Energy Commission. The reporting system is such that it can be perceived as not being independent. A reorganisation is in place and will add a further dimension of legal independence.

Question 2: *What is the role of international agencies like IAEA in dealing with a nuclear crisis?*

Ms. McGarry: Ireland is a small non-nuclear country. It was important to have a source of information scientifically sound and shared by different countries. We feel it is important to have an international organisation that countries can look to for the latest information. It is useful to have the IAEA who can share information across all countries.

Mr. Watanabe: There are two roles for international agencies: first, to see the situation in a more objective way. Trust towards the NRO may be diminished and international organisations have an important role during a crisis. If citizens do not trust NROs, then NROs have to rely on international agencies to explain the situation to the public. The second role of international agencies is being a hub of information among countries concerned.

Question 3: *Could you explain how the CSN communicated after the Fukushima accident?*

Ms. Calvo: CSN was able to transmit information through different mechanisms, like to all nuclear areas, based on the relationships with AMAC. The CSN had two meetings to address the situation in Japan and the stress tests. In addition, the CSN also has other mechanisms in place, which are local Information Committees; they have allowed the CSN to make presentations on stress tests and the Japanese situation. These Information Committees are currently being subject of newsletters and web pages containing information from Fukushima. On another hand, CSN Advisory Committee on Public Information and Participation is a forum that can transfer information directly to the nuclear areas.

Question 4: *How do you establish trust in the NRO?*

S. Bajaj: Trust is established over a long period of time, through taking actions and communicating those actions. The regulator should not communicate actions, which the utility has to communicate.

Mr. Lacoste: There was a discussion between rational and emotional. If you have trust in some organisation, is it a rational decision or an emotional feeling or a mixture of both?

Ms. McGarry: Even rational decisions have some emotional level to them. It is not completely possible to separate the two. There is always an emotional component and this is the difficulty, particularly for technical organisations.

Mr. Lacoste: We should be careful about saying some are rational and others are emotional.

Question 5: *What was the relationship between NISA and JNES during crisis communication?*

Mr. Watanabe: JNES is a professional organisation which supports NISA. JNES supported NISA in many different ways during the Fukushima Daiichi accident. We have an exclusive telephone line where the general public can ring and JNES specialists can deal with demands from the public directly through the telephone line. JNES has not carried out press conferences by themselves but has given NISA technical advice and information for NISA's press conferences. NISA is a government organisation and JNES is an independent organisation which can provide specialist advice.

In summary

1. Timeliness of communication is an element in effective crisis communication.
2. Trust and credibility are key elements in crisis communication and can be affected by communication.
3. Communicating what information is available is as important as timeliness, though perhaps incomplete and uncertain. As more details become available, communication can become more precise.

Session 3

Panel on social expectations regarding NRO crisis communication

Chair: Mr. André-Claude Lacoste, President, ASN, France

Co-ordinator: Mr. Emmanuel Bouchot, ASN, France

Speakers:

- Mr. André-Claude Lacoste, President of the *Autorité de sureté nucléaire* (ASN), France
- Dr. María Neira, Director of Public Health and Environment, World Health Organisation (WHO)
- Mr. Roland Palmqvist, Vice-mayor, Sweden / President of GMF (Group of European Municipalities with Nuclear Facilities)
- Mr. Claude Birraux, First Vice-Chairman of the Parliamentary Office for Scientific and Technological Assessment (OPECST), France
- Mr. Pete Wilkinson, Wilkinson Environmental Consulting Ltd, UK.
- Mr. Laurent Stricker, Chairman of the World Association of Nuclear Operators (WANO)

Session 3

Panel on social expectations regarding NRO crisis communication

Summary prepared by the Secretariat

Mr. André-Claude Lacoste, President of the Autorité de sureté nucléaire *(ASN), France*

Let me introduce this panel on social expectations regarding nuclear regulators' crisis communication with a few remarks. First of all, we should be reminded that trust is built day by day during 'peaceful times' (when there are no crises to manage). When a crisis occurs, behaviours can be rational or emotional, which will have an impact on the decision-making process. Regarding the accident in Fukushima, it may take ten years to fully understand what really happened, so we should remain cautious when passing judgment on crisis communication preparation. Should such an event occur in Europe, the question is: how would we communicate with the public? We have to acknowledge that a severe accident is still possible, so preparing for accident mitigation as well as an accident's impact on society are real issues.

Crisis communication should be comprehensive, timely, accessible … but in the case of an actual accident, we do not always do everything as well as can be expected. This is because we have incomplete information and are unable to answer all questions, but we still have to communicate. This is why in France, we decided, very early on, just after evidence proving that it was a severe accident came out, to "rate" the Fukushima accident as more severe Three Miles Island accident (1979) , but less severe than the Chernobyl accident (1986).

Representatives from civil society have been invited to participate in this panel. They will present their views before the general debate takes place. They include Dr. María Neira, , a representative from the World Health Organisation, Mr. Roland Palmqvist, a city mayor who is also president of the European group of municipalities with nuclear facilities, Mr. Claude Birraux, a member of French Parliament, Mr. Pete Wilkinson, who will represent both the NGO he works for and -Mr. Laurent Stricker, a representative from nuclear industry.

Dr. María Neira, Director of Public Health and Environment, World Health Organisation (WHO)

Fukushima taught us that nothing worries people more than their health. WHO started to receive questions, calls and demands of information regarding the health of children, among others. WHO has a lot of experience in communicating about risk in different fields, like food, bacteria, viruses, etc. Our role is not just managing risks but communicating risks. In this regard, there are five basic principles in communication: transparency, trust, empathy, caring and accuracy. You need to communicate that you are empathising with the people, care about them and address public's perceptions. For

WHO, there is a need to plan in advance. WHO collaborates with the IAEA in co-ordinating emergency plans.

For many years, the WHO has been collecting scientific evidence about basic safety standards. One of the lessons learned is that social media can be used as along with traditional means of communicating. Ensuring co-ordination, harmonisation, aligning and maintaining independence are important. For this, roles and mandates need to be well-defined. Information needs to be targeted and re-assessed during the crisis. Merely informing the public is not the same as requesting the public take certain actions. This information associated with recommendations is extremely important and is expected from the public. For WHO, communicating on Fukushima was not only a question of what to do, but also what not to do (e.g. avoid unnecessary control at airports or unnecessary trade restrictions).

NROs need to be prepared to answer questions that general public is concerned about. Public health is at the forefront of people's minds. Whenever there is a crisis, it is important to incorporate this element. Health can help NROs to better communicate about the reality of nuclear safety.

Mr. Roland Palmqvist, Vice-mayor, Sweden, President of Group of European Municipalities with Nuclear Facilities (GMF)

Citizens in most municipalities with nuclear facilities have accepted the facility and have high confidence in the facility. But, accidents happen locally and it is always the local citizens who have to face the consequences. For example, we are talking about the accident in the city of Fukushima, not in the country of Japan, in Three Mile Island and not the United States.

Why do municipalities accept to live with the risk? Because it is about trust and big developments in the area and when you trust someone, it is because you have a long relationship and you can participate in the decision-making process. You cannot force municipalities to accept a facility. It takes a long time to build trust, but only a few minutes to destroy trust.

Who should we trust? You trust the regulators, but regulators must be transparent, independent, free from the government and competent authorities. If there is a crisis communication is important. Regulators must inform the public rapidly, without any delay; that their information needs to be relevant and their spokespersons should be media-trained. Regulators should have contacts at the local level because municipalities need to contact people, evacuate them, etc. Confidence is built over years, before an accident happens and structures to build that confidence must be in place during the siting phase.

Mr. Claude Birraux, First Vice-Chairman of the Parliamentary Office for Scientific and Technological Assessment (OPECST), France

Let me remind you that I was not only a member of the Parliamentary office but also a Chair of the Parliamentary Inquiry Commission which was set up after the Fukushima accident. I chaired the first public hearing only five days after the accident and we had of course a lot of pressure, a lot of people, but we tried to give information we know. I have prepared a relatively long paper; I have underlined the most important sentences and for the ending I will tell about this sheet of paper but everything is on this sheet of paper.

I think the first thing is transparency. Transparency, it is to tell what you know and not to imagine something else, only the facts. Also, with transparency you need some pedagogy, which puts things in terms people can understand. You can also organise transparency by giving them a lot of information that they probably will not understand. Transparency without the general public's understanding, is not meaningful. So you need

to explain, you need to tell them what is happening and share what information you have.

But credibility is not to come with a book on the shelf with a roadmap to crisis communication. It's not out of the box one morning (suddenly), credibility is built on the long term, it is linked with transparency, and transparency is linked to day to day management, day to day events, the way to communicate with local the authorities with the information committees, with the journalists, and with the NGOs. It's a very long term way (plan), and it's the only way to construct credibility.

Credibility is also linked to a strong nuclear safety authority. We decided in our country to give the safety authority its total independence in 2006. If you want things to work you need to have a strong independent safety authority with a strong scientific technical support. The two are linked. A crisis is unexpected events. So you need to train, you need to exercise not only the workers but also exercise with the population.

We went to the north of France and asked the Prefect what he forecasted in the case of incident or accident in the six nuclear power plants. Of course he said "we have buses, we have medical ambulances, we have hospitals, we have places to put people," of course all this is necessary but we need to go beyond. If people are outside of their home for several days they need to sleep, they need to eat and it's only by the exercise, the practices – good practices, associating (acclimating) the population that you can succeed.

So crisis communication is far from (not much) different than everyday communication, you need to get use to it, you cannot suddenly discover, out of the box, crisis communication. But if you are well -trained you will be able to face (it). My conclusion is it is only long term practice which will create long run credibility. To meet the social expectations it's thanks to transparency and pedagogy and that needs long-term consistency, patience, it's an everyday work (effort) even if there is no crisis.

Mr. Pete Wilkinson, Wilkinson Environmental Consulting Ltd., UK.

I am a co-founder member of FoE and Greenpeace UK. For us, nuclear power is a choice. It is not an absolute necessity.

We often hear that there is misinformation from the greens but there is a lot of misinformation from the nuclear industry and the balance should be redressed. In 1957, there was a fire in Cumbria and the authorities threw away thousands of gallons of milk and said that the problem was sorted and there was no impact from that fire. It took Greenpeace years later to do the calculations and to show that between 12 and 240 people died as a result of that fire. There was a high level of uncertainty on the impact of global radiation.

Most people consider the independence of regulators a myth. I asked EDF for information on the outages because some critics claim that there is a relationship between the outages and some discharges of radioactivity and the enhancement of leukaemia in children around NPPs. EDF said that this information was commercially confidential. I went through the FoI Act and after many years, I still do not have this information. This is an example of a regulator putting private interests in front of public interests. Regulators are too close to the industry.

In the short term, nuclear power provides jobs and things we think we need but in the long term, it leaves massive problems to future generations.

Once you control information, you can be as free as you wish. We can't balance the information that people get. At present, there is no real engagement and consultation. NROs are only providing information but not consulting or engaging the public.

In this meeting, we are talking about crisis management and not about crisis communication. This meeting should be called "pre-crisis communication". If you are

doing pre-crisis communication, you still have time to do something constructive, but if you are doing post-crisis communication, you are managing an existing problem. You have to make sure you do something before it arises.

Why are communities and NGOs so agitated about nuclear? In the UK, the public is constantly inundated with information regarding safety and risk. However, there are still uncertainties right away, through the nuclear industry regarding the impact of exposures.

The stress tests are carried out by the operator and this adds to the feeling of distrust and concern generated in the communities. What we need from nuclear regulators is strong and impartial regulation. The big issue that emerged from Fukushima is the lack of trust. One of the questions emerging is "how can we be prepared for this if it happens again and what should we do?" At the moment there is confusion over the information in the NPPs in the UK. There is an information vacuum. There is a review group going on. At the site stakeholder groups, we put our views to local authorities and hope they take these views to governments. We want a robust and credible regulatory system. It is time to drop the language of certainty and recognise that there are uncertainties. NROs have to acknowledge the uncertainties and have to tell people what we don't know. The nuclear industry has to drop the constant reassurance. We have to set up community forums with public and regulatory partnerships involved. We have to make sure the information given to people is not just derived from the nuclear industry, but from people who have different views and perspectives, outside the industry, who may be critics and have credibility. The proposal I have is that in order to generate trust and transparency, the community forums need to be set-up. We need to make sure that concerns raised in those fora are dealt with in a way that satisfies the community or if it cannot be solved, put on an issues' register and take them forward, with the support of the regulators, to the next level. The regulators have to work on behalf of the community to get trust. Regulators have to engage, work with NGOs, with critics and recognise that there is more than one view on nuclear power and that there are uncertainties.

Mr. Laurent Stricker, Chairman of the World Association of Nuclear Operators (WANO)

The added value of WANO is to focus on accurate information. The first condition for that is transparency. Trust relies on transparency. Transparency is a day-to-day communication and not only when crisis happens.

In the frame of Fukushima's action plan, WANO is working on an event response strategy in co-ordination with IAEA and other international organisations.

Crisis communication must be considered as a vital area with staff trained for this specific purpose. Training is an investment. During training sessions it can be explained that hiding an event is never an option.

It is essential to offer accurate information as soon as possible. Do not make assumptions, do not deny the risks, and do not make things appear better or worse. It is important to get the information directly from the sources.

Summary of discussion for Session 3

Prepared by the Secretariat

Question 1: *Do you think it is necessary to give "correct and unselfish" crisis communication when an accident occurs?*

Mr. Wilkinson: Everyone in the nuclear sector (regulators, operators) professes that they are transparent, but these are just words. It is incumbent on the regulators to find out what are people's expectations regarding transparency, rather than imposing their own version of openness and transparency.

Mr. Palmqvist: It is necessary that transparency also includes participation, having regular meetings with the operator, being able of asking any questions and get answers. In Western Europe, there are good contacts with municipalities and operators. The regulators should also help municipalities and establish good relationships. People living in areas in nuclear facilities have a high amount of confidence in nuclear and they are more informed.

Mr. Lacoste: The law on transparency in France from 2006 says that any citizen has the right of to have any kind of information on safety or radiation protection. Local Information Commissions (CLI) is the forum where any kind of issue should be discussed. Half of the CLIs in France are really effective and those that are not, it is because there is no local will to have a good relationship with the operator.

Mr. Palmqvist: In GMF, some countries also have CLIs; this practice is very effective.

Mr. Lacoste: It also depends on the size of municipalities.

Mr. Striker: I would like to focus on transparency in case of an event. The first step in transparency is to recognise that it is a part of the safety culture. It is important to know what happens in a plant at all levels for all workers, to provide information even about an inconsequential event. It is important to encourage workers to provide information in order to share it.

Mr. Palmqvist: In Sweden, the process to site the final repository of spent fuel took 15 years and almost everyone who wanted to be in the process was informed. Finally, the government will not force the municipality to take it, but there were two voluntary municipalities. This is also transparency in practice.

Mr. Wilkinson: In Finland, similar repositories will be constructed. I asked the Finns if they challenge the regulator and I realised it is a completely different culture. The presumption of information being available and the disclosure of that information could be a good step forward in the nuclear sector. If information is not available, the nuclear sector could provide information of why it is not available. It would help us not to resort to the FoI Act and ask for information. We need simplicity and we cannot apply FoI in private industries, like the UK nuclear industry.

Question 2: *I would like to know how WANO can build confidence and credibility when their interests are focused on the continuous construction of new NPPS?*

Mr. Striker: WANO is not an advocate of nuclear energy, but an advocate of nuclear safety. If a company decides to build an NPP, it is the mission of WANO to help to build it safely. The primary responsibility lies with operators and the need to think and demonstrate that your first priority is to ensure nuclear safety.

Question 3: *During a crisis, it is important to disseminate information; however the accuracy of information is very low; speculation should be avoided. The public and news media request NROs to provide information on what will happen next. How do you handle it?*

Mr. Palmqvist: If an accident happens, it is important that the regulator goes to TV and not the government or the operator. The regulator has more credibility for people than the government.

Mr. Lacoste: The operator has the responsibility and is in charge of the safety of is nuclear facility.

Mr. Wilkinson: In the UK, we were told that the government were in talks with various departments very soon after Fukushima and made statements and said it would not affect the UK new build programme. It seems like a conspiracy to play down the consequences of Fukushima. The concern of a lot of greens is that all evidence about doses coming from Japan is that all doses were low. But the safety dose increased for children. Another piece of information that did not come out from Fukushima was the alpha emitters that were being discharged. I did not hear anything from alpha emitters. This adds to the concerns people have of the accuracy of information. We had to go to social media sites to hear about what people were saying about this. We should work together on this type of information and establish the truth. This means engagement and working constructively and in a collaborative way.

Question 4: *What are the different roles of elected officials? From Parliament and from local authorities? What are their interactions with regulatory authorities?*

Mr. Birraux: Parliament has a very specific role, particularly the OPECST, who are members of Parliament. The OPECST are asked for some reports on scientific issues and they have a scientific advisory committee of 24 members. For nuclear energy studies, we often set up two rapporteurs. We are at the interface with the government and with citizens. We need to know about the scientific facts in order to be able to make recommendations. Enquiries are made by public hearings, by visiting other countries, by asking information to others, etc. The safety authority is key to the recommendations made by the OPECST. For the Fukushima inquiry, we were the first to release conclusions and recommendations from stress tests. The OPECST plays an important role in public information, in increasing transparency and in public hearings.

Mr. Lacoste: For ASN, we are not reporting to the government, but to the parliament. This brings us to a fundamental question: who are the guardians?

Question 5: *Looking at the Japanese case, after the Fukushima accident, even though all the safety measures were in place, local governments are still opposing to restart NPPs. What do you think is the major role of local government in such circumstances?*

Mr. Lacoste: Local governments do not have any kind of legal role in starting an NPP.

Mr. Birraux: Every country is free to have its own political organisation and to follow its own way. We need to converge on safety and transparency.

Mr. Palmqvist: It is the regulator who takes the decision, but it is important to listen at the local level. There should be contacts and a discussion at the local level.

In summary

1. Day-to-day communication is important to build trust and transparency.
2. The regulators must be independent from other interests.
3. Involve the community and listen to critics.
4. Show empathy and caring for the people you communicate with.
5. Training is an investment in crisis communication.

Session 4

Panel on understanding respective roles of the media, NROs and industry

Chair: Ms. Alicia Montano, RTVE Spain

Co-ordinator: Ms. Marina Calvo, CSN, Spain

Speakers:

- Ms. Alicia Montano, RTVE, Spain
- Mr. Hong-Sup Cho, The Hankyoreh Newspaper, Republic of Korea
- Mr. David Crawford, The Wall Street Journal, United States
- Dr. Hans Wanner, Director-General, ENSI, Switzerland
- Ms. Annika Digreus, Sverige Radio AB, Sweden
- Mr. Juan Eibenschutz, Director-General, CNSNS, Mexico
- Mr. Jonathan Cobb, World Nuclear Association (WNA)

Session 4

Panel on understanding respective roles of the media, NROs and industry

Chair: Ms. Alicia Montano, RTVE, Spain

Nuclear energy has pros and cons. We have to ask ourselves if there is safe nuclear energy. Because Fukushima happened in the most advanced country, we had images and images of that crisis. We all wanted to be the first to tell the story and we all needed access to the greatest amount of information possible. We journalists do not always trust the information given to us. Sometimes there is reluctance among the regulators and those in the nuclear industry, to work with journalists. They think that media is in the hands of anti-nuclear lobbies.

We might think that communication was done well during the Fukushima accident but this did not prevent a growing anti-nuclear feeling. One thing is to improve communication between regulators and the media and another thing is to change opinion. I think it is not our responsibility to do that. We, media, should be rigorous and regulators should provide us with a continuous flow of transparent information. Information should be accessible continuously and not only during times of crisis. We should have an open channel to receive information. I ask myself if there is a different perception in Eastern Europe than in Central Europe or in Asia on nuclear energy.

Mr. Hong-Sup Cho, The Hankyoreh Newspaper, Republic of Korea

My presentation may shed some light for Asian countries where nuclear energy is strongly pursued by governments. The people of Korea, the closest country to Japan, experienced an unprecedented amount of fear. There was a big difference in accident reports between Fukushima and Chernobyl. Reporters had to consider the worst-case scenarios, which is something regulators would never have talked about.

I will focus on two aspects highlighted by the Fukushima accident:

- Explaining all the possible upper limits of the accident beforehand would have generated less fear among people than releasing new developments of the accident. This contributed to escalating people's anxiety.
- The nuclear regulator and the Korean government tried to relieve people's anxiety by arguing that preventing westerly winds would leave the Korean peninsula unaffected by radioactive contamination. Governments and politicians proclaimed absolute safety. However, fears of radioactive rain caused public anxiety among people. The government worried that public anxiety about radioactive contamination might create an anti-government backlash and strongly defended their scientific views that there was no harm to humans or the environment. Public anxiety was amplified. Trust towards the government was fading. The nuclear regulator should not have remained as a simple provider of facts but should have taken on the role of active communicator of these matters. The nuclear regulator should struggle within government for the benefit of public health. It was not really radioactivity that made

people fall into panic, but inappropriate communication by the government and the nuclear regulator.

Mr. David Crawford, The Wall Street Journal, United States

I covered the IAEA for the Wall Street Journal for over ten years and wanted to talk about the public relations programme. The IAEA won the Nobel Prize in 2005 and a bit of the reason for that was because of their PR work. The IAEA invited me to talk to officials and top people. They continued the open door policy and if I had questions, I could contact them directly. They have a complicated story, like the Iraq nuclear programme, but people were able to understand the difficulties they had solving it. They communicate it in an easy way. Readers want to hear these stories. The IAEA has successes and failures.

After Fukushima, there was a very different situation at the IAEA. Member states lost confidence in the IAEA's handling of the situation. People from several MS said that they had to get their own sources of information on the crisis. The IAEA was not adding value to the information that was already available via the news or particularly, by their Japanese partners. Why was that? I think it was a misguided understanding of what the IAEA's duty was in that situation (who do they serve). They think it serves its MS primarily and if you ask them to comment on MS, they would say no comment. MS sit on the board of governors and approve budget. But they also have a duty as an agency to concerned citizens. In a situation such as Fukushima, the duty to the concerned public needs to be paramount, whether you normally work together with nuclear operators or NROs, you have to look at who really needs the information.

Regarding confidentiality, there is a deep misunderstanding of when it is appropriate in respect to the nuclear industry. Information that the concerned public needs to understand, for instance, whether they should evacuate their children, should not be confidential. More information about the spread of radiation was provided by industry than by the IAEA. The IAEA said that they would only make information public if they had it confirmed (confirmed by Japanese regulator). That is inappropriate. It is absolutely essential to have information for concerned public and to make facts available to the concerned public.

Dr. Hans Wanner, Director-General, ENSI, Switzerland

Information from safety authority has to be timely, but reliable. It should not be speculative. In Switzerland, after the earthquake, national TV broadcast several programmes dedicated to Fukushima and I gave live interviews during the main news programmes. There were many special editions, every two or three hours. We tried to analyse the massive information that was around and get plausible statements. During that time, we were the undisputed experts and nobody contested what ENSI said.

During the second phase, the focus turned on Swiss NPPs. People would ask: are our reactors safe enough? The NRO became a target of suspicion. The government quickly decided on a nuclear phase-out, backed by parliament. The decision was no new build, but the remaining reactors could operate as long as they are safe. Since the NRO makes decisions about safety, ENSI played the role of referee. The problem about being a referee is that there are different political interests, which is a difficult situation to be in. In addition, anti-nuclear movements concerned about reactors like the ones in Fukushima undermined the credibility of the NRO. We had continuous attacks by the main media almost on a weekly basis. Our problem was that we were chased and always played a defensive role. There were meetings between ENSI and members of parliament, but they did not know what they were talking about. Anti-nuclear movements had occupied the information space. Another problem was that newspapers did not use our information.

We were depending on mass media and that was not acceptable, because they were setting the agenda.

ENSI wanted to pass on first-hand information directly to decision makers and stakeholders. ENSI wanted to keep the information lead. It is not just about communication. We have to take a holistic approach (issue management). We have to constantly follow what is happening at the technical and the political level. We need to anticipate problems, set the agenda and topics. We need to be proactive, transparent and offensive. Electronic media nowadays plays an important role: the journalists are under time pressure and they sometimes copy and paste information. ENSI hires journalists to work for us and write technical issues in a way that is understood. When we launch articles, we inform stakeholders personally, we call them and the media and then contact them. Communication at ENSI is not at the end of the line; we are very proactive. For this, we need a lot of resources (technical people, communication resources, etc.).

Ms. Annika Digreus, Sverige Radio AB, Sweden

If your answer to a journalist is "no comment", you will have problems when the journalist reports that. The public will draw their own conclusions and act from there.

Within half an hour after the tsunami, the reporter had already written a story from international TV channels when little was known about the effects and what was really happening. If the information is biased and poor, we still have to report it and tell our audience. We try all possible means to get information.

In Sweden, the national source of information was mainly the Swedish Radiation Authority, SSM. Three correspondents were sent to Japan.

After an accident, what does public expect from regulators? Quick and correct information: Be clear; try to translate complicate technical facts; do not underestimate the audience; provide objective and impartial information. Reporting cannot wait.

Mr. Juan Eibenschutz, Director-General, CNSNS, Mexico

Nuclear energy has many positive characteristics. Everything surrounding nuclear energy makes it a rather worrying energy source for a number of people. When there is a crisis, it does not matter if it is nuclear or not. Any kind of incident that has important consequences and the effervescence of the moment leads to a situation similar to the one brought about by Fukushima. The main concerns that people had was a direct result of the image that went around the world in which you could see the cloud and radioactivity travelling to the western coast of the United States and that it would still reach Mexico.

Some people tend to believe external sources. Explaining that radioactivity is a quantitative phenomenon is challenging. Explaining that the levels from Fukushima coming to Mexico were around background level was not credible. The challenges in communication are not exclusively nuclear.

The Media are primarily motivated by to producing news that is attractive, for professional and economic reasons. We have a challenge: the nuclear community is sort of paranoid; we are very critical of sources. It does not matter what level of safety we achieve in nuclear power plants.

Mr. Jonathan Cobb, World Nuclear Association (WNA)

We represent the industry and after the accident of Fukushima, we were the voice of the industry. In our position, we acted as an information source. We have a public website with a large number of articles. We also acted as a reference source of

information. We also have World Nuclear News (with 20,000 email subscribers). We were facing many of the same challenges as other journalists: wanting to get timely, accurate and comprehensive information. The WNA saw a massive increase in the use of our website. It was a very useful resource to have. Our roles changed during the development of the accident. At the very early stage, the requests for information focused on background information on nuclear power, nuclear power plants, the events in Japan, etc. As the accident developed, we became the voice of industry, rather than an information source. We were asked to provide interviews and tried to be open and participating. We wanted to get good information across. But as the situation evolved, we were put into the defensive role and this is quite difficult.

Social media also played a key role. Getting information across is one of the key challenges. It is a challenge for regulators and the industry to get to people and social media may help, but people have to choose to follow you. It is not the same as being quoted in mainstream press.

The press also changed during the reporting of Fukushima. In the beginning there was very good information going out, but afterwards, during the one year anniversary, it was more about personal perspectives, editorialising of the issue, rather than the facts.

Summary of discussion for Session 4

Prepared by the Secretariat

Web Question 1: *Do you believe that Latin American public opinion would accept the construction of new nuclear power plants? How does Latin American media behave with the nuclear issue?*

Mr. Eibenshutz: In theory, there will be nuclear energy in Latin America. New nuclear power plants require very high investments and a regulatory framework that requires trust. In my experience from participating in the forum of regulators in Latin America, regulatory bodies are in a good position to support nuclear energy.

Question 2: *Natural phenomena vs. nuclear accident; Tsunami: 17 000 fatalities, 20 000 missing people, 1 000 people displaced; Fukushima: no fatalities, no injured; 80 000 displaced people. Why change the priority of information between the earthquake/tsunami to the nuclear accident?*

Mr. Crawford: It is a natural reaction for people to worry about what happens in the future rather than what happens in the past. Most people in the world were not affected directly by this issue. The tsunami was over within a couple of hours. People were trying to understand: how does it affect me? After Fukushima people were surprised because the Japanese nuclear industry has very good reputation worldwide. Especially in Germany where the reason for deciding to phase out nuclear power had a lot to do with the fact that decision makers were confident that the Japanese nuclear industry was safe and all of a sudden questions about nuclear came up. The concerned public felt that it could affect them. We trusted Japan and technology and if we can no longer trust them what/who can we trust? That was the big issue raised.

Ms. Digreus: We tried to deal with the tsunami, the earthquake and the nuclear accident. As we were affected by Chernobyl accident, our audience also had memories from that.

Question 3: *How to make the speed of the information compatible with the necessary rigorousness in cases such as the Fukushima accident? Thousands of information broadcasts, the occurrence of many news items in a single day, the increasing demand from the media, the temptation to present information as spectacular?*

Ms. Digreus: There are difficulties. You always have to verify the information and underline if there is unsure information. We do not make a show of this. We try to make updates and to take information from experts, scientists and regulators.

Question 4: *Did you manage to shift the public opinion as a regulator during what you call phase 2? Did the journalists/media accept your prepared, pre-written articles? What about the independence and integrity of media?*

Dr. Wanner: At ENSI, our goal was to pass our information on from our viewpoint as a competent national nuclear safety regulator to the public. Anyone else can pass his opinion on, which may be different from the media's. We wanted to get the lead and

keep the lead and we succeeded in getting our message across, which from our viewpoint, is scientifically and technically based and correct, through our main stakeholders.

Question 5: *A good interaction will be established by news media and NRO by mutual efforts. In normal situations what efforts have you made to develop good interaction and gain sufficient knowledge of nuclear energy and radiation?*

Mr. Cobb: I think the question should be "What is the journalist doing to develop an understanding of nuclear power, so when an incident happens, how are they able to deal with it?" Perhaps it is our role to develop links with journalists and proactively ask if they want to learn more. But journalists are very busy and they cannot take time off to learn about every subject. Perhaps we can provide them with comprehensive and succinct information, and provide them with the essential points they need to know about in a short amount of time. Our information papers are very long and comprehensive. This can be a strength because they are very detailed, but also a weakness. But, do journalists want to develop links with parties? Because they can be accused of becoming too close to the people they are reporting on. It is a tough decision for journalists - how close can they be to the parties on any subjects.

Mr. Crawford: I do not think it is the job for journalists to try to educate themselves in advance to cover any story that needs to be covered. As a journalist you would never be able to know as much as an expert or a regulator. As a journalist you have to be able to identify very quickly who are the experts, who can help me understand this story very quickly, who would be credible as far as our listeners are concerned. We also have to try and look at all sides of the situation and talk to critics and supporters, so that the consumers of information and the readers can make their own decision. We have to provide factual, impartial information that is easy to understand. It is the job of journalists to figure out who can help quickly and who is understandable. Often the most credible sources of information are people from universities, people from other areas who may not have a direct interest in the issue.

Mr. Eibenschutz: This is an important question because it all comes down to the lack of credibility or the lack of validation of credibility from the sources. During the Fukushima accident, journalists were interviewing people from universities, who know the basics of nuclear energy, but have no idea how a reactor operates. People seem to be credible because they work at university, but it is important to make sure that the sources the media uses are knowledgeable. Nuclear regulators tend to lose credibility because they are nuclear experts and they can be accused of being linked to the people they want to check. When the US NRC was re-structured, some people from civil society said that the regulator should have non-knowledgeable staff, because they had to make sure there were no vested interests. This goes back to the question of what sources should media use to make sure that the information is correct?

Question 6: *Do you think there was a different perception from Western media compared with media from other countries (China, Korea, India, Russia…)? Could you tell us how the Korean press presented the station black out at Kori NPP last April which has been hidden for one month: operator point of view, regulator point of view, government point of view? More generally, how the press may get timely information from the industry?*

Mr. Cho: I do not think there is a fundamental difference between media, but the environment is different. In Eastern Asian countries, the nuclear industry is flourishing and has people's support. It has to do with culture and socio-economic background.

After Fukushima, people's concern about operating NPPs has been quite high. One NPP, the oldest of which began operation in 1978, had a problem that was covered up and was disclosed by the media. It made some headlines. Now the investigation is going on.

This is a normal procedure in Korea and other countries: the on-going check and control is working.

Question 7: *Have you got used to the fact that the future plants will be built in Asia and not in Europe?*

Mr. Cobb: At the moment, the majority of reactors under construction are in Asia, especially India and China. This reflects the energy policy and energy demand, which is rising quickly, and the economic situation. In Europe, we see that the effects of the global recession and power demand are decreasing. There is an on-going programme in the UK and there are proposals to have a growing amount of nuclear energy. Despite the events in Fukushima, I still believe nuclear energy has many advantages.

Dr. Park: Let me come back to the recent event in Korea. In February 2012, Unit I of Kori NPP was under refilling mode, so the reactor was completely shut down and there were some tests to check the functionality of a component. There was a misconduct of test personnel and he/she had some intention of violation of the procedure. There was a station black out. Those accidents occurred during the night. The management tried to cover the incident instead of reporting it and recording it. One month later, the operator was obliged to disclose the information. The regulator was not informed beforehand. They ordered the reactor to shut down. The NRO conducted a serious investigation. The people involved in this accident are being prosecuted.

Ms. Montano: Some people believe that the problem with nuclear reactors is more an economic question than a technical one. Nuclear plants produce energy at a higher cost than gas plants, for instance. Maybe nuclear reactors operate in an economical way, but only in the long term.

Mr. Cobb: The majority of costs of nuclear generation are the capital costs. There are very few fuel costs. The investment needed to make are at the start up, project and construction phases, rather than the on-going operational costs. This is an advantage because NPPs are much less vulnerable to dramatic changes in fuel prices. It gives an element of certainty in energy policy and energy supply. In terms of costs, it is partly because we do not have a fair pricing of environmental impacts on fossil fuel. Costs are not only about money but also about environmental costs and social costs. Countries that have decided to switch from nuclear power to fossil fuels often disregard this, for example, what is the pollution caused by this? What are the costs of imports caused by this? There will be impacts to the environment and the economy.

Question 8: *Would anybody like to venture if Japan will in the future switch its reactors back on?*

Mr. Watanabe: The energy situation in Japan is a special one. Japan had serious problems regarding its credibility, not only with regard to Fukushima. When you lose trust, it is extremely difficult to recover it. Maybe TEPCO is going to be nationalised and this would allow credibility would be recovered.

Mr. Lacoste: I think that no one from another country should answer a question of national energy policy.

Question 9: *Would any representative from Japan like to have a say?*

Mr. Watanabe: Mr. Lacoste is correct. This is not the place to talk about national energy policy. I would like to make a comment on the question of credibility. We have to admit that the credibility of NROs has fallen to the floor. There are two aspects to consider: communication between authorities and citizens. Another more important aspect is that we can protect the lives of citizens. We were not able to prevent the accident. We bear this enormous burden that we were unable to avoid the accident and

as a result, 86 000 people are now forced to live outside the evacuation zone. We were unable to protect the lives of these people. In the near future, we will have a new NRO set up and will have more power to oversee the situation.

In summary

1. To foster public confidence, NROs need to be clear about the range of possible scenarios in a crisis situation, including worst case scenarios.
2. The role of NROs is not just to relay factual information, but to communicate actively on all aspects of the crisis.
3. NROs should avoid assuming a defensive stance during crisis situations.
4. In a crisis situation all stakeholders need to be flexible and aware that their traditional roles may change.
5. Regional differences need to be taken into account.

Session 5

Need for a global approach to NRO crisis communication

Chair: Mr. Mike Weightman, HM Chief Inspector, ONR, United Kingdom

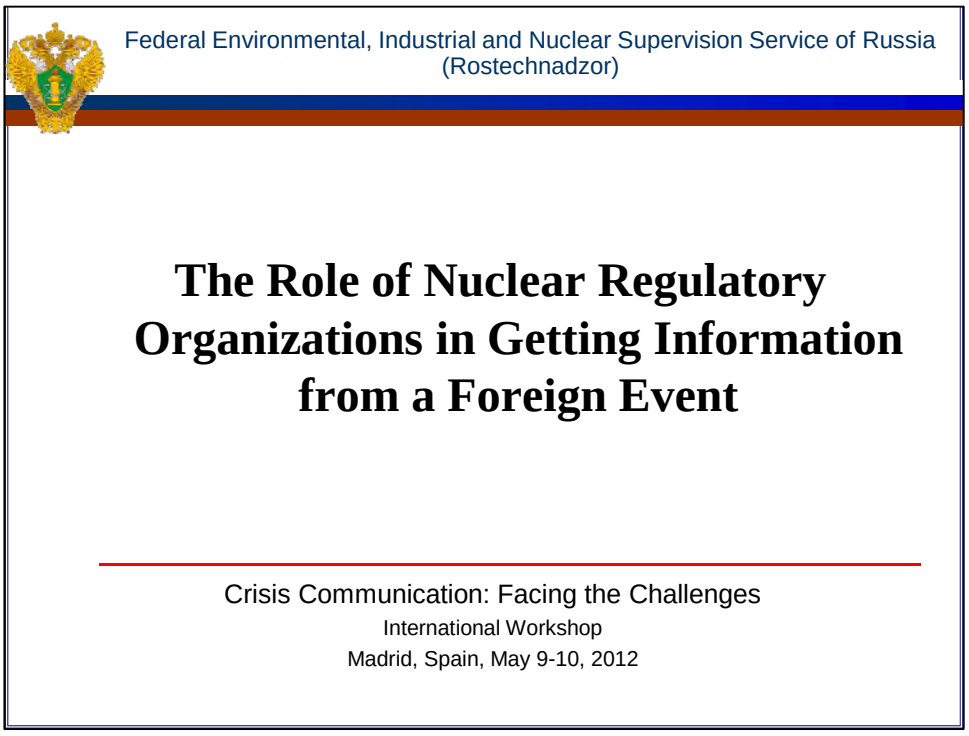
Co-ordinator: Ms. Sue Kelly, ONR United Kingdom

Speakers:

- Mr. Nikolay Kutin, Chair, Federal Environment, Industrial and Nuclear Supervision Service of Russia, Russian Federation
- Mr. Jean-Christophe Niel, Director-General, ASN, France
- Mr. Denis Flory, Deputy Director-General, Head of Safety and Security Department, IAEA
- Mr. Andreas Molin, Federal Ministry for the Environment, Austria, Vice-chair of ENSREG

The role of NROs in getting information from a foreign event

Mr. Nikolay Kutin, Chair,
Federal Environment, Industrial and Nuclear
Supervision Service of Russia, Russian Federation



Federal Environmental, Industrial and Nuclear Supervision Service of Russia (Rostechnadzor)

Content

1. International mechanisms regulating issues related to notification of neighboring states of events at nuclear power plants.
2. National contact points and regulatory authority.
3. Tasks for the state in responding to an accident in a neighboring state and the role of the regulator in addressing these tasks.

2

Federal Environmental, Industrial and Nuclear Supervision Service of Russia (Rostechnadzor)

International mechanisms regulating issues related to notification of neighboring states of events at nuclear power plants

The issues of information exchange between the countries in the event of nuclear or radiation accidents (also at NPPs) are governed by the

1986 Convention on Early Notification of a Nuclear Accident.

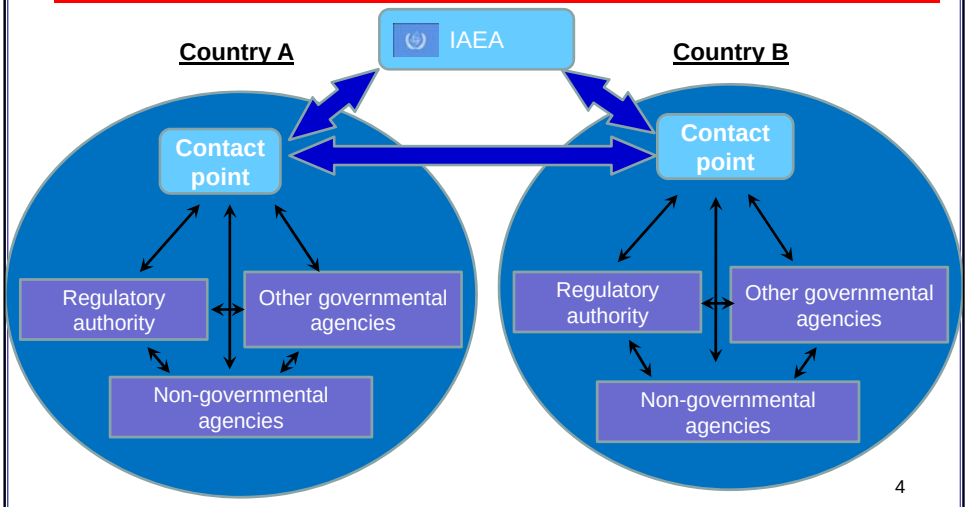
The issues of assistance are governed by the

1986 Convention on Assistance in the Case of Nuclear Accident or Radiological Emergency.

3

Federal Environmental, Industrial and Nuclear Supervision Service of Russia (Rostechnadzor)

International mechanisms of notification of nuclear accident



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Federal Environmental, Industrial and Nuclear Supervision Service of Russia (Rostechnadzor)

International mechanisms regulating issues related to notification of neighboring countries of NPP events

Under the Convention on Early Notification of a Nuclear Accident, the notifying State Party shall provide relevant information (time, exact location, nature of nuclear accident, facility or activity involved, results of environmental monitoring and forecast, etc.) available at the time of transmission.

5

Federal Environmental, Industrial and Nuclear Supervision Service of Russia (Rostechnadzor)

The national contact point and the regulatory authority

The State Atomic Energy Corporation ROSATOM is a competent authority and contact point implementing the commitments of the Russian Federation under the Convention on Early Notification of a Nuclear Accident and the Convention on Assistance in the Case of Nuclear Accident or Radiological Emergency.

The regulatory authority is not a contact point in the Russian Federation under the Convention on Early Notification of a Nuclear Accident.

6

Federal Environmental, Industrial and Nuclear Supervision Service of Russia (Rostechnadzor)

The national contact point and the regulatory authority

The State Atomic Energy Corporation ROSATOM has a situation and crisis center (SCC).

SCC exchanges information with nuclear safety regulatory authorities among others.

SCC is an integral part of the unified state system of emergencies prevention and mitigation (USSEPM).

RSE covers all the territories (regions) of Russia and has its territorial and branch units.

The National Emergencies Management Center (NEMC) of the Ministry of the Russian Federation for Civil Defense, Emergencies and Elimination of Consequences of Natural Disasters (EMERCOM of Russia) manages USSEPM on a daily basis.

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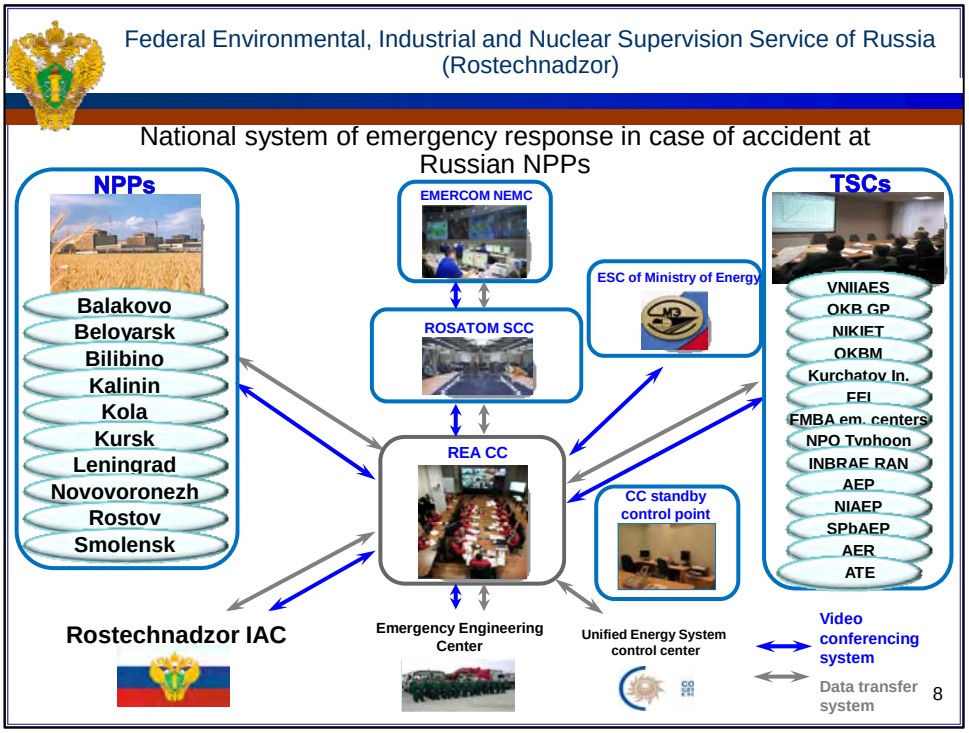
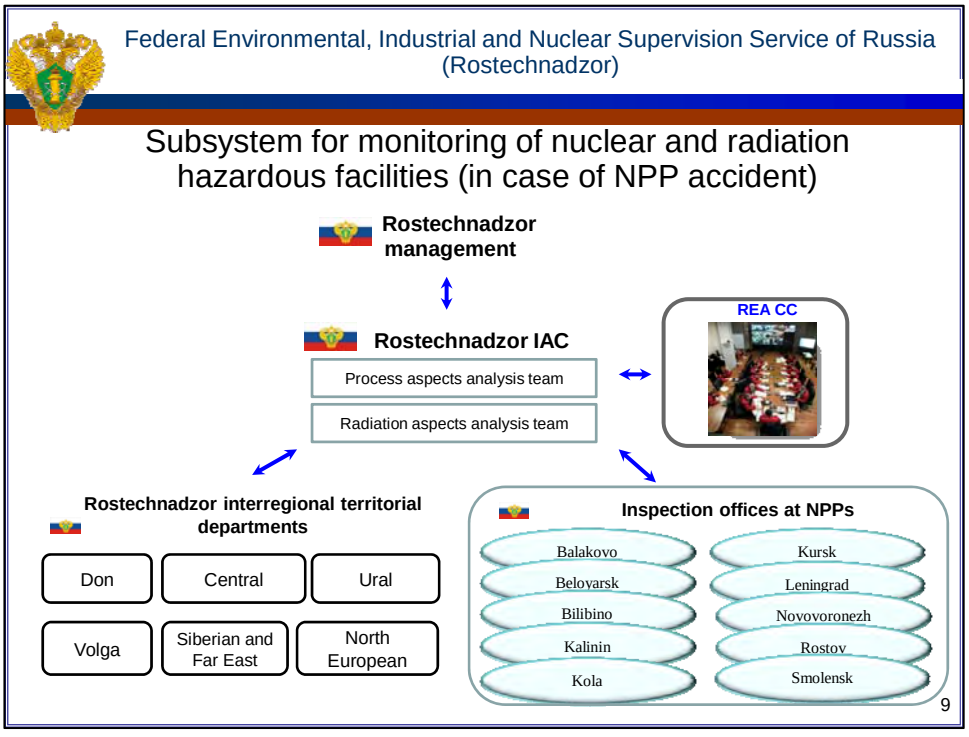
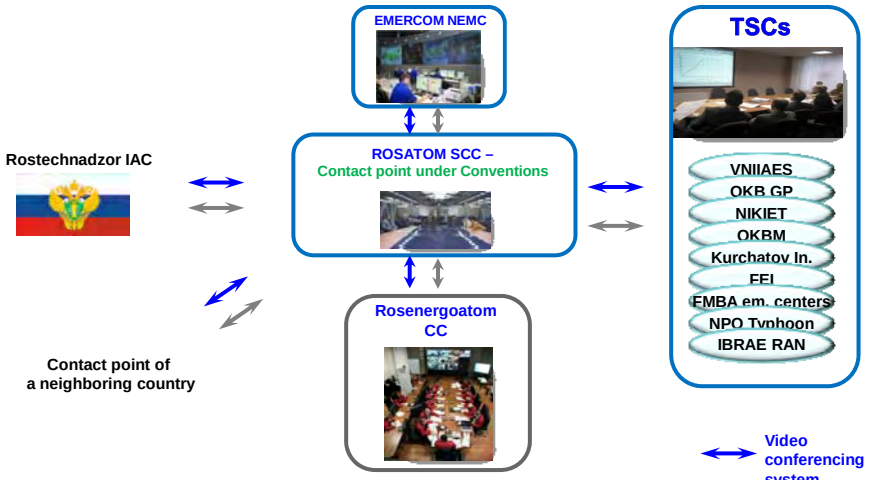

Federal Environmental, Industrial and Nuclear Supervision Service of Russia (Rostechnadzor)
National system of emergency response in case of accident at Russian NPPs
NPPs
Balakovo
Beloyarsk
Bilibino
Kalinin
Kola
Kursk
Leningrad
Novovoronezh
Rostov
Smolensk
EMERCOM NEMC
ROSATOM SCC
REA CC
ESC of Ministry of Energy
CC standby control point
TSCs
VNIIAES
OKB GP
NIKIET
OKBM
Kurchatov In.
FEI
EMBA em. centers
NPO Typhoon
INBRAE RAN
AEP
NIAEP
SPbAEP
AER
ATE
Rostechnadzor IAC
Emergency Engineering Center
Unified Energy System control center
Video conferencing system
Data transfer system
8


Federal Environmental, Industrial and Nuclear Supervision Service of Russia (Rostechnadzor)
Subsystem for monitoring of nuclear and radiation hazardous facilities (in case of NPP accident)
Rostechnadzor management
Rostechnadzor IAC
Process aspects analysis team
Radiation aspects analysis team
REA CC
Rostechnadzor interregional territorial departments
Don
Central
Ural
Volga
Siberian and Far East
North European
Inspection offices at NPPs
Balakovo
Beloyarsk
Bilibino
Kalinin
Kola
Kursk
Leningrad
Novovoronezh
Rostov
Smolensk
9

Federal Environmental, Industrial and Nuclear Supervision Service of Russia (Rostechnadzor)

Emergency response in case of accident at foreign nuclear facilities



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Federal Environmental, Industrial and Nuclear Supervision Service of Russia (Rostechnadzor)

The national contact point and the regulatory authority

Within USSEPM, the regulatory authority has a possibility to receive information from a neighboring country (via Rosatom SCC) and information on radiation situation in the territory of the Russian Federation from the unified state automated system of radiation situation monitoring (USASRSM).

11

Federal Environmental, Industrial and Nuclear Supervision Service of Russia (Rostechnadzor)

What is required from response system when nuclear (radiation) accident occurs in a neighboring state?

1) Be aware of the current level of radiation impact;
2) Forecast changes in radiation situation; for these purposes it's necessary to:
   a. be aware of radiation release parameters and their variation;
   b. forecast changes in hydrometeorological conditions.
3) Take effective actions to notify and, if necessary, protect the public.

The regulatory authority is able to take an effective part in fulfilling these tasks.

12

Federal Environmental, Industrial and Nuclear Supervision Service of Russia (Rostechnadzor)

Involvement of regulatory authority in response to accident in neighboring state (Fukushima as an example)

Task1. Evaluation of current level of radiation impact in its own country

Rosgidromet continuously monitored radiation situation in the Far Eastern territory of Russia within USASRSM and forecast variation of hydrometeorological conditions.

Rostechnadzor carried out independent analysis of information from USASRSM and submitted its assessments to USSEPM.

13

Federal Environmental, Industrial and Nuclear Supervision Service of Russia (Rostechnadzor)

Involvement of regulatory authority in response to accident in neighboring state (Fukushima as an example)

Task 2. Forecasting changes in radiation situation in its own country

Rostechnadzor along with its TSO – SEC NRS (in association with Rosgidromet) carried out:

a. forecast of changes in hydrometeorological conditions on the basis of hydrometeomodels with satellite and other weather data in real time;

b. evaluation of radiation release parameters by conservative simplified models allowing proximate assessments;

c. forecast of changes in radiation release parameters based on behavioral analysis of processes; incoming information on actual release parameters and radiation monitoring data, as well as changes in accident scenario were taken into account.

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Federal Environmental, Industrial and Nuclear Supervision Service of Russia (Rostechnadzor)

Involvement of regulatory authority in response to accident in neighboring state (Fukushima as an example)

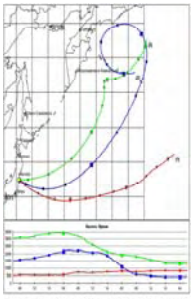
Task 3. Protection and notification of the public.

Rostechnadzor provided its independent assessments of radiation situation and forecast of its variation to USSEPM, and carried out monitoring of the correctness of the authorized bodies' (within USSEPM) decisions concerning (the absence of) the need of taking actions to protect the public.

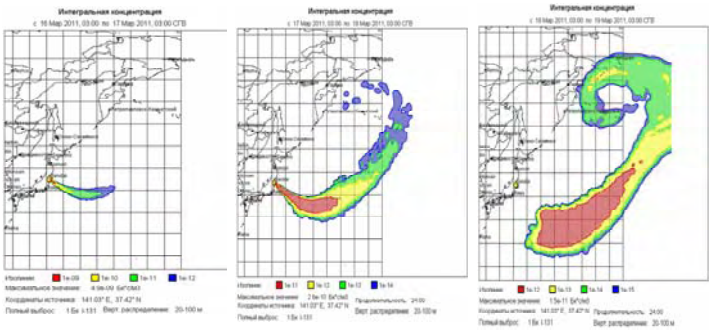
15

Federal Environmental, Industrial and Nuclear Supervision Service of Russia
(Rostechnadzor)

Involvement of regulatory authority in response to accident in neighboring state (Fukushima as an example)



Paths of spread of air masses from accident area at 500, 1500 and 3000 meters above ground



Spread of integral near-surface concentration after explosion at Unit 2

Day 1 **Day 2** **Day 3**

16

Federal Environmental, Industrial and Nuclear Supervision Service of Russia
(Rostechnadzor)

Conclusions

The regulatory authority may take different standings in the state system of response to emergencies in the neighboring states.

The regulatory authority should have necessary competence (relevant specialists, computer codes, etc.), and rapid communication means to receive objective information in order to form its own independent opinion about an accident, radiation situation and forecast of its variation.

The regulatory authority shall provide the Government and national authorities in charge of emergency response with objective information to enable them to take decisions needed to protect the public, as well as answer questions coming from members of the public in the existing situation.

17

Crisis communication consistency amongst NROs

Mr. Jean-Christophe Niel, Director-General, ASN, France

Crisis communication consistency amongst NROs

Jean-Christophe Niel / French Nuclear Safety Authority (ASN)

1

Nuclear events and information: some findings

- A nuclear event has an international dimension
- Strong collective concerns
- High media pressure

- A lot of requests from the general public and stakeholders
- Prevalence of health and environmental issues
- Political involvement at national and international level
- Multiple information sources

Nuclear events and information: NRO responsabilities

- In the case of an emergency, NROs have several responsibilities

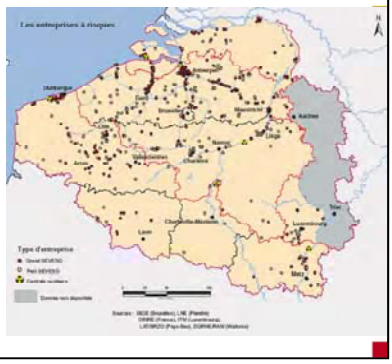
  ⇨ Major role in crisis communication

- In case of event with consequences in several countries, necessity for NRO's to :
  - Deal with many sources of information
  - Cope with other NRO's technical decisions/assessements

    Add crisis in communication to technical crisis

    ⇨ Disbelief in decisions

    Mistrust in regulatory organisation



Communication consistency amongst NROs…

… lessons learned from 3 past events

- **Harmonization of iodine prophylaxis – 2006 (emergency preparedness)**

- **Industrial accident at Centraco facility – 12 September 2011 (crisis without radiological issues)**

- **Fukushima accident – 11 March 2011 (crisis with radiological issues)**

4

Harmonization of iodine prophylaxis

- Inconsistencies in protective actions

⇨ Share preparation to emergency situation is a good practice

- Exchange of information: 1st step of harmonization of protective actions
- Contribution to harmonization of protective actions:
  - Multilateral, HERCA
  - Bilateral arrangements between France and neighbouring countries (B, G, L, S) in the event of an emergency
- Harmonization of iodine prophylaxis in Europe: concrete progress

5

Harmonization of iodine prophylaxis

- Expert group: Belgium, France, Germany, Luxembourg and Switzerland
- Harmonized strategy
  - **Common references:**
    - One critical group: between the unborn child and 18 years old;
    - One intervention level : thyroid projected dose of 50 mSv;
    - Same tablets of potassium iodine (65 mg KI) and same dosage;
    - Early stage: initial dose assessment given by the country where the accident takes place.
  - **Common preventive actions:**
    - Preventive distribution around NPPs;
    - Regular information campaigns, harmonized leaflets.

6

Industrial accident at Centraco facility

- September, 12, 2011 11:45 AM, Paris time (9:45 UTC)
- Serious accident with no radiological issues
- « Panic effect »: school sheltering; media: « *nuclear explosion in a NPP* »
- Strong media coverage; political involvement
- ASN activated its emergency center:
  - Limited technical issues
  - Many demands of information (media, NROs)

- 2 press releases in French at 2 and 4 PM.
- 2 press releases in English at 4 and 5 PM to bilateral contacts, ENSREG, WENRA, HERCA, IAEA and ECURIE networks.
- Calls with IAEA, ENSREG, WENRA and others NROs…

7

Industrial accident at Centraco facility

End of the event at Centraco (Gard) : press release #2

Paris, September 12 2011

Information notice

The event that occurred this morning at Centraco, nuclear installation located near the Marcoule site (Gard) is considered as closed.

- Events on nuclear facilities, even without radiological issues, are significant for the media.
- Quick information to NROs is essential
- Clear statement as practicable

8

Fukushima accident

- **ASN's role :**
  - Get information
  - Deliver information to the public and the media
  - Advise the French government

Fukushima accident

GET INFORMATION

- IAEA (ENAC and USIE system; regular status)
- European level (ECURIE system: decisions of MS - management of the import of consumer goods, food…)
- Informal contacts with Japanese colleagues
- No direct relations with Japanese emergency center (avoid burden)
- Regular contacts with foreign Authorities (mainly at the european level): regular bilateral meetings; phone calls, e-mails
- Daily audio conference with ASN's TSO (IRSN), French Embassy in Tokyo, …
- Daily audio conference with NRC (USA), ONR (UK), (CNSC) (Canada)

10

Fukushima accident

PROVIDE INFORMATION

- Huge media pressure (around 1 500 demands)
- Address the public concerns
- Wide range of questions coming from many stakeholders
- Difficulty to maintain our crisis organization over the long term
- Issuing documents in French and English
- Need to synthesize information
- Inform with openness, regularity and honesty
  - *between Three Mile Island and Chernobyl*
  - *damage to the core*

11

Tentative conclusions

- **"Technical" consistency amongst NROs: an objective**
- **Nuclear event: "think global"**
  - Emergency preparedness
    - Harmonize protective actions and promote exchanges among regulators (role of networks such as HERCA)
    - Bi or multilateral arrangements to enhance technical and information coordination between NROs
    - Prepare the mutual assistance between the emergency centers
    - Training: exercises with neighboring countries including communication aspect.

12

Tentative conclusions

- **Nuclear event: "think global" (cont'ed)**
  - Emergency situation
    - Exchange of information between NROs (bilateral arrangements, international and European notification tools, professional network – including HERCA, NEA, ENSREG, WENRA,… call conferences)
    - Coordination between States through IAEA and the EC
  - Feedback at international scale

13

Communication aspects of the IAEA's response to the accident at Fukushima NPP

Mr. Denis Flory, Deputy Director-General, Head of Safety and Security Department, IAEA

Safety History: from Chernobyl to Fukushima

- Acceleration in development of safety standards, guidelines and services to assist countries affected
- Adoption of the Notification and Assistance Conventions (1986), and of the Convention on Nuclear Safety in 1994
- Department of Nuclear Safety was created a decade later
- 25 years later: Fukushima

"…Radioactivity does not respect national boundaries, or national sovereignties. Rules ensuring the safe use of large-scale nuclear activities should therefore be worked out internationally and accepted to apply everywhere…."

Hans Blix,
former IAEA Director General

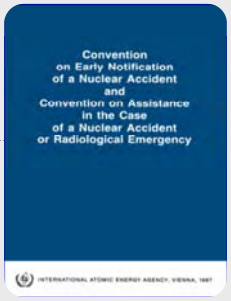
Security History: 9/11

September 11, 2001 aftermath of terrorist attack:

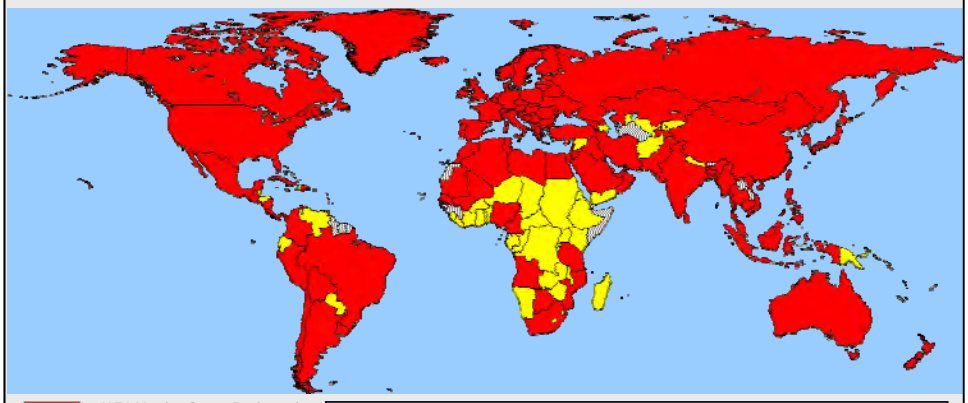
- Security risks from outside groups or insider threats became of paramount concern surrounding nuclear power plant critical infrastructure
- Questionable whether reactors would withstand such attacks
  - 2003 Office of Security
  - Amendment of the CPPNM launched in 1998, adopted in 2005, in Force: 20??
- Lessons from Fukushima?

Convention on Early Notification of a Nuclear Accident

- Strengthens the international response for nuclear accidents by providing a mechanism for rapid information exchange in order to minimize radiological consequences
- Applies in the event of any accident involving specified facilities or activities of a State Party from which a release of radioactive material occurs or is likely to occur and which has resulted or may result in an international trans-boundary release that could be of radiological safety significance to another State.



Early Notification Convention



IAEA Member States, Parties to the Convention

IAEA Member States, not Parties to the Convention

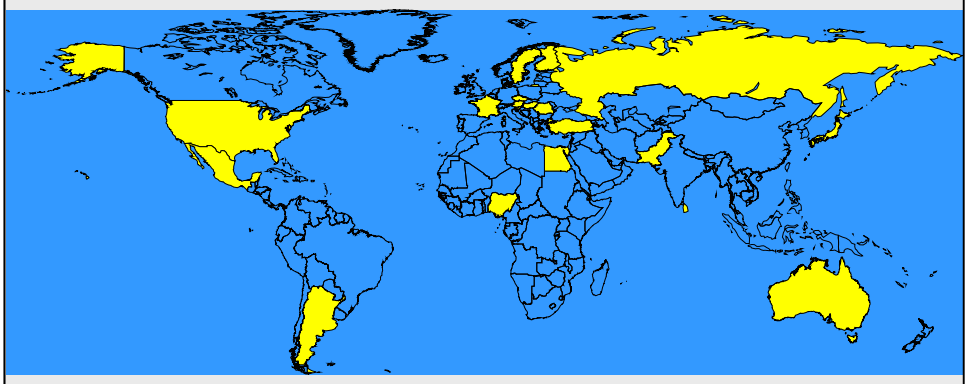
States, not IAEA Members, not Parties to the Convention

151 Member States
114 Parties including
FAO, WMO, WHO & EURATOM
(April 2012)

Notification Convention
Response Obligations

- Forthwith notify potentially affected States and relevant international organizations
- Promptly provide additional information
  - time, location and nature of event
  - facility or activity involved
  - assumed or established cause
  - general characteristics of radioactive release
  - meteorological conditions
  - monitoring data
  - protective actions, and
  - predicted behavior of radioactive release

Countries Registered in RANET



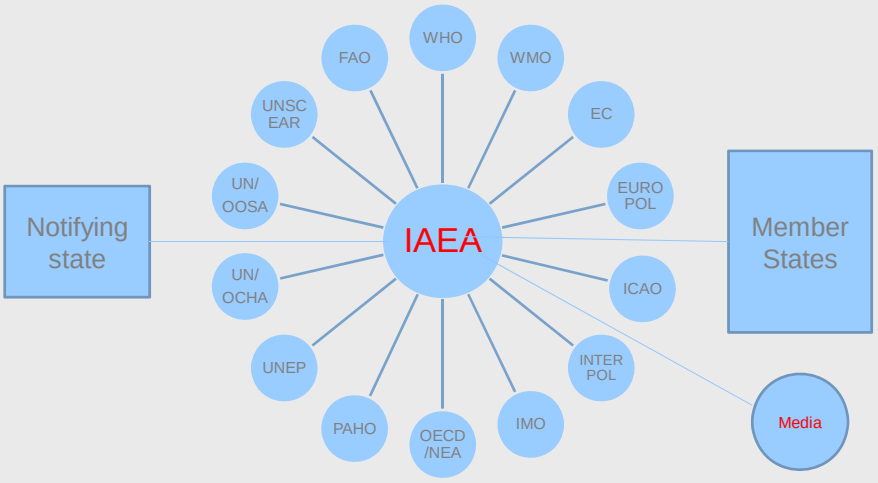
Registered Member States

8

The Information Flow

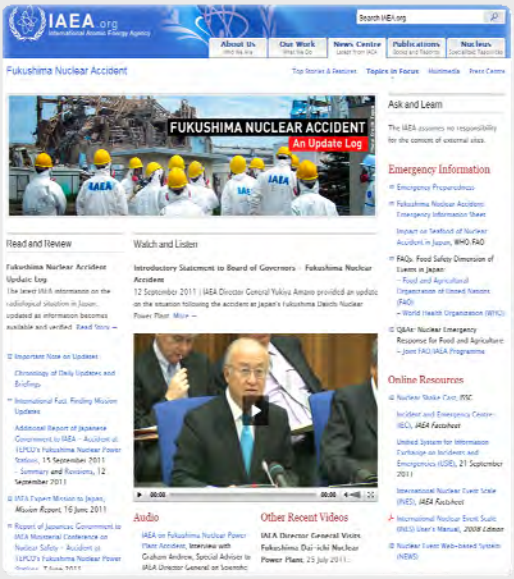
Competent authority in Notifying State → IAEA Secretariat → Member States/ International Organizations

The 'Joint Plan'



IAEA Incident and Emergency Centre

Fukushima Nuclear Accident: Update Log



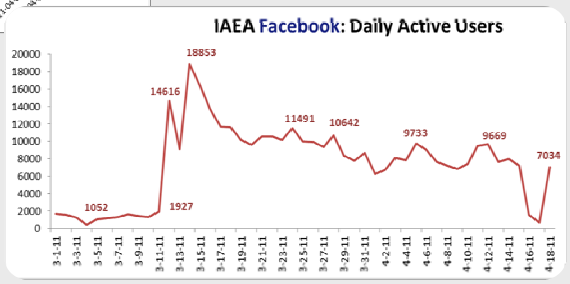
The Challenges…

Exploding Demand

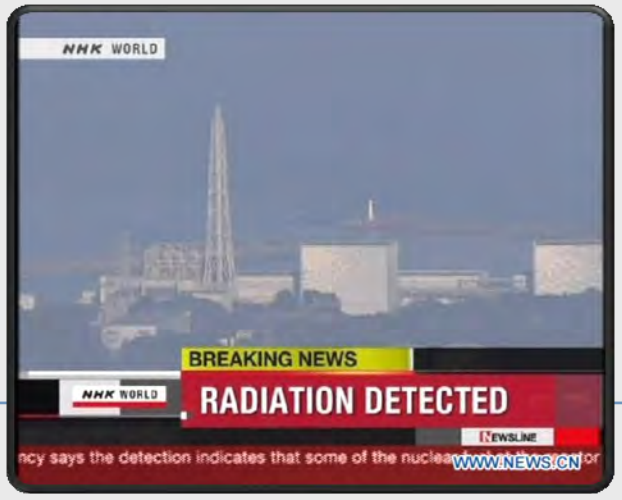
The IAEA Response

- 24/7 public info staffing, 11 March-22 April
- Thousands of phone calls (media/public)
- Thousands of e-mails (media/public)
- >120 update reports from IEC
- >260 updates to www.iaea.org
- Daily (later weekly) media briefings

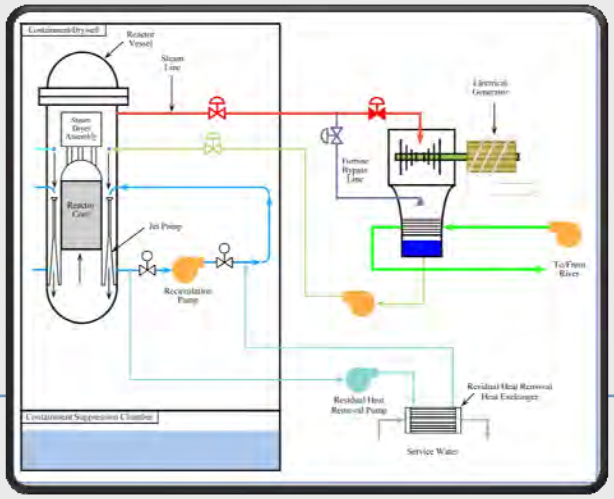
The IAEA as a Reference for the Public



The Information Race

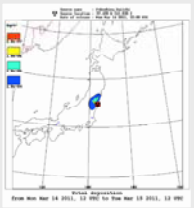


The Need to Explain



MS/Press Briefings

- Daily/Weekly MS Briefings
  - Status of Fukushima Daiichi NPP
  - Radiological Status on site and off site
  - Marine monitoring
  - Food monitoring



An Independent View…

Lessons Learned

IAEA Action Plan on Nuclear Safety

'Enhance transparency and effectiveness of communication and improve dissemination of information'

"The IAEA Secretariat to provide Member States, international organizations and the general public with timely, clear, factually correct, objective and easily understandable information during a nuclear emergency on its potential consequences, including analysis of available information and prognosis of possible scenarios based on evidence, scientific knowledge and the capabilities of Member States."

MAKING NUCLEAR POWER SAFER
The IAEA Action Plan

Communication and Dissemination of Information

Action Plan

- Strengthen the emergency notification system
- Enhance the transparency and effectiveness of communication among operators, regulators and various international organizations
- Review application of INES scale as a communication tool
- Organize international experts meetings (IEMs)

Key Achievements

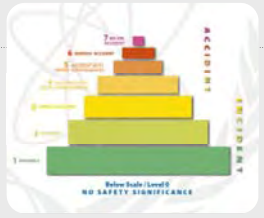
- International Experts' Meetings IEMs
  - ✓ Reactor and Spent Fuel Safety March 2012
  - ✓ Transparency and Communication June 2012
  - ✓ Remediation and Decommissioning March 2013
  - ✓ Seismic and Tsunami Hazards Sept 2012

Ministerial Conference on Nuclear Safety December 2012
Effective Regulatory Systems Conference Canada April 2013

MAKING NUCLEAR POWER SAFER
The IAEA Action Plan

Communication and dissemination of information

- INES as a communication tool did not play its role: it should be reviewed and improved to make it more effective
- Action Plan: "…review of INES as a communication tool…":
  - ✓ hence no changes in number of levels and criteria
  - ✓ identified issues related to applying methodology for severe, complex and evolving event
- Secretariat with support of INES Advisory Committee and NEA as cosponsor, is developing additional guidance on use of INES in severe accidents



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Lessons Learned

- "Universal implementation of the IAEA Safety Standards on emergency preparedness and response at the national level would improve preparedness and response, **facilitate communication in an emergency** and contribute to harmonization of national criteria for protective and other actions." (Ministerial conference summary)
- The implementation of the Action Plan on Nuclear Safety already allows the Secretariat to widen its communication Mandate;
- Review of Early Notification & Assistance Conventions (including implementation mechanisms) are expected to strengthen information and communication capabilities.

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Global approach to NRO crisis communication, do we need a European solution?

Mr. Andreas Molin, Federal Ministry for the Environment, Austria,
Vice-chair of ENSREG

Crisis Communication: Facing the Challenges

Who is …

ENSREG
European Nuclear Safety Regulators Group

- Established by Commission Decision in 2007 as High Level Advisory Group on Nuclear Safety and Waste Management
- Comprises top regulators and senior civil servants from all 27 Member States as well as a Commission representative on equal footing (consensus principle)
- Three working groups
  - WGNS (nuclear safety)
  - WGWM (waste, spent fuel & decommissioning)
  - WGTA (transparency)

International Workshop
Madrid, Spain,
9-10 May 2012

Crisis Communication: Facing the Challenges

Major outcome

ENSREG
European Nuclear Safety Regulators Group

- Advice on draft directives
  - Framework for the nuclear safety of nuclear installations
  - Framework for spent fuel & nuclear waste management
- Guidance on the implementation of these Directives
- Better use of International Conventions
- First Regulatory Conference (June 2011)
- Stress tests
- Website **www.ensreg.eu**

International Workshop
Madrid, Spain,
9-10 May 2012

Crisis Communication: Facing the Challenges

WGTA Improving in Transparency Arrangements

ENSREG European Nuclear Safety Regulators Group

- Responsibility for ENSREG Website
- Working Paper - Current Community and International Law with Relevance to Transparency - HLG_p(2009-09)_31
- Principles for Openness and Transparency - HLG_p(2011-14)_57
- Working Paper - Transparency of "Stress Tests" - HLG_p(2011-16)_80

- Right balance between transparency and security is our crucial challenge

International Workshop
Madrid, Spain,
9-10 May 2012

Crisis Communication: Facing the Challenges

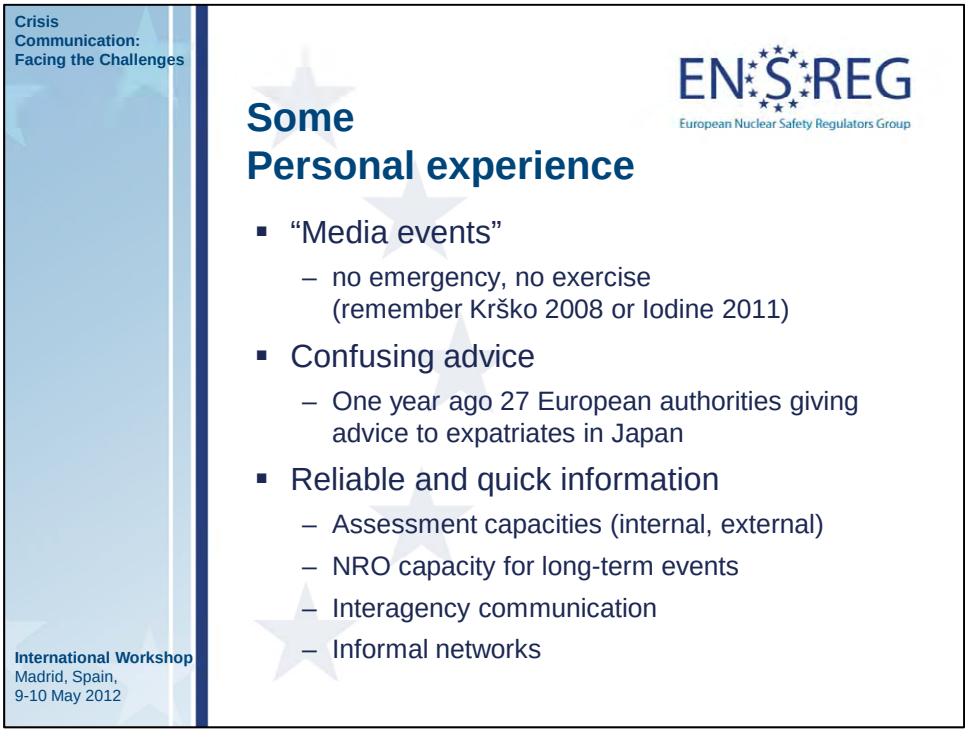
ENSREG European Nuclear Safety Regulators Group

WGTA Contacts with other Groups

- ENEF WG "Information & Transparency
  - "Liaison Officer"
- OECD NEA CNRA WGPC (Working Party on Public Communication of Nuclear Regulatory Organizations)
  - Overlapping membership
- "Aarhus and Nuclear" (ANCCLI – EC)

International Workshop
Madrid, Spain,
9-10 May 2012


Crisis Communication: Facing the Challenges
ENSREG
European Nuclear Safety Regulators Group
Crisis Communication
A European solution ?
Council Directive on informing the general public … in the event of a radiological emergency (89/618/Euratom)
Commission communication on the implementation …. (91/C 103/03)
ECURIE, USIE, bilateral agreements
DO WE REALLY NEED MORE ???
International Workshop
Madrid, Spain,
9-10 May 2012


Crisis Communication: Facing the Challenges
ENSREG
European Nuclear Safety Regulators Group
Some
Personal experience
"Media events"
no emergency, no exercise (remember Krško 2008 or Iodine 2011)
Confusing advice
One year ago 27 European authorities giving advice to expatriates in Japan
Reliable and quick information
Assessment capacities (internal, external)
NRO capacity for long-term events
Interagency communication
Informal networks
International Workshop
Madrid, Spain,
9-10 May 2012


Crisis
Communication:
Facing the Challenges
ENSREG
European Nuclear Safety Regulators Group
Need for global approach ?
Do we need a European Solution?
Can we create a "perfect" system?
Can we improve the situation?
Thank you for your attention!
International Workshop
Madrid, Spain,
9-10 May 2012

Summary of discussion for Session 5

Prepared by the Secretariat

Question 1: *After your experience in social media during the Fukushima crisis, what should the ASN do to improve in the future? Could you explain the lessons you learned when communicating with public via social media?*

Mr. Niel: The main duty of ASN was to get information and provide information. The ASN developed a blog, used social media (Facebook and twitter) the internet and traditional media (press, TV, radio). The ASN organised a press centre (which they did not have) the first day of the accident. The ASN had a daily press conference (two-a-day), permanent news TV, and answering journalists. The ASN developed a specific site accessible on the ASN's website dedicated to Fukushima with timely information and in English as much as possible. The challenge is how to maintain this level of organisation for a long lasting accident.

Question 2: *Did the IAEA see a proactive role in informing/sharing messages with the communication professionals in the MS? I am very interested here in communication information sharing, not operational information sharing, on a global NRO scale.*

Mr. Flory: The first task of the IAEA was to communicate with MS and also with the press. Small countries did not have any assessment or measurement capacity and had expectations of the IAEA. They worked with international organisations and since then, the IAEA has strengthened links with WANO through a memorandum of understanding. The IAEA is improving and strengthening its role with other organisations. The IAEA needs to bring us closer together through the use of safety standards. One of the key issues is that different countries use different standards.

Mr. Wilkinson: Monitoring is critical in a crisis, but we have not heard about the impact of the exposure: how many incidents of cancer might there be? Genetic impacts? This would damage industry and calculating health impacts is an imprecise science. But, then why should the public believe the regulators more than other groups of experts? Shouldn't this be an area that regulators concentrate more on rather than just monitoring?

Mr. Flory: The effect of radioactivity on the body is not an exact science and there is no definitive scientific model about the effects. It will be an effect of low level of radiation. What is needed is more research on that. There is a need to strengthen safety in radiation protection and globally on a sound scientific knowledge. When there is a discrepancy between regulation and good science, you are in trouble.

Mr. Niel: Trust cannot be imposed, but should be constructed. Trust can only be based on rational things, facts and science, but it also must be built through transparency and involvement.

Mr. Wilkinson: Unless you acknowledge that science is imprecise, you can create a vacuum and then other people fill in this vacuum. This can create confusion in the face of a crisis.

Question 3: *What about the enforcement of miscommunication? What are the impacts on liability? Is there a way in which there is some enforcement associated with miscommunication?*

Mr. Flory: The IAEA is just the secretariat for 155 Member States. There is no liability on the IAEA. The fact that Japan was not a member of a global liability regime certainly did not help Japan. One of the actions of the nuclear action plan is certainly to increase the liability regime.

Mr. Molin: As a civil servant, there are rules for my behaviour, if I misinform, there are consequences.

Ms. Carmen Martínez Ten: NROs exist to deal with risks and an important part is the obligation to provide society with information on these risks. The situation has evolved a great deal over the last ten years and we talk about a globalised community and communication is not only an obligation, but also a logical consequence of our work. Although NROs are a bit different from other regulators, there are agencies involved in food, pharmaceutical, chemical risks. In this increasingly complex world, other agencies also have problems and we can learn from others. The question for Mr. Flory is the following: as an NRO, we need the IAEA to co-ordinate information and help NROs in different countries to help us more in the future.

Mr. Lacoste: If a mistake is made by a safety authority, it can be called to the Court of Justice or can be investigated, at least in France.

Mr. Flory: One example of the IAEA co-ordinating is the INES scale. The public did not understand the different levels in INES. Before a severe accident, there should a single message, rather than ten. One strong message agreed upon by experts. The IAEA can help in this field.

Mr. Lacoste: It is impossible to have a perfect management of a crisis. The INES scale is a communication tool to inform quickly. If you have to discuss it before communicating for a month, then it is not useful. In a real crisis, you have to act quickly and as well as possible.

Mr. Crawford: I can see an inability to focus on issues that concern the public. The distrust, the public's concerns have not been addressed. The same statements were repeated over and over. Instead we are repeatedly reassured that nuclear is safe. Why is it the responsibility of the regulators to say that nuclear is safe? Regulators then are not seen to be impartial because they are taking sides. They are not seen as neutral. What can the NROs do to regain the trust of the public at large?

Mr. Molin: Many technical people tend to have an attitude not to deal with concerns that are unfounded. It is a cultural problem of the regulators to learn to deal with that. Another part of the answer is to admit we are not perfect. We have to say, "We do not know everything". We all know there is no absolute safety in technology. From a regulatory point of view, safe is if it complies with the rules.

Mr. Niel: NROs are not promoting nuclear energy but controlling it. NROs have to take decision. In France, we stopped the construction of the EPR twice. If there is an accident, the regulatory authority goes to court. This can be part of the trust. NROs should also tell the facts, what we understand and what we do not understand. During Fukushima, we were not able to answer and we said we don't know. The most important thing in building trust is looking at the facts.

Mr. Rónaky: We never say nuclear energy is safe. We license a facility only if it is safe. Maybe we have not lost the trust or maybe we never had the trust. Maybe media opinion is not public opinion. Public opinion is very complicated and it is different in different countries.

Mr. Lacoste: Absolute safety does not exist. For instance, the ASN thinks that no one can guarantee that there will not be a nuclear accident in France.

Web Question: *Many countries that have NPPs are not members of the IAEA RANET system? Is there any reason why these members are reluctant to be part of RANET?*

Mr. Flory: These states are committed to providing assistance in case of an accident in another country. It means that not all countries have this capability. Some countries are actively considering that.

In summary

1. It is important for NROs to liaise with foreign and national contact points during a crisis.
2. The IAEA conventions should be referred to and used to provide guidance during a crisis.
3. NROs should implement an organised, timely and consistent response system to crisis situations.
4. There should be consequences for misinformation; NROs should be held accountable for the information they fail to provide.

Session 6

Improvements in NRO crisis communication

Chair: Dr. Youn-Won Park, President, KINS, Korea

Co-ordinator: Ms. Yeonhee Hah, KINS, Korea

Speakers:

- Ms. Karina De Beule, Spokesperson, FANC, Belgium
- Ms. Sunni Locatelli, Director-General of the Strategic Communications Directorate, CNSC, Canada
- Mr. Makoto Watanabe, Public Relations Officer, NISA, Japan
- Mr. Risto Isaksson, Communication Officer, STUK, Finland

Current strategy for NRO communication: Europe

Ms. Karina De Beule, Spokesperson, FANC, Belgium

How to become a reliable information source for public & media?

-> by managing a clear, coherent communication strategy, reflected in our daily attitude & communication

–> by showing every day we deserve to be seen as thrustworthy, objective, reliable

FANC federal agency for nuclear control

Content

- WGPC – Federal Agency for Nuclear Control FANC)
- The way we choose to go: Strategy & most used instruments up to today by the WGPCmemebers (WGPC survey 2010)
- The way we continue: How we cope with public expectations?
- Societal context: needs & opportunities
- How do we respond to public expectations?
- Our opportunities & challenges for the future

FANC federal agency for nuclear control

FANC

- Federal Agency for Nuclear Control
- Mission: protection of population, workers and environment against negative effects of ionising radiation
- Role: independant & objective advise to Belgian government on safety & security matters in the nuclear- control of nuclear sector-follow up of radiological situation
- ISO 9001/2000 certified
- +/- 150 employees

FANC
federal agency for nuclear control

The way we chose to go

NRO communication strategy-20110509-Karina De Beule 5 / x

FANC
federal agency for nuclear control

The WGPC's sub Working Group on Transparency (2008-2010)

- Results of the NEA WGPC survey -> 18 countries participated
- Objective : To establish **good practice guidance for NRO's** on implementation of transparency in order **to promote public confidence and consistency of practice** across Regulators, where appropriate

FANC federal agency for nuclear control

Information disclosure, transparency & the legal position: where do we stand?

- All responding countries (18) had a legal basis for disclosure of information
- Practices on proactive disclosure of information vary
- Most NROs interact with or oblige industry (licensees) to be more transparent
- The FOI Act/ Aarhus provides guidance on how information should be disclosed -> not always clear view on how to do this
- Most responding countries have a 4 week (30 day) timeframe for disclosure of documents
- For sensitive (security)information most countries redact/withhold parts of rather than a whole document

FANC federal agency for nuclear control

Routine Access to Information

- All NRO's use the internet and the media as it is recognised as the most timely and direct way to communicate with the public. The majority use the web to publish information on specific events/incidents -->becoming point of reference
- There is a growing trend to release information about regulatory decisions -> looking for a coherent approach national/international level
- The majority of responders do not proactively publish information about security matters -> balance security/transparency
- Half of those responding disclose peer reviews such as IRRS mission reports, some do for the inspection reports
- Many NRO's produce annual reports aimed at the public on their activities
- The majority of responding countries publish information about INES and how it works -> after incident/accident in the shortest of time (2H)
- Good practices of use of social media still are a challenge, the use is promoted but still imited

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Public Engagement

- Most NROs have stakeholder engagement processes but the form and level of public involvement varies from country to country -> looking for resources!
- There are a number of innovative methods of engagement being deployed or piloted by NROs (media campaign about protection measures in case of emergency, agreements about communication priorities, expositions, …)
- Consultation is a common activity but is usually the responsibility of Government or the operator, not the NRO - Most NROs are not required to consult on regulatory process -> international legal frame!
- Some formal engagement meetings take place but this varies - Informal meetings are used by most

FANC federal agency for nuclear control

Using the media as a communications channel to access the wider public

– All NROs consider that a permanent, proactive, transparent communication is important way to gain public confidence

- All countries try to be proactive with the media: in the meantime most NROs have one or more well appointed spokespeople

- Most media activity is reactive as it is generally considered more difficult to attract media interest in good practice in 'no accident' time

- Some countries have guidelines for communicating with the press

- Most NROs organise media training but how this is done varies

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The way to continue

… or how the daily regulator's communication approach is the key element for an efficient crisis communication

NRO communication strategy-20110509-Karina De Beule 11 / x

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Societal Context: some facts

- 'radioactivity' goes hand in hand with an extreme risk perception*
- Sector known as 'secretive' and thus not trusted
- General knowledge about radioactivity stays below mediocre*
- Context stays polarised and is often (strongly) ideologised and influenced by discussion about nuclear energy*
- Most trusted sources by public are scientists (46%) and nuclear safety authorities (30%)*
- Media are main information source for the general public in case of an incident, (TV 72%, newspapers 40%, internet 27%,radio 23%, magazines 18, schools & universities 7%)*
- To much use of 'specialist language' gives opportunities for many different interpretations (confusion)
- Generally little interest when no incident/accident
- Gap between technical and common language: mSv and Bq were only mentioned in +/- 10% of the newspaper articles

NRO communication strategy-20110509-Karina De Beule 12 / x

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How do we respond: the regulator's opportunities & challenges

- Our mission: protection of population, workers and environment
- Our status of neutrality and objectivity
- Competences contain more then safety in nuclear power plants(medical, natural, cosmic,…)->many opportunities, many subjects

NRO communication strategy-20110509-Karina De Beule 13 / x

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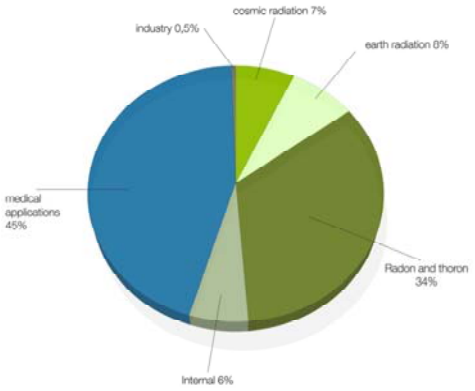
Our strength: many subjects concerning daily life



NRO communication strategy-20110509-Karina De Beule 14 / x

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Already a long way behind us, still many challenges to take… (1)

- Transparency and openness
  - -> how open and transparent are we? Still looking for a good balance: communicating everything, every report is not necessarily = transparency; what about balance security/safety, when are we over-communicating?...
  - -> how understandable is the language we use?
  - -> do we communicate what people want to know or what we want to tell: which is the right balance?
- Communication plans
  - – > where do we stand, what about internal communication, organisational culture (every representative = ambassador)

NRO communication strategy-20110509-Karina De Beule 15 / x

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Already a long way behind us, still many challenges to take…(2)

- Stakeholdersmanagement: set up an optimal communication between all levels : all concerned authorities, operators, media, in our own team, with NGO's, with scientists…, define competences and responsibilities
- Know how to use social media and social networks
- Help population to understand, knows how to evaluate diffused information, knows the most important actors, knows how to act in case of incidents and accidents, prepare messages, comparisons,…and use them!

NRO 16 / x

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Already a long way behind us, still many challenges to take… (3)

- Media relations: how much do we invest in media relations, do they know whom they can contact, are we available at any time, is there a clearly, appointed spokes person, do we communcate in an effective, easy-to-use way, language? How fast do we respond to their questions? Do we seize all opportunities we have?

NRO communication strategy-20110509-Karina De Beule 17 / x

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Conclusion

- Crisis communication demands reliability, thrustworthiness, prompt reactions, well trained spokesperson(s)
- -> our day to day approach is the best, daily excersice to proove on a continual basis we deserve this trust!

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Sources

- *Special Eurobarometer 324: Europeans and nuclear safety, 2010*
- *Sck.cen Press barometer about Fukushima reporting in Italy, Belgium and Slovenia),2012*
- *Commendable Practices on transparency in Nuclear Regulatory Communication with the Public. NEA/CNRA/R(2011)3, January 2011*

FANC federal agency for nuclear control

Maintaining public confidence: putting out the right information at the right time in a nuclear emergency

Ms. Sunni Locatelli, Director-General of the Strategic Communications Directorate, CNSC, Canada

Today's presentation will:

- Review Canada's immediate response to Fukushima
- Share lessons learned as nuclear communicators
  - Keeping the public informed on Canada's Action Plan
  - Using social media

Canadian Nuclear Safety Commission

Maintaining Public Confidence – 2012-05-10 – Page 2

Canada's response to Fukushima was immediate, intense, comprehensive…

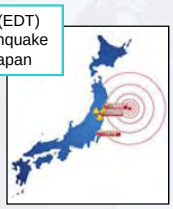
- Monitored events 24/7 for several weeks
- Disseminated information as the situation evolved (CNSC was first within the Government of Canada)
- Liaised with federal, provincial and municipal levels of government
- Supported Government of Canada response (Minister of Foreign Affairs, CNSC President)
- Communicated immediate regulatory actions to confirm nuclear power plant safety and follow-up

Canadian Nuclear Safety Commission

Maintaining Public Confidence – 2012-05-10 – Page 3

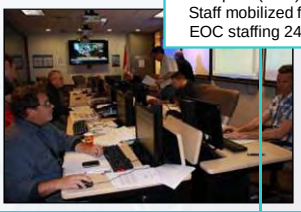
… supported by our Emergency Operation Center…

1:46 a.m. (EDT)
Mag. 9 earthquake
Strikes Japan



10:30 a.m. (EDT)
First message sent to
CNSC staff

5 p.m. (EDT)
Staff mobilized for
EOC staffing 24/7



10:00 a.m. (EDT)
Decision to activate
Emergency Operations
Centre (EOC)

3:00 p.m. (EDT)
First public statement
issued

Canadian Nuclear Safety Commission

Maintaining Public Confidence – 2012-05-10 – Page 4

…and relying on key sources of information to ensure accuracy

Japanese Agencies

Tokyo Electric Power Company

Japan Atomic and Industrial Forum

Nuclear and Industrial Safety Agency

Government of Canada

Department of Foreign Affairs and International Trade

Other Government Agencies
(Health Canada, Food Inspection, Environment Canada)

Canadian Nuclear Association

International Agencies

International Atomic Energy Agency (IAEA)

U.S. Nuclear Regulatory Commission

Canadian Nuclear Safety Commission

Maintaining Public Confidence – 2012-05-10 – Page 5

Communication to the public began the day of the disaster…

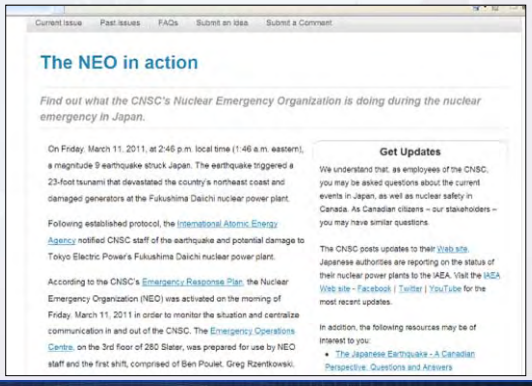
- Information Updates issued daily as event developed from March 11 through April 1, then weekly or as significant developments occurred
- Daily coordination with other government departments
- Immediate creation of a Fukushima Web page
- Response to media requests for information

Canadian Nuclear Safety Commission

Maintaining Public Confidence – 2012-05-10 – Page 6

…as did internal communications to CNSC staff

- Daily messages to staff from March 11 to 28
- Articles in bi-weekly newsletter
- Weekly wrap-up emails from President



Canadian Nuclear Safety Commission

Maintaining Public Confidence – 2012-05-10 – Page 7

Canada's Action Plan was presented publicly using interactive fora

- Public proceedings - live Webcasts on:
  - CNSC Fukushima Task Force Report and Action Plan (three rounds of public consultation)
  - External Advisory Committee Report
- Other initiatives included:
  - IRRS mission to Canada
  - Participating in ongoing national and international dialogue

Canadian Nuclear Safety Commission

Maintaining Public Confidence – 2012-05-10 – Page 8

Our experience resulted in five key "lessons learned" for communicating nuclear issues in a crisis

1. The public needs a single, reliable source that harmonizes critical information
2. Be prepared, be prepared, be prepared!
3. Technical information requires careful, consistent interpretation
4. Losing sight of day-to-day issues carries considerable risk
5. Social media has its merits if used with awareness

Canadian Nuclear Safety Commission

Maintaining Public Confidence – 2012-05-10 – Page 9

Lesson 1: In crisis, the public will be looking for a single, reliable source

CNSC recognized and quickly implemented delivery of reliable, timely and objective information

- Adapted quickly to provide resources to respond to the situation
  - Staff dedicated to respond
  - Abbreviated approval processes
- Constantly monitored evolution of crisis
  - Respond quickly with "real-time" information
  - Plain language
- Provided timely information to bolster public confidence
  - Slow responses, cryptic language feeds perception that information is being concealed

Canadian Nuclear Safety Commission

Maintaining Public Confidence – 2012-05-10 – Page 10

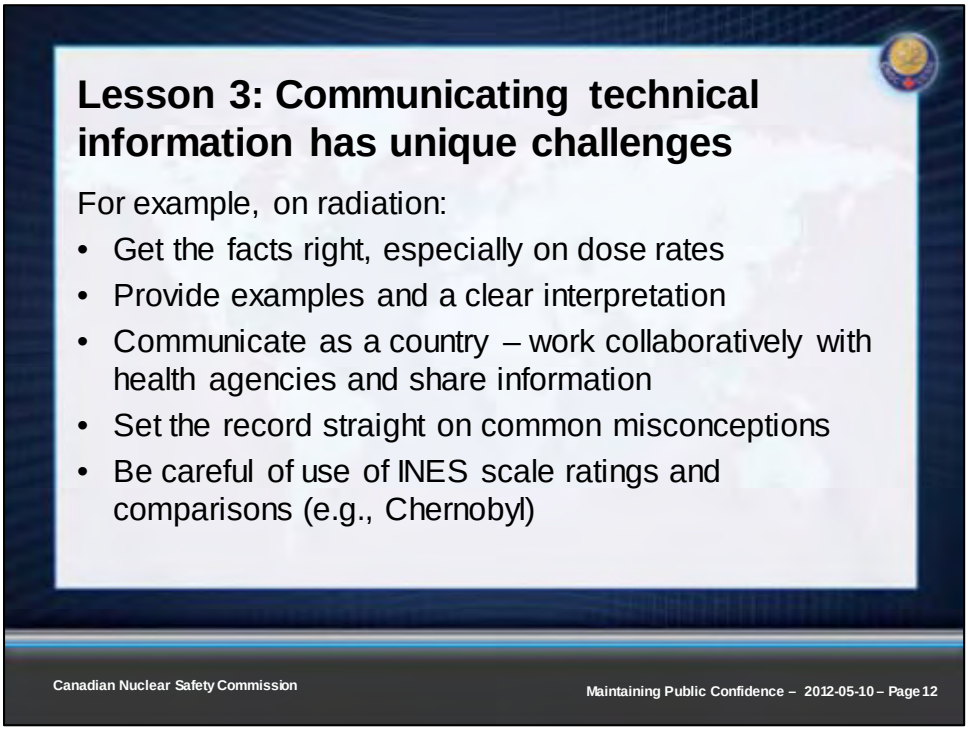
Lesson 2: Be prepared!

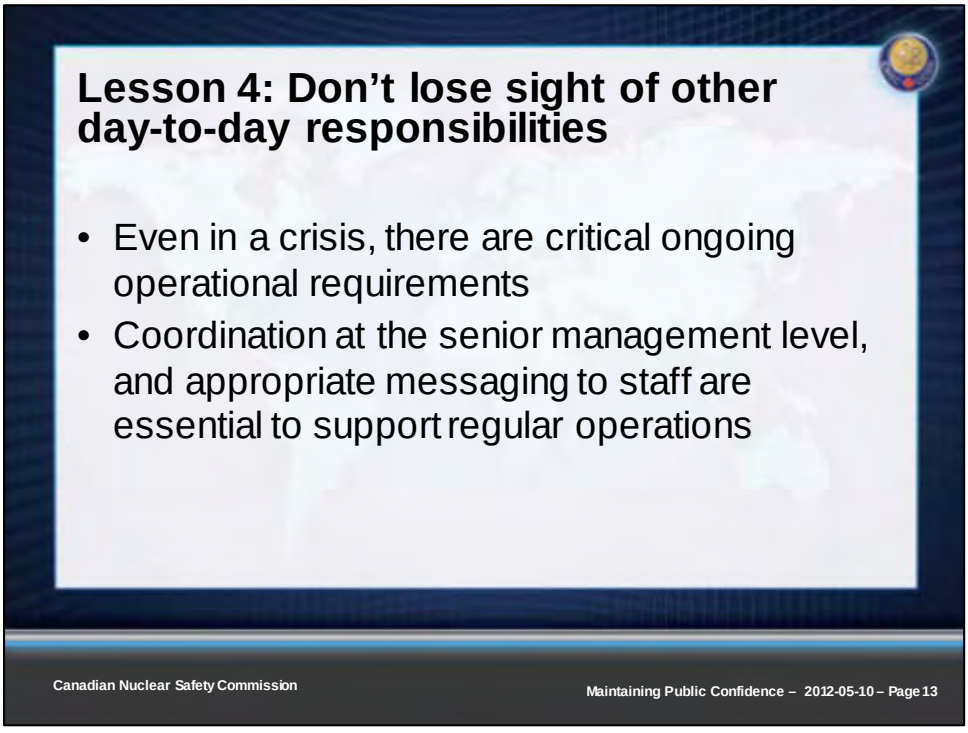
The CNSC is working on:

- Enhancing readiness (crisis site, prepackaged information, building capability, training spokespersons, etc.)
- Revisiting Web content for plain language and full coverage of key topics
- Participating actively in emergency exercises
- Ensuring open lines of communication with all stakeholders
- Integrating social media as part of our tool box by launching a Facebook page, and developing a YouTube channel and Twitter account

Canadian Nuclear Safety Commission

Maintaining Public Confidence – 2012-05-10 – Page 11


Lesson 3: Communicating technical information has unique challenges
For example, on radiation:
• Get the facts right, especially on dose rates
• Provide examples and a clear interpretation
• Communicate as a country – work collaboratively with health agencies and share information
• Set the record straight on common misconceptions
• Be careful of use of INES scale ratings and comparisons (e.g., Chernobyl)
Canadian Nuclear Safety Commission
Maintaining Public Confidence – 2012-05-10 – Page 12


Lesson 4: Don't lose sight of other day-to-day responsibilities
• Even in a crisis, there are critical ongoing operational requirements
• Coordination at the senior management level, and appropriate messaging to staff are essential to support regular operations
Canadian Nuclear Safety Commission
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Lesson 5: Social media has its merits if used with awareness

- Information can circulate very quickly
- Traditional corporate communications approaches with lengthy approvals often "broken"
- Allows you to get your message across quickly enough to preserve credibility as an information source
- Supports understanding of what content people are seeking

Canadian Nuclear Safety Commission

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There are important factors to ensure social media success

- Senior management has to buy in
- Dedicated staff need to be in the loop
- Immediate response is key
- Establish credibility and social media followers before crisis!
- Use multi-platforms and tailor messaging

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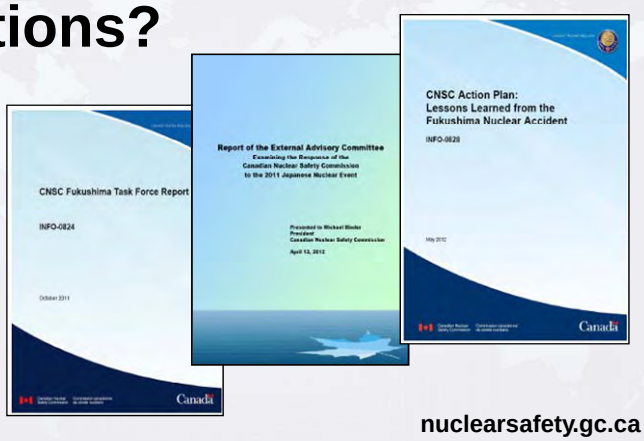
Closing thoughts….

Building trust with the public is <u>everyone's</u> job – not just the regulator's

Questions?



nuclearsafety.gc.ca

Thoughts and measures for improving the public communication of Japan's nuclear regulatory body

Mr. Makoto Watanabe, Public Relations Officer, NISA, Japan

OECD Workshop on Crisis Communication
Session 6: Presentation bythe Nuclear and Industrial Safety Agency (NISA)

Thoughts and Measures for Improving the Public Communication of the Japan's Nuclear Regulatory Body

10 May 2012

Makoto Watanabe
Special Adviser for the Nuclear and Industrial Safety Agency (NISA)
Director, Fukushima Region Nuclear Safety Administrative Office
NISA

Contents

1. Rearrangement of the Indications Obtained from Questionnaires and Interviews etc.
2. Issues to be Challenged in light of Public Hearings/Public Relations Regarding This Accident
3. The Form of Public Hearings/Public Relations Activities during an Accident

1

1. Rearrangement of indications obtained from Questionnaires and Interviews

Rearrangement of the indications

When rearranging the content of the indications obtained from questionnaires and interviews, the issues can be categorized as shown in the table below. These four categories were further organized into sub-categories according to their content. The table below shows the categories and sub-categories of the indications.

Category	Sub-category
1. Looks as if there was no capability for response	(1) Insufficient emergency response capability (2) Insufficient public relations capability
2. Could not see an attitude of trying to proactively provide information	(1) Provision of information is slow (2) Looks as if information is hidden
3. Response to information needs is insufficient	(1) Insufficient grasping of information needs (2) Insufficient response to needs related to information contents (3) Insufficient response to needs related to the means of information provision
4. Response organization is difficult to understand	

2

2. Issues to be challenged in light of Public Hearings/Public Relations Regarding This Accident

Extraction of Issues to be challenged based on indications

We analyzed what caused the indications rearranged in the previous chapter. As a result, the following four issue categories were found. Our actions to address these issues will be explained in session 6.

Category	Sub-category
1. Issues related to the accident response	[Issue 1] Problems in obtaining information [Issue 2] Problems in analyzing and assessing information [Issue 3] Problems in the reliability of the analysis and assessment results
2. Issues related to the public hearings/public relations functions	[Issue 4] Public relations strategy is unclear [Issue 5] Insufficient collaboration between the decision-making field and the public relations field [Issue 6] Insufficient collaboration between the prime minister's office and NISA's public relations [Issue 7] Problems concerning the spokesperson [Issue 8] Problems concerning the functions for supporting the spokesperson [Issue 9] Lack of human resources for international response [Issue 10] Problems concerning the handling of uncertain information [Issue 11] Problems concerning comprehensibility [Issue 12] Insufficient use of public hearings/public relations tools [Issue 13] Insufficient communication with stakeholders
3. Issues related to the sharing of information with relevant organizations	[Issue 14] Insufficient collaboration with relevant organizations
4. Issues regarding emergency preparedness response	[Issue 15] Insufficient capability to respond to events that exceed expectations

3

2. Issues to be Challenged in light of Public Hearings/Public Relations Regarding This Accident

1. Issues Related to Accident Response

Aside from problems being perceived as problems of public hearings/public relations, in the first place, there should probably be some problems of accident response as an organization.

Specifically, there were some problems underlying that pertain to the collection of information on the development of the situation or the evaluation as a regulatory body underpinned by technical expertise, and also regarding the concrete response.

[Issue 1] Problems in obtaining information

[Issue 2] Problems in analyzing and assessing information

[Issue 3] Problems in the reliability of the analysis and assessment results

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2. Issues to be Challenged in light of Public Hearings/Public Relations Regarding This Accident

2. Issues Related to the Public Hearings/Public Relations Functions – 1)

Regarding the Public Hearings/Public Relations Functions, issues from various aspects such as organizational viewpoint or communicative view point, including matters related to decision-making were mentioned.

Particularly regarding the relationship with various stakeholders, the considerations normally tend to target only aspects of public relations; however, developing a relationship of mutual trust through a daily communication is an important issue.

(1) Problems in decision-making

[Issue 4] Public relations strategy is unclear

(2) Problems in the organization

1) Structural problems
[Issue 5] Insufficient collaboration between the decision-making field and the public relations field

[Issue 6] Insufficient collaboration between the prime minister's office etc. and NISA's public relations

2) Problems of human resources
[Issue 7] Problems concerning the spokesperson

[Issue 8] Problems concerning the support of the spokesperson

[Issue 9] Problem of human resources for international response

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2. Issues to be Challenged in light of Public Hearings/Public Relations Regarding This Accident

2. Issues Related to the Public Hearings/ Public Relations Functions – 2)

(3) Problems in the communication of information

[Issue 10] Problems concerning the handling of uncertain information

[Issue 11] Problems concerning comprehensibility

(4) Problems of public hearings/ public relations tools

[Issue 12] Insufficient use of public hearings/public relations tools

(5) Problems in day-to-day stakeholder communication

[Issue 13] Insufficient stakeholder communication

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2. Issues to be Challenged in light of Public Hearings/Public Relations Regarding This Accident

3. An Issue Related to the Sharing of Information with Relevant Organizations

In the case of an accident like this, which is complex, large-scaled and long-term, it is indispensable that a plurality of organizations collaborate for the response while fulfilling their individual roles. This point can also be mentioned as an important issue.

[Issue 14] Insufficient collaboration with relevant organs

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2. Issues to be Challenged in light of Public Hearings/Public Relations Regarding This Accident

4. An Issue Regarding Emergency Preparedness Response

The following issue was mentioned as a problem regarding emergency preparedness response. These are closely related to issues in risk communication, but as a concrete counteraction, they should probably be approached as measures for emergency preparedness.

[Issue 15] Insufficient capability to respond to events that exceed expectations (both from the "software" and "hardware" perspective)

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3. The Form of Public Hearings/Public Relations Activities during an Accident

1. Actions Related to Accident Response

The duties as a regulatory authority in a nuclear emergency include not only the obtainment of first-hand information from the operator, but also the technical analysis and assessment of the accident on the basis of this information, and the establishment of measures as necessary. Public relations activities consist, of course, in communicating the facts, but also in communicating the assessment, action and the reasons for these in an easily comprehendible way.

Therefore, the first precondition as a regulatory authority is being able to obtain information on the accident, technically analyze the information and establish measures to respond; and to achieve this, it's needed to execute training and the like to improve the technical expertise of our staff and the response capacity as an organization.

❍ Improvement of technical expertise and response capacity in the regulatory authority

Action 1: Improve the technical expertise and response capacity of individual staff (response to issues 1 and 2)

• Develop and hold staff having technical expertise

Action 2: Improve the response capacity as an organization (response to issues 1 and 2)

• Trainings in crisis management for management staff

• Practical training assuming significant events (complex events involving natural disaster and nuclear emergency, simultaneous accidents at multiple plants, etc.)

• Utilize a dedicated team specialized in accident analysis and assessment (acquire separately from staff in charge of accidents)

❍ Improvement of the technical response capacity using external institutions (response to issue 3)

Action 3: Improve the technical response capacity using external institutions

• Utilize external institutions such as JNES, which is a specialized technical support organization (including emergency responses)

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3. The Form of Public Hearings/Public Relations Activities during an Accident

2. Actions Related to the Public Hearings/Public Relations Functions

Public relations of a regulatory authority in a nuclear emergency is, of course, required to communicate information needed by residents and organizations etc. inside and outside of Japan speedily and accurately; and it is also important that this information is communicated in an easily comprehensible form.

Further, also during normal times, it is important that, following the principle of disclosure and transparency, people are thoroughly informed what kind of assessments are served as the base for the activities as the regulatory authority. It is also important that, by reflecting opinions and evaluations of various stakeholders in the regulatory work and public relations, the quality of the regulatory work is improved and trust with stakeholders is developed.

Action 4: Unification with decision-making (response to issues 4, 5 and 6)

Increase the speed of public relations based on information sharing under a unification decision-making function in the prime minister's office with public relation functions.

Action 5: Improve the awareness regarding public hearings/public relations in the entire organization (response to issues 4, 5 and 6)

• Seminars and trainings for the entire staff in order to sufficiently understand the purpose of public hearings/public relations

• Seminars and trainings on public hearings/public relations for management staff

Action 6: Improve the functionality of public relations from the human aspect (response to issues 7, 8, 9, 10 and 11)

• Improve response capacity of spokesperson (media training)

• Enhancement of human support for the spokesperson

• Utilization of external experts

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3. The Form of Public Hearings/Public Relations Activities during an Accident

2. Actions Related to the Public Hearings/Public Relations Functions

Action 7: Develop manuals for public relations (response to issues 10 and 11)

Action 8: Improve and develop public relations tools based on the characteristic features (response to issue 12)

Action 9: Improve public hearings functions (response to issues 11 and 13)
- Enhance call center functionality (save results of information needs analysis and replies of the people in a database)
- Utilize regional branch offices to grasp information needs in regions other than the region concerned
- Promote communication with overseas countries

Action 10: Share a common mindset with news related persons to prepare for emergencies (response to issue 13)
- Briefings and observation tours for news related persons during normal times (mechanisms for emergency preparedness, ERC facilities etc.)

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3. The Form of Public Hearings/Public Relations Activities during an Accident

3. Actions Related to the Sharing of Information with Relevant Organizations

In order for various relevant organizations to response collaboratively while fulfilling their individual roles, it is a precondition that, after clarification of the division of roles, each organization understand its own role in a concrete form based on the clarification and tackle their activities.

For this reason, it is necessary to develop environment to ensure a smooth information sharing with the relevant organizations, such as preparing for common manuals shared among the relevant persons.

Action 11: Clarify the division of roles of the relevant organizations (response to issue 14)
- Consider the division of roles with the relevant organizations (including the prime minister's office)
- Consider the ideal form of information sharing between the Nuclear Emergency Response Headquarters Secretariat (Tokyo) and the Local Nuclear Emergency Response Headquarters

Action 12: Smoothen the sharing of first-hand information from the operator etc. with relevant organizations (create manuals etc.) (response to issue 14)

Action 13: Enhance international public relations functions by means of a collaboration with the Cabinet Public Relations Office and the Ministry of Foreign Affairs (response to issue 14)

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3. The Form of Public Hearings/Public Relations Activities during an Accident

4. Actions Regarding Emergency Preparedness Response

As for response related to emergency preparedness, considerations from the following perspectives are being made separately. It is necessary that the results of these considerations are reliably executed.

(Some of the matters under consideration)

- Promotion of information sharing with operators
- Promotion of information sharing among relevant organizations, including the prime minister's office
- Enhancement of infrastructure serving as the platform for the sharing of information with operators and relevant organizations

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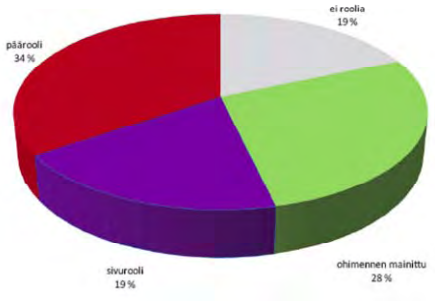
Towards improved preparedness and more effective co-operation in regulators' public communication

Mr. Risto Isaksson, Communication Officer, STUK, Finland

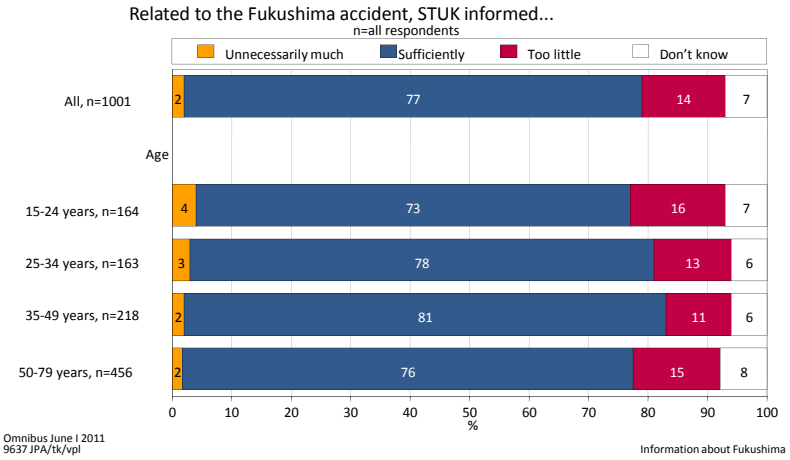
STUK´s public communication: a good result - this time

Fukushima in Finnish news media, March 2011

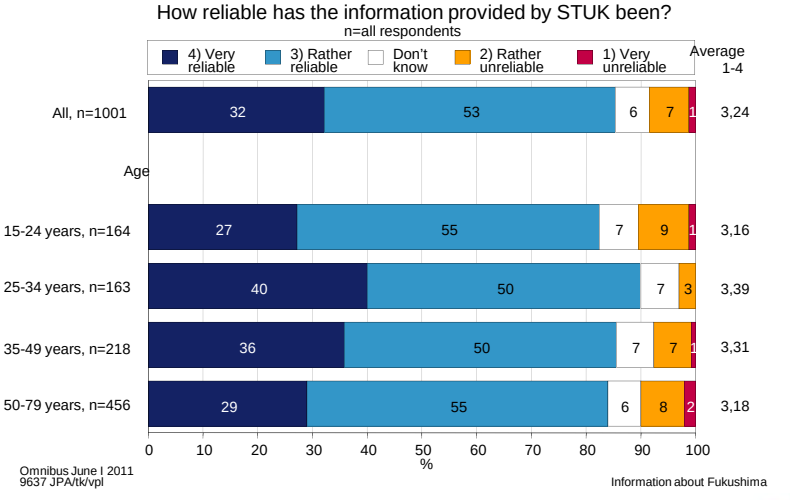
- STUK was mentioned or was a commentator in 80% of the news stories
- In 34% of the stories STUK had a main role as a source of information
- In 97% of the stories STUK was seen as a neutral (independent) source of information



Public survey: the volume of communication



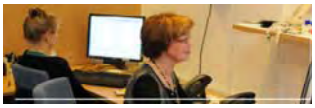
Public survey: reliability of communication



STUK´s emergency organisation

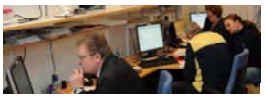
Management Group

Secretariat



Situation assessment

Radiological impact assessment



Radiation advisory

Public communication

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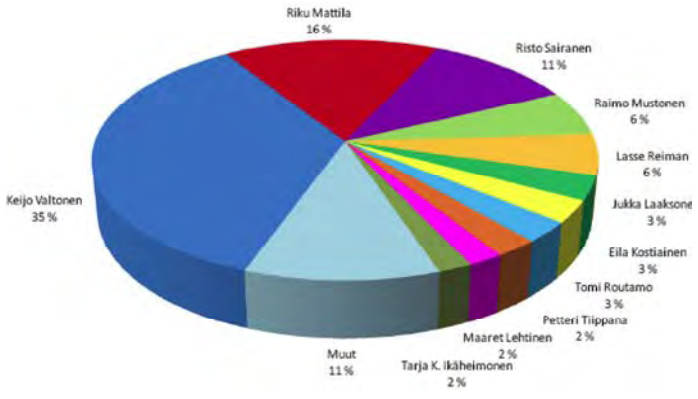
RADIATION AND NUCLEAR SAFETY AUTHORITY
RI
2/22/2013
6

7 spokespersons, 23 assistant



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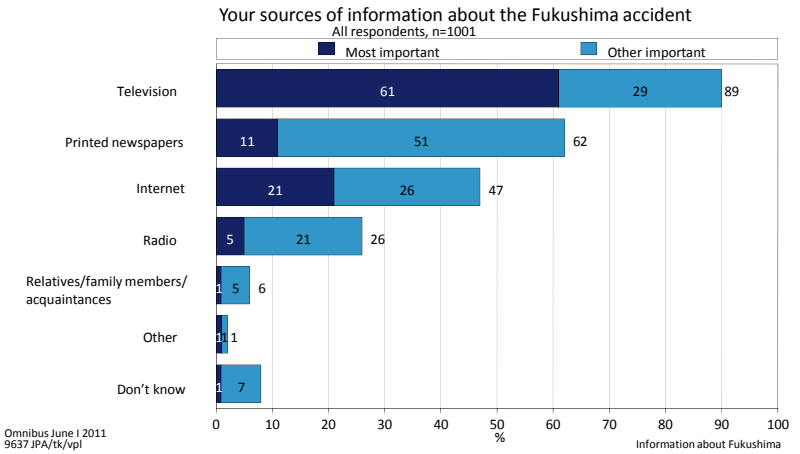
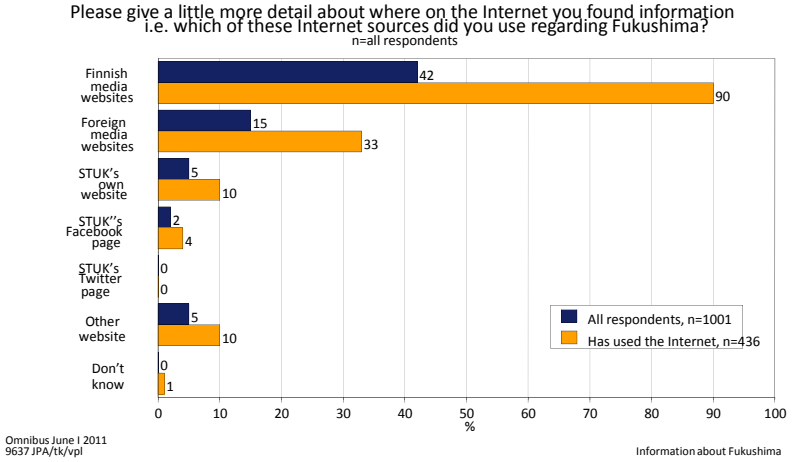
RADIATION AND NUCLEAR SAFETY AUTHORITY
RI
2/22/2013

Public survey: sources of information



Public survey: use of the Internet



Development needs

- more trained spokespersons for each area of expertise
- clear order of priority about methods and tools that will be used and media that will be served when there are not enough resources to do everything
- in stead of the one by one organized press conferences there is a need for regular briefings and these briefings should be webcasted
- in addition to (or in stead of) separate press releases there should be a continuous information flow in authorities net page and in social media
- more prewritten instructions and information sheets for the public and for the media
- increasing the visitor capacity of webpage
- clear policy and practical guidelines for the use of social media
- a software tool that helps visualisation of e.g. dispersion in understandable form for the media
- improvement of cooperation between authorities communicating with the media and public

Summary of discussion for Session 6

Prepared by the Secretariat

Question 1: *Do you think that making communication drills in a crisis situation is necessary? Is it actually in place in your organisation?*

Ms. De Beule: In Belgium, it is integrated within bigger exercises. Part of the drill is the activation of information cells. We have contacts with journalism schools and future journalists imitate the media pressure, which helps us understand the kind of information demanded. Another aspect of communication integrated into the drills is the integration of several levels of authority, like provinces and local communities. When there is a crisis, even if communication is centralised, these levels will also have an important role and will have to communicate with the population.

Question 2: *The journalist here in Madrid told us that they want "credible" people to interview. NROs should seek to put spokespeople forward, but should we not accept that there are "credible" NROs and "credible" academics that could be put forward for interview?*

Mr. Locatelli: The licensees in Canada are very credible people. Third party educational professionals are very credible people as well. They have a neutral view of the situation. The regulatory organisation is considered an independent body and is very capable of speaking to the public and has a lot of credibility.

In summary

1. Public engagement needs to be a priority for NROs.
2. NROs need to plan and prepare for communication during crises in advance.
3. Communication and trust are built on a daily basis.
4. NROs need to be aware of how the public perceives risks and act accordingly.
5. Successful emergency preparedness/accident response entails strong collaboration among stakeholders (government, affected communities and the general public).
6. Roles of relevant stakeholders in a co-ordinated response need to be clear in advance of a crisis situation.

Concluding session

Findings and good practices for nuclear regulatory organisations

Speakers:

- Ms. Yeonhee Hah, Head of International Co-operation, KINS, Korea, WGPC Chair
- Mr. Jean-Christophe Niel, Director-General of Nuclear Safety, ASN, CNRA Vice-Chairman
- Mr. Javier Reig, Head, Nuclear Safety Division, OECD/NEA
- Mr. Fernando Marti, Secretary of State for Energy, Spanish Government, Ministry of Industry, Energy and Tourism
- Mr. Antonio, Colino Martínez, CSN Commissioner, Spain

Concluding session

Findings and good practices for nuclear regulatory organisations

Future work for the WGPC in crisis communication

Ms. Yeonhee Hah, Head of International Co-operation, KINS, Korea, Chair of the WGPC

Future work in crisis communication for WGPC of NROs and key findings in light of the WGPC's programme of work addresses the following points:

- The Road Map on Crisis Communication adequately addresses national aspects. There is a need to cover the international dimension, since international aspects of communication call for an extension of the road map. A new updated version of the roadmap will cover how to communicate with other countries; and if necessary, how to prepare for translations, phone calls and remain aware of media feedback in other countries.
- Usually NRO's communication team are separated from international relations. We need to work on NRO's communication plans to prepare pedagogical information to be provided in case of an event.
- Social media is becoming universal, even though it has the added challenge of spreading information quickly. We need to use social media more widely, even though it cannot replace classical means. Social media offers flexibility and will help NROs increase credibility because rapid response can add to our credibility. Social media can add emphasis to regular communication channels.
- NROs need to continue sharing experience.
- WGPC should monitor the use of new information technologies and work to improve communication plans.
- WGPC will continue to provide guidance to the CNRA for best NRO communication.
- "Flash news" system will continue to be used by NRO communicators to quickly alert their counterparts on events attracting media interest so that they are a reliable source of information.

New directions for crisis communication of nuclear regulatory organisations

Mr. Jean Christophe Niel, Director-General of Nuclear Safety at ASN, Vice-Chairman of CNRA

Preliminary outcomes of the CNRA work are:

- Building credibility of NROs. The mission of NROs is to control operators and communication is part of this control. NRO's credibility is fundamental to gain the public trust. Credibility is difficult to reach; nevertheless it must be the goal. Day-to-day efforts need to be made to progress, especially as a result of increasing demand from all stakeholders.

- Openness and empathy: it is necessary to involve all stakeholders in various ways, in drills, training, discussing and delivering information, to share comments and questions.
- Involve those at the local level. This issue is not always rational and technical, but we must acknowledge the emotional frame, the notion of passive risk and that there are fears. It is important to address the concrete public expectations.
- Communicate timely and regularly, as clearly and objectively as possible, use appropriate language to the audience. NROs should strive to be a reliable source of information; it is a priority to answer media demands. NROs must be prepared to answer all kinds of questions, prepared for matters of an unexpected nature, provide media with information that is easy to understand by non-experts, professional relations with media.
- Consistency between NROs: emergency preparedness is essential (harmonising protective actions by bilateral or multilateral arrangements). Exchange of information between NROs is fundamental and is developed through drills, on a national, a bilateral or an international basis. Finally, co-ordination among states and the responsible organisations (through the IAEA and the EC) is crucial in providing feedback analysis of an emergency situation at the international level.
- Thinking globally when communicating. NROs should take advantage of new media (twitter, Facebook, YouTube). Communication has become international. Any world citizen has access to news. NRO's communication should consider not only the public in the affected countries, but the public in all other countries as well.

Concluding remarks

Mr. Javier Reig, Head, Nuclear Safety Division, OECD/NEA

Public communication is now a key function for all NROs. It comes naturally now, but it was not obvious twelve years ago. NROs were considered to be mostly technical organisations, then they began to pay attention to more formal and legal aspects and finally, they started several years ago to interact with the public.

Communication is a two-way process: providing information, listening, trying to anticipate expectations, feed and accommodate expectations, etc. The role of regulator is similar to the role of other agencies (especially those involved with safety and public health). Working closely with these agencies (for instance, the aviation sector) needs to continue. We need to make an effort and try to find other partners to share experiences.

Before, public communication was considered a very national aspect. Safety is not a domestic issue but a global issue and communication is also a global issue. Globalisation has become the common element.

Words that have come-up throughout the workshop include:

- Trust: some people believe in blind trust. But this trust needs to be sustained and the right credibility, the right information needs to be provided. Differences among countries (countries react in different ways to the same issue) undermine trust;
- Risk: perceived risk versus real risk. Technical people think they talk about real risk but the public understands perceived risks. Real and perceived risks are concepts to be discussed.
- Transparency: practical transparency versus amount and quality of information. What does transparency mean in practice? In some countries, all information received by the regulator is in a public access room. But, it may be difficult to find

some information. It is not a question of the amount of information, but of quality and access. An interesting concept to continue working on is practical transparency.

- Media is the tool to communicate, but they have their own boundary conditions (media has its own needs and the regulator has its own limitations). Work "with" media versus work "against or "independent from media. There is a need to make efforts to be closer to media. Media needs information fast. But the question of time and reliability is important. Training the journalists is interesting, but make sure they have the time and desire to do this.

We need to re-word our goals winceaccidents are still possible and we need to reduce probabilities and consequences of accidents. The real fact is that regulators need to be organisations that learn continuously. The NEA has made a huge effort to try to involve stakeholders. We need to improve and increase interaction with all stakeholders.

Concluding address

Mr. Fernando Marti, Secretary of State for Energy, Ministry of Industry, Energy and Tourism, Spanish government

I would like to thank the president of the Council, Carmen Martínez, the Director General of the OECD/NEA, for their invitation to participate in this session to close this Conference.

I know the work that regulators have to carry out, since I worked at the National Energy Commission for 12 years. We are living in a unique moment with regulators; we are at a turning point. Regulation is more an art than a science, since it is the art of knowing how to adjust science and laws to the situation that we are living through currently, especially in times of crisis.

We have to learn from the errors we have made in the past, so as to decide: where do we want to be in 30 years' time? How do we get out of the current crisis?

The market is not the reference for decisions that are taken. We need to talk about the cost of energy.

Our challenge is to define the basis and the foundations for a safe generation of reactors in the next 30 years. Decisions with the future in mind need a change, now, in the short term.

Closing remarks

Mr. Antonio Colino Martínez, CSN Commissioner, Spain

This Workshop has been an enriching process and a great opportunity for nuclear organisations and institutions involved in a globalised society, where some decisions have to be made in the short term, tackling issues as they arise. It is difficult to remain calm and take appropriate actions in the early stages of the crisis. Communication is evolving globally and after a local crisis, it often transforms into an international crisis. It is challenging to provide scientific information in a simple manner. Technical experts speak to national and international media, but use different systems, which is confusing for the citizens.

We need to find better ways to communicate and collaborate internally and externally. This fruitful seminar will help us to prevent mistakes in communication in future crises. We must consider the relationship between openness and safety issues as well as the respected role of NROs, industry and media and the need for a global and holistic approach for crisis communication.

I would like to mention a few ideas mentioned before:

- Efficient preparedness and anticipation of demands make better communication.
- It is important to get kids to know you as a way of work in advance and build trust for the long term.
- Timeliness is the opposite of reliable information
- Timeliness and accuracy are often regarded as part of information quality.
- If we are not able to manage a crisis, the crisis will manage us. If we don't manage communication, communication will manage us. We need to be prepared in advance.
- Emotions and rationalisation have to be balanced.
- It is necessary to adopt a holistic global approach for crisis communication.
- Strengthen safety and security of nuclear facilities through global communication openness.

Annex 1

Workshop Programme

Wednesday 9 May 2012

08:30 **Registration**

Opening Session

09:30 Opening Address

General Chair: Dr. Carmen Martínez Ten, President, CSN, Spain

09:45 Welcome Address

Mr. Fernando Martí Scharfhausen, Secretary of State for Energy of Spain

10:00 Opening Remarks

Mr. Luis Echávarri, Director-General, OECD Nuclear Energy Agency

10:15 Objectives of the Workshop

Mr. Mike Weightman, HM Chief Inspector, ONR, United Kingdom, Chairman of the CNRA

10:30 Coffee break

Session 1. Key Elements in NRO Crisis Communication

11:00 Key Communication Principles and their Implementation

Chair: Dr. Jozsef Rónaky, Director-General, HAEA, Hungary

Co-ordinator: Ms. Elisabeth Besenyei, HAEA, Hungary

11:10 The CNRA Road Map for Crisis Communication of Nuclear Regulators: Challenges and Implications for Better Preparedness

Ms. Yeonhee Hah, Head of International Co-operation, KINS, Korea, Chair of the WGPC

11:25 The Daily Regulator's Communication Approach: a Key Element for an Efficient Crisis Communication

Ms. Karina De Beule, Spokesperson, FANC, Belgium

11:40 Using Social Media to Leverage Crisis Communications

Mr. Eliot Brenner, Director of the Office of Public Affairs, NRC, United States

11:55 The Syndromes of Crisis Communication in the Nuclear Sector

Mr. Luis Arroyo, President, "Asesores de comunicación pública", Spain

12:10 Discussion

13:00 Lunch break

Session 2. Lessons Learned in NRO Communication from Past Crises

14:30 Lessons from Nuclear and Non-Nuclear International Events

Chair: Dr. Gregory Jaczko, Chairman of the US NRC, United States

Co-ordinator: Mr. Eliot Brenner, US NRC, United States

14:35 NISA's Lessons Learned from the Accident at TEPCO's Fukushima Nuclear Power Stations

Mr. Makoto Watanabe, Public Relations Officer, NISA, Japan

14:50 Crisis Communication: Indian Experience

Dr. S.S. Bajaj, Chairman, AERB, India

15:05 Core Communication Activities during Fukushima and Commendable Practices Identified by the CSN

Ms. Marina Calvo, Communication Advisor, CSN, Spain

15:20 Dioxin Contamination in Food – Lessons for NRO Crisis Communication

Dr. Ann McGarry, Chief Executive, RPII, Ireland, Chair of the CRPPH

15:30 Discussion

16:00 Coffee break

Session 3. Panel on Social Expectations regarding NRO Crisis Communication

16:30 Main Concerns for the Public? Main NRO Responses

Chair: Mr. André-Claude Lacoste, President, ASN, France

Co-ordinator: Mr. Emmanuel Bouchot, ASN, France

Panellists

Mr. Claude Birraux
First Vice-Chairman of the Parliamentary Office for Scientific and Technological Assessment (OPECST), France

Mr. Roland Palmqvist
Mayor, Sweden / President of GMF (International Group of Municipalities with Nuclear Facilities)

Dr. María Neira
Director, Public Health and Environment, World Health Organisation (WHO)

Mr. Pete Wilkinson
Wilkinson Environmental Consulting Ltd, United Kingdom

Mr. Laurent Stricker
Chairman of the World Association of Nuclear Operators (WANO)

17:00 Discussion

18:00 Adjourn

Thursday 10 May 2012

Session 4. Panel: Understanding Respective Roles of Media, NRO and Industry

09:00 Timeliness vs. Reliability of Information

Chair: Ms. Alicia Montano, RTVE, Spain

Co-ordinator: Ms. Marina Calvo, CSN, Spain

Panellists

Ms. Annika Digreus
Sverige Radio AB, Sweden

Mr. Hong-Sup Cho
The Hankyoreh Newspaper, Korea

Mr. David Crawford
The Wall Street Journal, United States

Dr. Hans Wanner
Director-General, ENSI, Switzerland

Mr. Juan Eibenschutz
Director-General, CNSNS, Mexico

Mr. Jonathan Cobb
Media Director, World Nuclear Association

09:45 Discussion

10:30 Coffee break

Session 5. Need for a Global Approach to NRO Crisis Communication

11:00 How to Address Concerns Outside the Affected Country?

Chair: Mr. Mike Weightman, HM Chief Inspector, ONR, United Kingdom, Chairman of the CNRA

Co-ordinator: Ms. Sue Kelly, ONR, United Kingdom

11:05 The Role of Nuclear Regulatory Organisations in Getting Information from a Foreign Event

Mr. Nikolay Kutin, Chairman, Federal Environmental, Industrial and Nuclear Supervision Service of Russia, Russian Federation

11:20 Crisis Communication Consistency amongst Nuclear Regulatory Organisations

Mr. Jean-Christophe Niel, Director-General, ASN, France

11:40 Communication Aspects of IAEA's Response to the Accident at Fukushima NPP

Mr. Denis Flory, Deputy Director General, Head of Safety and Security Department, IAEA

11:50 Global Approach to NRO crisis Communication, Do We Need a European Solution?

Mr. Andreas Molin, Federal Ministry for Environment, Austria, Vice-Chair of ENSREG

12:05 Discussion

13:00 Lunch break

Session 6. Improvements in NRO Crisis Communication

14:30 New Strategies – New Techniques

Chair: Dr. Youn-Won Park, President, KINS, Korea

Co-ordinator: Ms. Yeonhee Hah, KINS, Korea

14:35 Crisis Communication Experience in China

Mr. Liu Hua, Vice Administrator, Director General, NNSA, China

14:50 Maintaining Public Confidence:
Putting out the Right Information at the Right Time in a Nuclear Emergency

Ms. Sunni Locatelli, Director-General of the Strategic Communications Directorate, CNSC, Canada

15:05 Sources and Measures for Improving the Public Communication of the Japan's Nuclear Regulatory Body

Mr. Makoto Watanabe, Public Relations Officer, NISA, Japan

15:20 Towards Improved Preparedness and More Effective Co-operation in Regulators' Public Communication

Mr. Risto Isaksson, Communication Officer, STUK, Finland

15:35 Discussion

16:00 Coffee break

Concluding Session
Findings and Good Practices for Nuclear Regulatory Organisations

16:30 Concluding Remarks from CSN
Mr. Antonio Colino Martínez, CSN Commissioner, Spain

16:45 New Directions for Crisis Communication of Nuclear Regulatory Organisations
Mr. Mike Weightman, HM Chief Inspector, ONR, United Kingdom, Chairman of the CNRA

17:00 Future Work for the WGPC in Crisis Communication
Ms. Yeonhee Hah, Head of International Co-operation, KINS, Korea, WGPC Chair

17:15 Closing Remarks
Mr. Javier Reig, Head, Nuclear Safety Division, OECD Nuclear Energy Agency

17:30 End of Workshop

Annex 2

Summaries of presentations from Sessions 1, 2, 5 and 6

Prepared by the Secretariat

Session 1: Summary of presentations

The CNRA Road Map for crisis communication of nuclear regulators: challenges and implications for better preparedness

Ms. Yeonhee Hah, Head of International Co-operation, KINS, Korea, WGPC Chair

The roadmap for crisis communication was prepared by the members of the working group. After the accident in Japan, it was shown that clear and effective communication during crisis is absolutely critical to accomplish our mission as regulators. Our credibility would be at stake if the communication during crisis were not handled in the correct way.

The WGPC is under the CNRA. The CNRA promotes co-operation among member countries to ensure transparency and openness. With this guidance, the WGPC supports public communication activities of NROs. The group has a good networking system, the "Flash News", to share information about events. There are 21 countries that also share experience and co-operate with EC and IAEA.

WGPC has implemented several tasks, more importantly, since 2009 the WGPC has been working on crisis communication. A survey was conducted about respective communication practices regarding national crisis situations, resulting in a roadmap on crisis communication. The ten key findings of the survey conducted are summarised as follows:

1. Specific actions should be undertaken during three phases: pre-, on-going and after crisis.
2. The sooner, the better. Normally, reaction time is within two hours of confirmation of the event. Nevertheless, the reaction time does not depend on NROs.
3. NROs should take an active role during a crisis, to offer information and as a primary source of technical information.
4. Initial press alerts should be followed by media briefings, interviews, websites.
5. To expedite crisis communication, pre-drafted messages are needed.
6. The potential of new media such as Facebook, twitter and blogs has been recognised.
7. Training spokespersons and contingency plans are needed to support crisis communication better.
8. The accuracy of the information is very important to avoid confusion and increase credibility.
9. Well-defined emergency organisations and consistent information among them is necessary.
10. Self-assessment, evaluation and lessons learned should be involved in drills and media training to increase transparency, communication and co-ordination.

All key messages are incorporated into one single comprehensive table in the roadmap. This roadmap presents actions to be undertaken before, during and after a crisis at different levels: management, logistics and public affairs levels (*see presentation by Ms. Hah*). The roadmap was drawn before the Fukushima accident and does not cover the international dimension of a crisis. The group decided to conduct another survey to identify actions undertaken by NROs after Fukushima, which will be incorporated into the roadmap.

The roadmap is sound, but does not address all the challenges during crisis communication. Information goes beyond the borders and the audience is all over the world. We need to prepare and think internationally. An accident anywhere can be an accident everywhere. Communication anywhere becomes communication everywhere. We need to prepare to deal with national and international public. The roadmap is very general to be applied to all NROs and it should be applied case by case. It is important to keep in mind efficient preparedness and anticipation of the demands to improve communication.

The practice of public communication of the nuclear safety regulator in China

Dr. Liu Hua, Director-General of National Nuclear Safety Administration, People's Republic of China

Currently, China faces big challenges brought about by the public's increasing need for information on radiation safety, especially after Fukushima. Related knowledge on nuclear and radioactivity from the public is very limited for nuclear technology. The public needs quick, transparent, accurate and easy information from official channels, especially the regulator and media.

The basic situation in China is the following: 15 NPP in operation and 26 units under construction. In total, China has 41 nuclear units. From this year, the construction plan will be put into operation in the following three years. There is also a programme to continue nuclear because of the energy demand and environmental protection.

The National Nuclear Safety Administration (NNSA) is the regulator and is also an administration in the Ministry of Environmental Protection. One viceminister is the administrator of the NNSA. The NNSA reports to the prime minister through the MEP. The NNSA consists of a headquarters, six regional inspection offices and Technical Support Organisations.

The NNSA has three departments, nuclear regulatory departments 1, 2 and 3. These are technical departments responsible for nuclear activities, for radioactive source, management, strategic plans, standards development and nuclear equipment inspections. There are 85 persons in the three technical departments, for the six regional offices, there are 331 inspectors, and the radiological monitoring centre has 100 persons.

During the Fukushima accident, the NNSA used traditional media and its website. They published radiological monitoring data, provided information about the accident's status (translated 78 NISA reports about the accident and released 121 news briefs on accident's status and radiological consequences), disseminated basic knowledge on nuclear and radiation safety (organised experts to write 20 articles, published a brochure with basic information on TV and newspapers). Published data on TV every day from March to June 2011 regarding the status and progress of the accident and had explanations from technical experts on the radiological consequences compared with background radiation.

The NNSA website on Fukushima gave information to ensure the public that radioactivity from the accident is within the background. NNS also published dose rate and also data from operating NPPs. They held workshops and seminars, especially for

university students. The NNSA published a brochure with Question & Answers for nuclear safety and radiation safety.

The NNSA issued rules on public information in April 2011. The rules included the obligation for NPPs and the NNSA to publish information on incidents or accidents above grade 1 of INES in time as well as on events at grade 0, if the public is interested. There was also a request for NPPs to publish their status of radiation safety periodically.

- The NNSA held meetings on nuclear safety between the Mainland and Hong Kong in April 2011. The NNSA required the Daya Bay NPP to provide information on operation and events to Guangdong province and Hong Kong.

The NNSA will further improve its public communication by establishing a working team on public information and communication. The function of this team is to collect, analyse and evaluate information, provide quick, transparent and accurate information to the public and push forward public dissemination for basic knowledge. The NNSA will request the operating NPPs to strengthen public communication. The NNSA will also establish information exchange with nuclear operating organisations on public communication and dissemination. Additionally, the NNSA will provide basic knowledge on the internet website, conduct training courses for spokespersons, organise workshops and training for media, and WS to media people, hold training courses for NNSA spokesmen and organise site visits to NPPs.

Currently, the NROs face new challenges after Fukushima. Public confidence and communication become more important for both the regulator and the operator. NNSA is making efforts to improve public communication in China.

Using social media to leverage crisis communication

Mr. Eliot Brenner, Director of the Office of Public Affairs, NRC, United States

One of the findings of the NEA Roadmap on Crisis Communication states that "one of the challenges observed by most NROs is that the reaction time in terms of communications does not always depend on the national regulator. New channels, like social media, have increased the difficulty for NROs to manage crisis communications quickly and accurately". This is exceptionally true and it is necessary to work with social media if you want to succeed in communication.

Internet became a primary communication tool in the early 1990s. ITU estimates that a third of the world is using the internet and almost half of the users are under age 25. Communication is changing and now social media is a widely accepted form of communications.

During the Fukushima crisis, all countries used the internet, but the use of social media was mixed. A couple of countries heavily relied on social media; others used it to some degree while others did not use it at all. However, post-Fukushima, many NROs are paying more attention to social media, primarily, Facebook and twitter. The forms of social media used by the NEA NROs during the Fukushima crisis were Facebook, twitter, dailymotion, web meetings, chats, blogs, dedicated newsletters and dedicated web pages.

In the United States, on Friday, 11 March, we had a first press release and parallel to that, the first blog post saying that the NRC was monitoring the earthquake and tsunami. On Saturday, we had two more blogs and then a press release notifying that they were deploying experts to Japan, with the support of the US Embassy in Tokyo.

On 13, 14 and 15 March 2011 citizen concern rose dramatically and the NRC prepared two more blogs explaining there was no harmful radiation to US and that plants in the US were robust. The NRC Chairman spoke at the President's White House Press Room, which was disseminated widely. Blog visits increased to 5 000 a day. As the blog is a two-way

communication tool it was possible to read comments from visitors and from this, guide public affairs communication products.

On Wednesday, 16 March:

- The NRC recommended to the Embassy in Tokyo that US citizens evacuate the 50-mile radius around Fukushima.
- Blog comments rose to 6,000 visitors a day. Many of the comments coming in said that the information provided in the blog was very helpful.
- There was blog post saying "don't believe everything you read" to avoid misinformation.

The blog proved to be a very flexible and a speedy tool for US NRC.

The ASN also used social media extensively during the Fukushima accident: they had a dedicated website, used Facebook, twitter, dailymotion, published a newsletter and about 300 messages were received through mail and Facebook.

Some points for discussion and thoughts follow:

- Social media is an increasingly common way to communicate faster;
- "Re-tweeting" by others multiplies impact;
- Social media is much less formal, requires less management oversight, but cannot entirely replace traditional press release;
- Crisis raises media interest, news media monitors social media closely. Monitoring by NROs is necessary too;
- Social media can also spread misinformation;
- Blogs and tweets offer an important way to respond rapidly and gain traction of your message;
- One of the challenges is that it can require staff, resources or decisions by managers of what to leave unaccomplished;
- NROs should include additional social media elements in crisis communication plans, understand what it requires and recognise the potential.

The syndromes of crisis communication in the nuclear sector

Mr. Luis Arroyo, President, "Asesores de comunicación pública", Spain

I will present what I consider to be the three syndromes with regard to the nuclear sector, especially in times of crisis.

The first syndrome is fatality. The nuclear sector is so close to the military sector that the public finds it is risky, terrible, and dangerous. The whole nuclear sector has all factors that psychologists and sociologists consider as high risk perception: invisible, involuntary, affects future generations, human-made, unfamiliar, replaceable benefits (there is an alternative to nuclear energy and it has a deadline).

The second syndrome is that the nuclear sector is always the Goliath versus David. We are the black against the Green, industrial against natural, controversial versus consensual, aggressive versus peaceful. The decision of Japanese authorities to suppress nuclear energy has raised a whole debate about emissions, but for most people that debate is won by the green sector already.

The third syndrome is the syndrome of framing. All this makes the public perceive the nuclear sector in a way that it is difficult to explain in words and it is better to see

images. The images after "Googling" words such as "nuclear", "solar", "wind" and "petrochemical" are very different. Nuclear is mainly black and related to the atomic bomb; it is controversial.

Here are some ideas with regard to the three syndromes:

- In the long term, rationality can compete with irrationality, but not in the short term.
- Bring together rational arguments, but do not underestimate risks. When specialists say to people that there is not one single person died after Fukushima, people do not listen.
- Get kids to know you, write in textbooks and bring them to facilities. Students at university level have already formed opinions and decided, so they are not worth targeting.
- Do not compare with other energies. Do not enter the debate over nuclear against others. You are part of a mix.
- Do not talk about only you in a crisis.
- Bring environmentalists and progressives publicly to your side. Worldwide there is an ideological debate between nuclear being conservative and green being progressive. There is an imaginary of ideas or concepts that are on one or the other side.
- Consider advertising in times of peace. Not on the defensive side. Do not forget mass media.
- Soften and refashion your materials: softer the colours, new stories, new words, friendly spokespersons, less ties and jackets, more people in the ground speaking for the public.

Take your time because this goes very slowly. The whole history of the nuclear sector and the regulation of the nuclear sector is full of crisis and full of emotions and change will take much time.

Session 2: Summary of presentations

NISA's lessons learned from the accident at TEPCO's Fukushima nuclear power stations

Mr. Makoto Watanabe, Public Relations Officer, NISA, Japan

The accident at TEPCO's Fukushima Nuclear Power Stations was a complex emergency and very difficult to respond to, as there was an earthquake and tsunami at the same time. Since this accident was a complex emergency including not only a natural disaster but also a nuclear accident caused by the disaster not to mention the fact that the disaster became large-scaled and long-term, it was impossible for NISA to respond by itself and it became necessary for the entire government to respond. The Government had to work on the response to the earthquake, the tsunami and the nuclear accident at the same time.

Due to infrastructure problems it was difficult to obtain plant parameters and to make necessary contacts. The operator and the government were not prepared for such an accident. After the accident, information was provided in briefings for the press. Due to loss of power sources, the situation could not be fully grasped. The normal communication network was not available for use and it was not possible to obtain sufficient information. They were unable to smoothly provide information for residents through local authorities, for example, the need to evacuate.

Public relations changed according to the phase of the accident. Over time, communication improved, for instance, there was a centralisation of public relations by joint press conference. There was insufficient sharing of information.

Briefings for journalists were the centre of public relations and they were broadcast on national TV.

The timeline of communication during the accident is as follows:

- First 24 hours after the earthquake occurrence

  Immediately after the earthquake occurrence, Mobile NISA sent out a first report, and a first briefing was held. Thirteen additional briefings were held during the first 24 hours after the earthquake occurrence.

- 2nd day to 1 week later

  Though the frequency of the briefings decreased temporarily due to some confusion about how information should be shared with the prime minister's office and the confusion following the occurrence of the hydrogen explosions, the briefings were held continuously at around two or three times a day.

- After around the end of March 2011

  Regular briefings of about twice daily including holidays. (Additional briefings as necessary when troubles occurred).

  Started joint press conferences by the Integrated Headquarters for the Response to the Incident at the Fukushima Nuclear Power Stations from 25 April 2011.

- From the end of Step 1 to the end of Step 2

After the completion of Step 1 on 19 July, joint press conferences were held twice a week, and briefings organised by the public relations team of the Nuclear Emergency Response Headquarters Secretariat were held once every day from Monday to Saturday.

- After the end of Step 2

Joint press conferences ended with the completion of Step 2 on 16 December. Since that time, each institution holds briefings and the like individually.

The public relations team for the secretariat has been holding briefings twice a week since the completion of Step 2 so far.

The number of briefings held since the accident up to the present (as of the end of March 2012) is 390 times.

NISA set-up a consultation contact and a telephone consultation hot line was set up, not only for residents of the area.

For the international community, there were press conferences and briefings. But they were unable to release enough information. The secretariat of the IAEA was the first to collaborate with Japan. NISA received support on the communication side as well.

A questionnaire was conducted to establish the lessons learned from this experience. NISA was suspected of not disclosing information to the public. NISA was unable to sufficiently respond to information needs. They were criticised for being slow compared to the news media or the internet; the information provided in English did tend to be slow.

NISA is currently considering the following improvements: enforce the system of communication during emergencies and provide the necessary information available. Since the information network was not functional after the accident, the use of satellite communication should be enhanced. Videoconferences were very useful among companies. It is necessary that the people in charge of the press and competent for decision making are in the same organisation. The response to an accident should be centralised in the Prime Minister's office. For the local response, it is necessary to draft a new emergency preparedness plan.

As a vehicle for public relations, the role of social media is growing. Finding ways of coping with this new media is also an issue.

Crisis communication: Experience in India

Dr. S.S. Bajaj, Chairman, Atomic Energy Regulatory Board, India

Fukushima was India's first experience in handling radiological impact from another country. After the accident, the impact for India was the immediate concern. There were rumours that radioactivity was coming from Japan. The second concern was how safe are India's NPPs vis-à-vis this accident. India has 20 operating NPPs and seven NPPs under construction. The safety of Indians in Japan, were among our other concerns as well as issues like restrictions, requirements, passengers coming from Japan, cargo, etc.

The first response of the Indian establishment consisted in the Prime minister calling the Indian establishment who then issued a statement on the status of Indian NPPs. The government and the utility issued separate statements about the robustness of NPPs in India. There were on-going interactions with media through press releases and interviews. The AERB communication team issued press releases stating that there was no radiological impact in India and updated the IAEA website daily with radiation levels in India. All the steps taken were largely effective in building confidence in the establishment, including the regulator.

Another incident in India was the Mayapuri incident which involved a legacy device containing Co 60 sources. This was an INES level 4 incident which occurred in 2010. A legacy device containing Co 60 source was disposed of in an unauthorised manner in a scrap market in New Delhi. It caused one death and four cases of radiation sickness. The incident came to light when the Radiation Safety Officer of a hospital recognised symptoms of radiation sickness in one patient and promptly informed AERB. The origin of the source was traced but it took two weeks to trace it and they were retrieved. This required clean-up operations that were carried out several weekends. The public concerns were the extent and nature of the hazard, the health status of affected persons, if it was a malicious act and if it was imported metal scrap. The effectiveness of the regulatory control system was questioned. The time gap in ascertaining the origin of the source led to speculation by the media. The challenges were addressed by prompt communication with the media and public. Engagement with workers in the scrap market was important in order to find the origin of the source, to ease their anxiety and to clean-up.

There is another case in India, Kudankulam, where two units are in the final stages of construction and public agitation against the NPP started in September 2011 resulting in stoppage of work. The response of the government and the utility was to appoint an expert panel to address the safety-related issues that were posed. But the agitators were not satisfied with the responses received by the expert panel. As a political response, a package of financial incentives and welfare measures for the neighbouring population was announced and finally, law enforcement measures were established. .

Simmering resentments among the local population were the root cause for this public unrest. The expectations of welfare measures were not met during the construction of the NPP. A stronger interaction between the utility and the local population is needed.

Some lessons learned deal with the delay in ascertaining facts, the challenges of releasing information responsibly without causing heightened fear, avoiding alarming and incomprehensible expressions, fostering pre-existing healthy relations between authorities and ensuring public; preparedness during the peace time. Developing guidance on this issue is crucial for effective crisis communication.

Core communication activities during Fukushima and commendable practices identified by CSN

Ms. Marina Calvo, Communication Advisor, CSN, Spain

Nuclear accidents have no borders. During Fukushima, people were exposed to constant images of the earthquake, the tsunami and the devastating effects of the Fukushima Daiichi NPP.

During the Fukushima crisis, NROs could not decide nationally which actions to take without taking into account what other countries were doing.

When implementing the strategy, the CSN looked at what others were doing. At CSN, we believed that we should draw lessons and try to address urgent needs to avoid gaps.

One of the first actions after the accident was the immediate gathering of CSN top management at the emergency centre, led by the President. The range of tools and channels used to convey the messages varied depending on the target public.

One of the immediate actions was to activate a cell at put the emergency room (SALEM) on alert mode, not in emergency mode, as would have been the case for a domestic event. Top members of CSN gathered to fulfil the different tasks associated with decision-making and technical directors assumed the role of spokespersons giving first interviews on the spot in order to answer technical questions from media accurately.

In practice, we were centralising the information available, analysing it, informing the government and elaborating external communication.

Information received from international official sources was at the origin of the communications strategy adopted.

On 15 March CSN's president met with the president of the Government. The next day the Government launched a follow-up unit which included participation from the ministries of health, the interior and foreign affairs as well as CSN. The Ministry of Health, together with CSN, set an action protocol for passengers coming from Japan. The government released information on the situation of Spanish citizens in Japan and offered to repatriate them on a voluntary basis. In parallel, CSN provided parliament with regular updates, especially on stress tests.

After CSN submitted the stress tests reports to the EC, press releases were issued. Under the sooner the better premise, the decision was to use press releases. It allowed giving explanations, maps, and links. Up to two press releases per day were elaborated during the first weeks. Additionally, 22 interviews were offered to the media. The CSN president also appeared on public TV during primetime to provide a live assessment of the situation. Audio statements were posted on the website and we sent constant reminders through our twitter account.

The post-Fukushima period allowed the CSN to interact with media a great deal. For example, the CSN radiation protection DG in their role as leaders of the IAEA rehabilitation programme on contaminated areas in Japan held a working breakfast with journalists on 16 October.

The key messages conveyed under the 'sooner the better' premise to prevent social alarm were:

- There was no emergency in Spanish NPPs;
- Fukushima Daiichi was a very serious accident;
- No elements of concern regarding Spanish citizens resulted from Fukushima.

The specific tools CSN used were the website, which was optimised to gather all the information available. CSN also set-up a call centre and information requests were answered through the publications department (they received 900 requests by phone and e-mail). The main concerns came from individuals in Japan and from companies importing goods. CSN elaborated supportive articles and FAQs addressing these issues.

The three main lessons learned in crisis communication are:

- The importance of 360 ° communications management. In a global crisis, it was key to undertake a holistic approach oriented to learning social trust.
- The need for communication professionals within NROs, appropriately integrated within the organisation and familiar with crisis management.
- Building and caring for a communication plan covering different crisis scenarios: Who is responsible for what? This plan should comprise four main principles: Anticipation, timeliness, quality of information, truthfulness.

Official sources cannot be as fast as unofficial sources, but if NROs take the initiative and co-operate internationally, they could become the most trusted source of information.

Dioxin contamination in food – lessons for NRO crisis communication

Ms. Ann McGarry, Chief Executive, RPII, Ireland, Chair of the CRPPH

My presentation looks at another crisis in a different field than nuclear. The case of dioxin contamination in food in Ireland was a short crisis and it can be a good case study to look at. A similar type of event happened in Belgium in 1999. It is interesting to see how things were managed in both cases and see what can be used for the nuclear field.

Dioxins are by-products of industrial and chemical processes, they accumulate in the fat of animal species, they are very persistent and they are similar with radioactivity.

The effects of dioxin contamination in Belgium were found in poultry that were dying in February 1999. The public was informed and the EC as well. There was a real crisis after that: two ministers resigned; there were disagreements between the Belgium authorities and the EC about the actual extent of contamination. Nearly ten years later, a similar crisis took place in Ireland, but with contaminated pork meat. In Ireland, lessons had already been learned from the Belgium crisis. In Ireland, contamination was noted during routine testing, which had been implemented after the Belgium crisis; the sources of contamination were identified and within days the public and the EC were informed. Once the contaminated food was taken out of circulation, it was possible for the authorities to start reintroducing clean food. It was seen that the issue had been managed well, even if it should not have happened.

The main differences between the two cases were: timely public communication, acknowledgement of real and perceived risks and control of stigma. In both cases, the actual risk to the public was very small, but had major consequences, particularly in economic terms. Firstly, timely public communication: in Belgium, there was delay of informing the public. It took them over a month and that caused lots of problems (allegations of cover-up, accusations of serving economic interests, blame directed at the government). In 2008, there was prompt communication in Ireland, which gave a sense that the crisis was being managed, a sense that the issue could be resolved, which reinforced the importance of timely communication because it establishes credibility in the organisation providing information. People tend to hear better what reinforces the ideas they already have. If the authorities come out quickly and talk about the situation, it helps to shape public attitude towards the risk. If information is delayed, other information is out there and by the time the authorities talk, the public is no longer listening.

Secondly, acknowledging not only real risks but also perceived risks. It is important to address perceived risks as well as real risks. In the Belgium case, there was uncertainty about the real extent of contamination. Rather than explaining this uncertainty, the authorities were downplaying the risk and trying to project confidence and optimism saying there was no risk. There was also disagreement between the EC and the Belgium authorities regarding the assessment of risk. This caused confusion and mistrust.

In Ireland, there was uncertainty about the real extent of contamination, but the public had all the information about what was known and what was unknown. If you deny the real risks, you are undermining communication and also ignoring non-risks perceived by the public as real.

Thirdly, control of stigma: in Belgium, the authorities said that the risk was unacceptable, rather than focusing on the actual risk. Attempts were made to inform the public, but this came too late into the process. By this stage, the situation was out of control. Irish authorities provided detailed information about efforts to reduce the risk and the public could see that the issue was taken seriously. It is important that the information provided is accessible and understandable. The quicker the authorities move to explain the situation in clear terms, the greater public acceptance there is.

The media plays an enormous role in informing the public. It is important that NROs work with the media, rather than against them.

Summarising some of the main lessons to be learned from the study of these two events:

- Risk assessment is the technical part before communication. It is important to plan for a range of scenarios, including for low probability and high consequence events and ensure that risk assessments are based on good science.
- Risk management and decision making. There must be clear leadership in the management of a crisis. It is important to establish who is responsible in a situation. Co-ordination among different agencies involved is crucial.
- Communicating with the public: address real and perceived risks. Ensuring that actions match words.
- Importance of keeping neighbouring countries and international organisations informed and if possible, use internationally agreed limits.

Session 5: Summary of presentations

The role of nuclear regulatory organisations in getting information from a foreign event

Mr. Valery Bezzubtsev, Vice Chairman, Federal Environmental, Industrial and Nuclear Supervision Service of Russia, Russian Federation

At present, the issue of information exchange between countries in the event of nuclear or radiation accidents is regulated by the 1986 Convention on Early Notification of a Nuclear Accident. The issues of assistance are regulated by the 1986 Convention on Assistance in the Case of Nuclear Accident or Radiological Emergency. The Russian Federation, like most of the IAEA MS, is a contracting party to both of the conventions. Each contracting party should appoint a competent authority and a contact point responsible for sending and receiving information in compliance with the Convention and notify the IAEA of these authorities and contact points. Within each country, emergency response can be arranged differently and it may involve governmental and non-governmental agencies, including the regulator and the operator. However, intergovernmental communication should be carried out through the national contact points. In the Russian Federation, the State Atomic Energy Corporation ROSATOM is the competent authority or contact point implementing the commitments under both Conventions. The regulatory authority (Rostechnadzor) is not the contact point under the Convention on Early Notification of a Nuclear Accident. ROSATOM has a crisis centre, which exchanges information with nuclear safety regulatory authorities. The crisis centre is an integral part of the unified state system of emergency prevention and mitigation.

If an accident occurs at an NPP, the national unified state system will be activated. The decision to activate the emergency is located at the utility centre. The regulator has the possibility to organise the exchange information. Rostechnadzor has an information and analytical centre. Rostechnadzor's crisis centre communicates with the national response centre, if necessary. It is part of the unified state system of emergency prevention and mitigation.

In case of an accident at a foreign nuclear facility, ROSATOM is the contact point. It is possible for the regulatory authority to receive information from this neighbouring country (via Rosatom's crisis communication centre) and information on the radiation situation on Russian Federation territory from the unified state automated system of radiation situation monitoring. The regulator can receive online information from the regulator of the country where the accident has occurred.

What is required from the response system when a nuclear radiation accident occurs in a neighbouring state?

- be aware of the current level of radiation impact;
- forecast changes in the radiation situation;
- take effective action to notify, and if necessary, to protect the public.

The regulatory authority should have the necessary competence and rapid communication means at its disposal to receive objective information in order to form its own independent opinion about an accident, radiation situation and forecast of its variation. The regulatory authority shall provide the Government and national

authorities in charge of emergency response with objective information to enable them to take decisions needed to protect the public, as well as to answer questions from the public.

Crisis communication consistency amongst nuclear regulatory organisations

Mr. Jean-Christophe Niel, Director-General, ASN, France

Nuclear events very often have an international dimension. They raise strong collective concerns, generate a great deal of pressure from the media and elicit many requests from the public and other relevant stakeholders. Due to concern for the public, politicians get involved at national and international levels. There are multiple information sources. The ASN is responsible for advising the government on measures to be taken in order to control the accident. It also has the duty to notify the public of nuclear events that take place at an international level and must inform the public and the media. It is a challenging responsibility to deliver information in a timely way, understandable information and updated as frequently as necessary. In the case of an event with consequences in several countries, NROs need to deal with many sources of information, cope with other the technical decisions of other NROs and adds crisis in communication to a technical crisis.

The presentation focuses on three events to illustrate how NROs can work together to increase consistency in crisis communication: harmonisation of iodine prophylaxis in 2006 (emergency preparedness); an industrial accident at Centraco facility on 12 September 2011 (crisis without radiological issues) and the Fukushima accident on 11 March 2011.

1) Harmonisation of iodine prophylaxis. In order to harmonise inconsistencies in protective measures, the first step among countries is to share information (for example, through bilateral arrangements with neighbouring countries; multilateral organisations like the HERCA association, radiation protection organisations and competent authorities). Neighbouring countries in Europe, like Belgium, France, Germany, Luxembourg and Switzerland could be concerned about radiation following an accident. It was considered important to harmonise preventive measures in case of nuclear accident. They gathered a group of experts to find a strategy suitable to all stakeholders and that would be adopted by national authorities. This strategy focused on references and preventive measures they would all have in common. They shared critical definitions, the prevention level, the dosage to be given and when. Common preventive measures were defined.

2) An explosion occurred at Centraco, a facility located a few kilometres from an NPP and dedicated to the treatment of low-level radioactive waste on 12 Sept 2011. It was a serious accident with no radiological issues. A worker was killed and some were injured. The media announced very quickly that a nuclear explosion occurred in one NPP. There was a panic effect, which led to school sheltering. There were limited technical issues but the ASN activated its emergency centre to deal with the demand for information. Two press releases were made in French, two in English and sent to bilateral contacts and other organisations and calls were made to IAEA, ENSREG, WENRA and others. The accident confirmed that an event, even without radiological impact, is important for the media; quick information to NROs is essential and a statement must be clear.

3) Fukushima: during Fukushima, the main role of the ASN was to get information, analyse it, deliver the information to the public and to the media and advise the French government. We collected information through several channels (the IAEA communication system: ENAC; USIE, ECURIE) and contacts with Japanese authorities, but not those who were directly involved in managing the crisis. We were in regular contact with foreign authorities. We had daily audio conference with ASN TSO (IRSN), the French embassy in Tokyo and daily audio conferences with other regulators. It was difficult to

maintain the crisis organisation over the long-term. The ASN provided information on a wide range of questions, issuing documents in English and French. The ASN had to synthesise the information and tried to inform with openness, regularly and honestly. The ASN said that the accident was between "TMI and Chernobyl" and that probably the core was damaged. The ASN never hesitated to say that they did not know when they did not know.

Some provisional conclusions from these examples:

- Technical consistency amongst NROs is an objective.
- Think global for emergency preparedness, by harmonising protective measures and promoting exchanges among regulators (networks such as HERCA). Emergency centres should be prepared to help each other and work together, train with neighbouring countries on all aspects of communication, by providing information quickly to other NROs and strengthening co-ordination among states through the IAEA and the EC.

Communication aspects of the IAEA's response to the accident at Fukushima NPP

Mr. Denis Flory, Deputy Director-General, Head of Safety and Security Department, IAEA

The size and complexity of Fukushima stretched our communication resources to their limit. This was the most serious accident since Chernobyl and affected several units simultaneously and on several fronts. It also lasted a long time and stretched the limits of emergency centres worldwide.

There is a legal framework at the IAEA and from our status we have an obligation to establish safety standards. These standards are not binding to the 154 MS. Responsibility remains with the 154 MS. Chernobyl changed everything and there were a lot of lessons learned. This was a time when two specific emergency conventions were approved: assistance and early notification. A bit later on, the convention on nuclear safety was also adopted and the structure of IAEA changed.

In 2001, after the 9/11 terrorist attacks, there was a wake-up call for terrorist capacity on nuclear facilities. The Convention on Early Notification of a Nuclear Accident was important during Fukushima and many questions were asked about the effectiveness of the convention. It applies to any accident. Today out of the 151 member states, there are 114 contracting parties to the early notification Convention, as well as the FAO; the WHO; the WMO and EURATOM. There is one amendment proposal on the functioning of this convention. It is from the Russian Federation. According to this Convention much information needs to be given to the IAEA and to the MS. However, the definition of accident is quite limited: it deals with an accident that could have potentially significant radiological consequences beyond its borders. In the convention, there is no precise figure on what significant radiological consequences beyond borders is exactly.

The IAEA has developed the radioactive assistance network (RANET) and countries have registered assistance capabilities.

The competent authority in notifying the state goes to IAEA secretariat and the IAEA provides information to the international organisation and the MS.

The joint radiation emergency management plan of international organisations develops the information flow in a way that goes beyond the Convention. The IAEA is the focal organisation for emergency response.

The IAEA Incident and Emergency Centre is the focal point for all MS during an emergency. It was activated immediately when the IAEA learnt of earthquake: one hour after the earthquake and approximately at the same time as the tsunami. It worked for 54 consecutive days and remained in continuous contact with the Japanese safety

authority. The Japanese safety authority was the official counterpart. The language barrier was a problem during the first phase and we knew that the information flow was quite slow.

The IAEA updates were provided not only for MS and but also for dedicated media webpages. There were overloaded websites and the IAEA used social media to relay the information available from the IAEA. The first challenge faced was the exploding demand, as everyone was looking at the IAEA. The IAEA response was 24/7 public information with staff available around the clock from 11 March until 22 April; there were thousands of phone calls from the public and the media. The IAEA was a reference for the public.

The second challenge was the information race. The IAEA is not a news agency. Fukushima was the first crisis where everything was seen on live TV. The IAEA's information is supposed to be authenticated, meaning they must know precisely where it came from. These are the IAEA's legal obligations. This needs to be done in co-ordination with relevant states and organisations. In terms of timescale, the IAEA was behind news media but what the IAEA said was totally true. The IAEA has to stick to factual, verified information.

The third challenge was that media and public turned to IAEA to explain things. The IAEA is not an NRO, not an authority, but an international organisation, producing international safety standards approved by the MS.

The IAEA did have daily briefings to MS (then weekly), which started on 14 March. It presented the status of Fukushima's NPPs, the radiological status, marine monitoring and food monitoring. It provided MS and the press with maps of the cloud's development.

The fourth challenge was to be perceived providing an independent view, which was very difficult. It meant dealing with misconceptions. The IAEA is best known as a UN watchdog. This comes from the field of non-proliferation. In nuclear safety, that role is the role of the safety authority. The IAEA spent a lot of time addressing this and the fact that safety standards are not binding to member states. After Chernobyl, the public expected the IAEA to provide information and an assessment of the situation. This was not the case at the time of Fukushima. The IAEA organised eight missions (not inspections) to Japan, always with the consent of the Japanese authorities.

A nuclear safety action plan was approved by 151 MS during the general conference last September. In this nuclear safety action plan, one of the actions is to enhance transparency and effectiveness of communication. During a nuclear emergency, the IAEA has to provide MS with potential consequences, including analysis of verifiable information and prognosis of possible scenarios. This capability is new and should be done collaboratively. The IAEA now has to analyse and make a prognosis of the scenario.

One of the key achievements since then was the organisation of a meeting on safety which gave the possibility to assess the gaps in technical aspects in terms of understanding in the accident and the lessons learned. An expert meeting is being planned to share information among MS.

INES is a communication tool that did not play its role in Japan. There were different views all around the world about INES' application. Without a harmonised approach to communication, There is chaos in the mind of the public. INES should be reviewed and improved to make it more effective. The IAEA is now working together with NEA on this communication tool. Ratings should be discussed with communication experts and national INES experts.

Universal implementation of the IAEA safety standards facilitates communication in an emergency. The review of early notification and assistance convention are expected to strengthen information and communication capabilities.

Global approach to NRO crisis communication: do we need a European solution?

Mr. Andreas Molin, Federal Ministry for the Environment, Austria, Vice-Chair of ENSREG

ENSREG was established by a Commission Decision in 2007 as a High Level Advisory Group on Nuclear Safety and Waste Management. It comprises top regulators and senior civil servants from all 27 MS as well as a Commission representative on equal footing. ENSREG has three working groups on nuclear safety, waste, spent fuel and decommissioning and transparency.

ENSREG gives advice on draft directives and on the implementation of these directives and how to best use international conventions. ENSREG has developed some working papers in improving transparency arrangements. The main challenge is to find the right balance between transparency and security.

ENSREG has contacts with other groups: ENEF WG on information and transparency (one person is the liaison officer); NEA CNRA WGPC; Aarhus and nuclear (ANCCLI – EC).

When looking at crisis communication: a European solution?, the first step is to look at what is already available:

- council directive on informing the general public in the event of a radiological emergency (89/618/euratom)
- Commission communication on the implementation (91/C 103/03)
- ECURIE, USIE, bilateral agreements

We still do not have established procedures or structures to establish "media events" (not during an emergency nor during an exercise). These "media events" could be, associated with cases like the Krsko event in 2008 or the Eastern Europe iodine contamination event in 2011. During Fukushima, many organisations wanted to assess the situation, but only a few had the capability to provide quick and reliable information. It is not possible for a long-lasting event to keep some NROs on alert. Inter-agency communication is also important and should be improved. Informal networks (contacts you know personally) are still one of the best mechanisms for quick and reliable information.

A need to share the capacity to analyse and to provide reliable assessments to be reliable exists, especially for small countries.

Do we need a European solution? Can we create a perfect system? Can we improve the situation? We can do much better.

Session 6: Summary of presentations

Current strategy for NRO communication – Europe

Ms. Karina De Beule, Spokesperson, FANC, Belgium

I would like to talk about how to become a reliable information source for the public and media. This should be done by managing a clear, coherent communication strategy, reflected in our daily attitude and communication as well as by showing every day we deserve to be seen as trustworthy, objective and reliable.

The WGPC established a working subgroup on transparency set-up in 2008 and presented the first results in 2010[1]. This subgroup distributed a survey and 18 countries participated. The objective was to establish good practice guidance for NROs on the implementation of transparency in order to promote confidence and consistency of practice across regulators. All countries had a legal basis for disclosure of information but practices on proactive disclosure of information vary among countries. Most NROs interact with or oblige industry to be more transparent. The Freedom of Information (FOI) Acts and the Aarhus Convention provide guidance on how information should be disclosed, but there are not always clear views on how to do this. Most of the surveyed countries have a four-week (30 day) timeframe to disclose documents. For sensitive (security) information, most countries edit or withhold parts of the publication.

All NROs have a website and recognise the importance of timeliness in communication. The aim is to become a point of reference for the public and media. There is a growing trend to release information about regulatory decisions. FANC publicises more and more peer reports and annual reports. INES is used as a way to communicate incidents and accidents.

All NROs put in place very good instruments, but now: how do we use them? How do we fill them with content?

Similarly, most NROs have started public engagement processes. For a real public engagement process, the FANC lacks the resources to do intensive engagement work. Therefore, we need to be more creative and innovative. In many countries, consultation is not the responsibility of the NRO, but of the operator or the government. Some formal engagement meetings take place in some countries, but mostly they are used to inform the public about specific actions. We consider it very important to communicate with the media. At FANC, we don't differentiate between classical and social media, it depends on the content. Most NROs have appointed spokespersons.

Most media activity was reactive and it still is. Some countries have guidelines for communicating with the press. Most NROs organise media training, but how this is done varies.

The societal context can differ in each country. According to the 2010 Special Eurobarometer 324 "Europeans and nuclear safety", the following elements from the public perception perspective need to be taken into account when communicating:

1. NEA/CNRA/R(2011) Commendable practices on transparency in Nuclear Regulatory Communication witht he Public. January 2011.

- radioactivity goes hand-in-hand with an extreme risk perception;
- the nuclear sector has a reputation for being 'secretive' and not trustworthy;
- general knowledge about radioactivity is below mediocre;
- the context in which we communicate stays polarised and is often strongly ideologised and influenced by the general discussion about nuclear energy;
- the sources deemed most trustworthy by the public are scientists (46%) and nuclear safety authorities (30%). In Belgium, only 5% of the population know the FANC;
- the media are a main information source for the general public in the case of an incident (TV 72%; newspapers 40%; internet 27%; radio 23%; magazines 18%; schools and universities 7%);
- too much use of 'specialist language';
- general little interest when there is no incident or accident;
- gap between technical and common language.

FANC is not communicating about the nuclear industry, but about the protection of the general population, workers and the environment. Our status is neutral and objective. Our competence goes beyond safety in nuclear power plants. It includes medical, natural, cosmic radiations, which provide many opportunities for communicating on subjects concerning daily life.

We have the instruments, but we need to work on the content. We have communication plans, but they need to be revised and we need to find a more integrated approach. Every member of the organisation is an ambassador.

Setting-up optimal communication with all levels is important. We should also know how to use social media and social networks in order to help the population understand and evaluate the information diffused. Media relations are an important instrument to come to people and population, who are not interested in what we are doing on a daily basis.

Crisis communication demands reliability, trustworthiness, prompt reactions and well-trained spokespersons. Our day-to-day approach is the best, daily exercise to prove on a continual basis that we deserve this trust.

Maintaining public confidence. Communicating the right information at the right time in a nuclear emergency

Ms. Sunni Locatelli, Director-General of the Strategic Communications Directorate, CNSC, Canada

Canada's response to Fukushima was immediate, intense and comprehensive. We monitored events 24/7 for several weeks. We disseminated information as the situation evolved; CNSC was first within the government of Canada. We liaised with federal, provincial and municipal levels of government and with our ambassador in Japan, supported the government of Canada's response (Minister of Foreign Affairs, CNSC President). We communicated immediate regulatory actions to confirm nuclear power plant safety and follow-up. The CNSC is working very hard to rebuild public confidence in the safety of nuclear power.

We decided to activate the Emergency Operation Centre at 10 am the morning of the accident. By 10:30 am the first message was sent to CNSC staff and by 3 pm the first public statement was issued and sent to our website subscribers. A decision was made to operate the centre 24 hours a day. To provide accurate information to the public, we

depended upon reliable sources of key information. We looked to the Japanese authorities (like TEPCO, NISA, JAIF), international agencies (IAEA, US NRC) and our own federal partners like Foreign Affairs and Health Canada.

Communication with the public began the same day of the disaster with the creation of an icon on our website leading to a Fukushima page. This page was dedicated not only to information provided internationally on Fukushima, but also to the safety of Canadian NPPs. Regular information updates, sometimes two or three times a day were provided, from 11 March through 1 April, then weekly or as significant developments occurred. We also provided information on CNSC activities. Many of the web postings were based on results from information received through our public information line or through social media monitoring. Media requests were dealt as they were received, but initially, we found that the media was more interested in people who do not support nuclear and more interested in speaking to the licensees.

For us, internal communication was as important as external communication. We had daily regular updates to our staff, weekly roll ups informing our staff about the activities of the emergency operation centre and about the day-to-day activities. We had our staff out in the field, working on a joint review panel for the potential new build. We had several hundred interveners participating in that forum. It was important to us that our staff were our ambassadors in the field, explaining the messages of the CNSC.

Canada's action plan was developed in the process and was presented publicly using interactive fora. We created the CNSC Fukushima Task Force Team. We held three rounds of public consultation. The report was completed in fall 2011. The president appointed an external advisory committee of non-nuclear experts.

Some of the key lessons learnt are:

- The public needs a single reliable source that harmonises critical information.
- In crisis, the public will look for a single reliable source.
- We were the first federal governmental organisation out in the public domain; we were considered very quick and a good resource for information.
- We reassured by checking figures and facts with international information sources.
- A critical spokesperson that can be prepared to respond to questions is important.
- At some point a health care person was considered to be more appropriate than the nuclear regulator's spokesperson because he had broader information.
- Be prepared, be prepared, be prepared. You can never be too prepared.
- We created a crisis dark site. The content is prepared in such a way that it can be adapted easily to an emergency.
- We trained key spokespersons who would not be involved in the event.
- We reviewed the web content for plain language and identified information gaps.
- We have now launched a Facebook page and will soon be launching a twitter account and YouTube channel.
- Technical information requires careful, consistent interpretation. It was important to get the facts right, especially on dose rates, provide examples and clear interpretation.
- The importance of working collaboratively with health agencies and sharing information needs to be stressed.
- Don't lose sight of day to day responsibilities. Even in a crisis, there are also critical on-going operational requirements.

- It was important to prepare the staff to support regular operations, co-ordinated at the senior management level.
- Social media has its merits if used with awareness. We ensured our online presence. Social media allows you to get your message across quickly, enough to preserve credibility as an information source. It supports understanding of what kind of content people are seeking. There are some important factors to ensure social success: senior management has to buy in, dedicated staff need to be in the loop, immediate response is key, Establish credibility and have social media followers before the crisis, use multi-platforms and tailor messaging.
- Building trust with the public is everyone's job and not just the regulator's.

Sources and measures for improving the public communication of Japan's nuclear regulatory body

Mr. Makoto Watanabe, Public Relations Officer, NISA, Japan.

We analysed and categorised the problems pointed out in interviews and questionnaires and identified 15 issues.

Issue 1: problems in obtaining information. NISA depended on information provided by TEPCO (contact with site programme);

Issue 2: accident was complex and had huge dimensions. NISA did not have enough staff to independently analyse and evaluate the information.

Issue 3: there is no function for confirming the reliability of analysis and assessment results performed by NISA;

Issue 4: public relations strategy is unclear;

Issue 5: information was concentrated only in the prime minister office. There was a gap between information in the prime minister's office and NISA;

Issue 6: division of roles and responsibilities was unclear;

Issue 7: problems concerning the spokesperson;

Issue 8: lack of human resources;

Issue 9: lack of human resources for translating material related to accident;

Issue 10: problems concerning the handling of uncertain information;

Issue 11: change from conventional PR to explain directly to people;

Issue 12: insufficient use of public hearings/public relations tools;

Issue 13: insufficient stakeholder communication.

Issue 14: information provided not only by PR of NISA, but various organisations. Collaboration with relevant organisations was insufficient;

Issue 15: preparation for responding to events that exceeded expectations was insufficient due to a break-down of communication infrastructure;

In response to the issues, NISA has developed with the following actions for the future:

Action 1: improve the technical expertise and response capacity of individual staff;

Action 2: improve the response capacity as an organisation (conduct crisis management training for management staff)

Action 3: improve the technical response capacity using external institutions.

Action 4: It is Important to clarify the division of roles between the different decision-making organisations;

Action 5: improve the awareness regarding public hearings / public relations in the entire organisation;

Action 6: Conduct practical training like media training to improve the response capacity of spokespersons;

Action 7: develop manuals concerning public relations to ensure the organisation can respond without depending too much on skills of individuals

Action 8: Utilising social media to ensure that information is provided in a timely manner;

Action 9: improve public hearings functions;

Action 10: share a common mind-set with news-related persons to prepare for emergencies during normal times;

Action 11: clarify the division of roles of the relevant organisations;

Action 12: build mechanisms for sharing information among relevant organisations;

Action 13: enhance international public relations functions by means of collaboration with the Cabinet Public Relations Office and the Ministry of Foreign Affairs.

It is our duty to share our experience to prepare NROs for future communication.

Towards improved preparedness and more effective co-operation in regulators' public communication

Mr. Risto Isaksson, Communication Officer, STUK, Finland

The Fukushima Daiichi nuclear accident attracted enormous attention in Finland during the spring of 2011. The very first moment when news about the Japanese power plant problems arose, the Finnish media adopted STUK as one of the main national information sources on the subject. The first three weeks were very demanding for those at STUK who were involved in serving the media and the public. The accident happened on 11 March and it was Friday, STUK put out the first newsletter about the situation in the afternoon and updated it twice. The Director-General of STUK gave the first interview that same evening. During the first three weeks STUK published more for the 40 press releases, the experts were interviewed hundreds of times in the media, dozens of those interviews were on live TV or radio interviews. STUK had a round the clock media service, used the social media as a tool - 'Facebook and twitter'- to support public communication, allowed the call centre to answer questions on the issue by phone. All this work came in addition to all the other authority work that had to be conducted.

STUK was the organisation responsible for updating the information on the situation and made recommendations in co-operation with the Ministry of Social Affairs, Ministry of Health, Customs, transport companies, Ministry of Foreign Affairs, etc. At the same time, STUK had to look at the information from Japan with all the means available.

STUK's task is to serve Finnish people if radiation or safety issues cause danger or concern. Finns staying in Japan could be in a real danger because of the nuclear power plant accident. STUK's policy is to be a primary speaker in a situation like this, this time, it was in close co-operation with the Ministry of Foreign Affairs that is responsible for informing Finnish citizens abroad.

In Finnish media, in March 2011, STUK was mentioned or was a commentator in 80% of the news stories. It had a main role as a source of information in one third of the

stories and in 97% of the stories STUK was seen as a neutral (independent) source of information.

STUK conducted a public survey with the aim to know what the Finns thought about the news and information received about Fukushima. The Finnish were very satisfied with the amount of information which was provided and the quality of the information was satisfactory. STUK was seen as a reliable source of information.

Apart from using Facebook and twitter, STUK regularly updated the web page and put up a dark site. STUK also had a continuous media service, established a media centre where Finnish journalists could stay for three days, responded to telephone questions and were always prepared to comment on the situation in the media.

Normal communication policy at STUK requires that every employee be encouraged to write and answer questions by the media and the public on the matter of their own expertise. But in special circumstances, like Fukushima, spokespersons are nominated to give the main interviews. STUK handled the Fukushima situation as a crisis. The emergency organisation consisted of a management group and four groups on accident assessment, radiological impact assessment, radiation advisory group and public communication. STUK had nominated experts in all the three groups (accident assessment, radiological impact assessment, radiation advisory). These groups nominated spokespersons, who were aware of the guidelines for communication, which had been agreed to by the management group. These spokespersons where experts in the field and were able to discuss with the media about rumours and unconfirmed information about what was being published in the media. When the situation calmed down, STUK counted that they had seven spokespersons and 23 assistants. The messages spokespersons gave to the media were not contradictory.

In the post-crisis, STUK had to think what to do if this crisis happens again, if this is close to Finland or even if it happens in Finland in the future. The question is which communication channels should be used if there are no resources to cover them all. In the survey previously mentioned, STUK asked about what sources of information the public used to get news about Fukushima. The television is the most important source of information for people even though the internet is constantly growing. Another question is how people use the internet in this special case. Even if social media is important, the survey indicated that at least 72% of the users of social media were also searching for information from other sources, like media websites.

STUK identified the following areas which need to be better developed for future crisis:

- more trained spokespersons for each area of expertise;
- clear order of priority about methods and tools that will be used and media that will be served when there are not enough resources;
- instead of one-on-one organised press conference, there was a need for regular briefings and these briefings should be webcasted;
- clear policy and practical guidelines for the use of social media;
- improvement of co-operation among authorities communicating with the media and public.

Annex 3

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Crisis Communication: Facing the Challenges

As manifested by an increasingly globalised media, a nuclear accident anywhere quickly becomes a potential concern for people everywhere. It is therefore of prime importance that nuclear regulators' communication strategies take into consideration the expectations and concerns of the public and provide sound information not only for the people of the affected country, but also for citizens worldwide. Public trust is a key element in being able to do so effectively and of particular importance when there are consequences for people or the environment. International co-operation can play a fundamental role in helping to improve crisis communication on national and global scales in the event of a nuclear accident or radiological emergency. These proceedings contain the papers, recommendations and conclusions of the workshop, which was attended by over 180 experts from 27 countries and 6 international organisations.

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