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

The Role of Nuclear Regulatory Organizations in Getting Information from a Foreign Event

Crisis Communication: Facing the Challenges
International Workshop
Madrid, Spain, May 9-10, 2012

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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.

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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.

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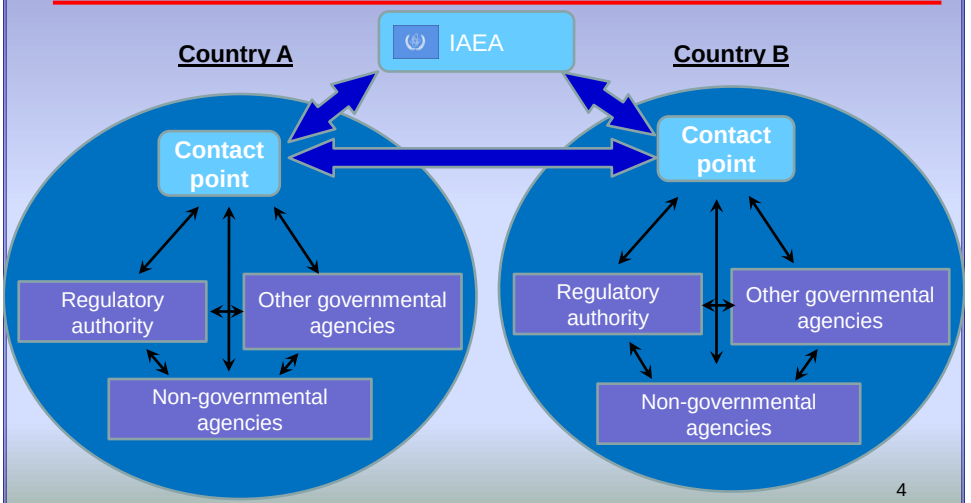
International mechanisms of notification of nuclear accident



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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.

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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.

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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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National system of emergency response in case of accident at Russian NPPs

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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

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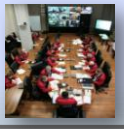
Emergency response in case of accident at foreign nuclear facilities

EMERCOM NEMC

Rostechnadzor IAC

ROSATOM SCC – Contact point under Conventions

Rosenergoatom CC



Contact point of a neighboring country

TSCs

- VNIIAES
- OKB GP
- NIKIET
- OKBM
- Kurchatov In.
- FEI
- FMBA em. centers
- NPO Typhoon
- IBRAE RAN

Video conferencing system

Data transfer system

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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).

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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.

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.

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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.

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.

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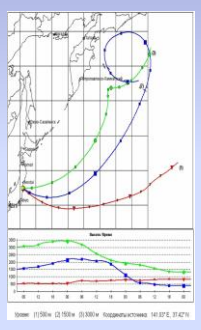
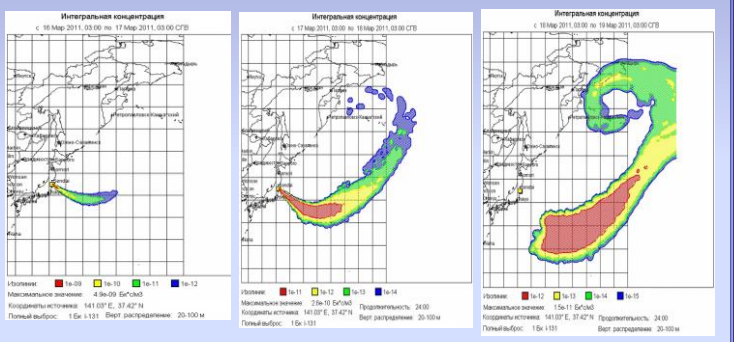
Involvement of regulatory authority in response to accident in neighboring state (Fukushima as an example)



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**

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.

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Thank you for your attention