

# **NRA's Commitment to Transparent Regulatory Process**

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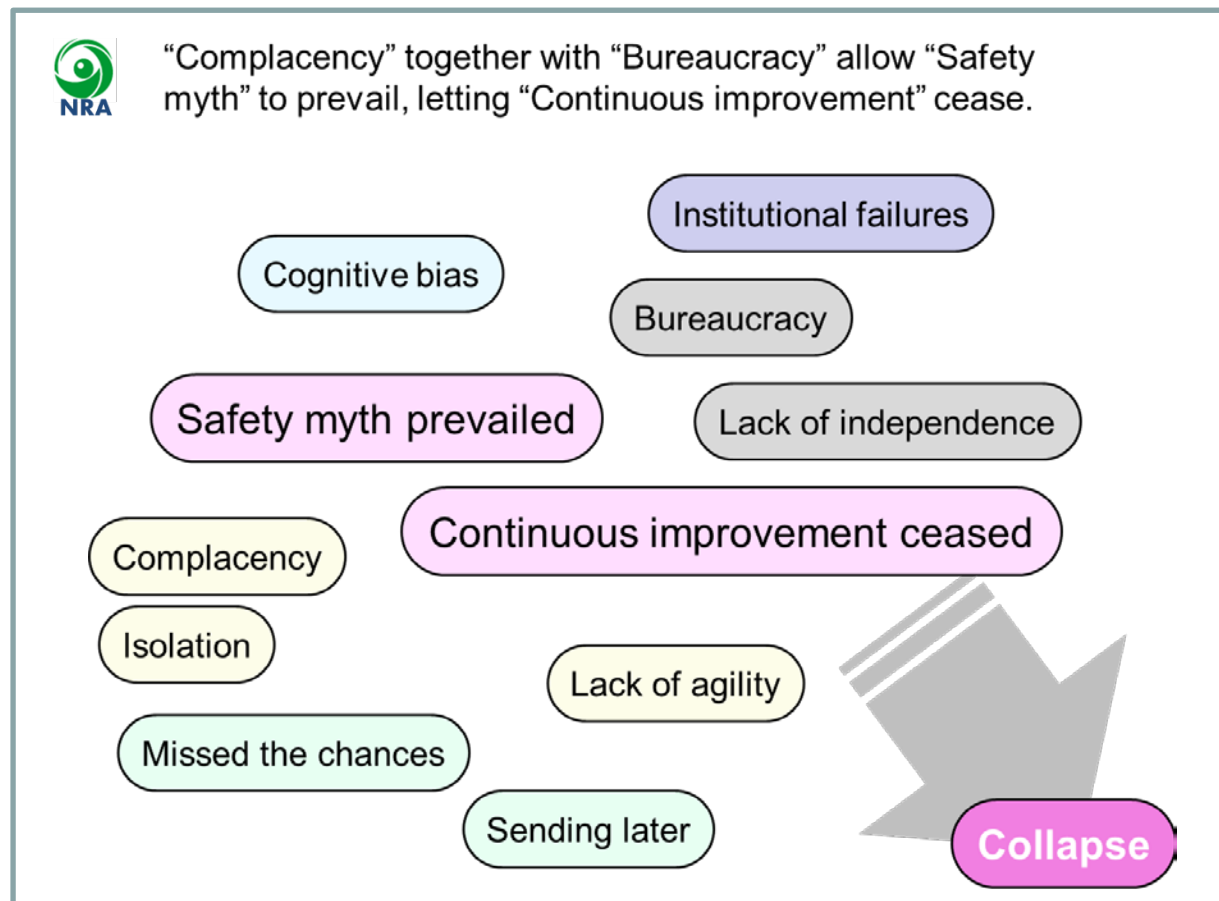
# Background: Lessons Learned from Fukushima Daiichi Accident

- NRA Commissioner Fuketa pointed out multiple elements by stating “**Complacency** together with **Bureaucracy** allowed **myth of safety** to prevail, having let **continuous improvement cease**.”

[1] OECD NEA **Workshop on Safety Culture** of Regulatory Body (June 2015)

- “The causes of the accident at the Fukushima Daiichi NPS not only include **technical failures** and **systematic administrative failures**, but also a set of factors that can be termed **societal failures**.”

[2] Independent Investigation Commission Report , Myth and Reality (2014)



# Myth of Safety

Government's Final Report (2012)[3]:

- ... the inability to capture such crises as a reality that could happen in our lives is the result of a **myth of safety** that existed among **nuclear operators including TEPCO** as well as **the government**, that **serious severe accidents could never occur** in NPPs in Japan.
- “**Basic Assumption**” in IAEA DG Report [4] is a similar concept.

**Why / How was “Myth of safety” born?** [2]

- ... **ideology** comprising two tiers: On the surface is a certain **social psychology** that **considers any discussion of the risks of nuclear accidents to be taboo**, while underneath lies the self-interest of “the nuclear power village” that **seeks to promote nuclear power**.
- The promotion of this myth was deemed a necessary step in **securing social consensus on the introduction of nuclear power**, creation of an atmosphere **willing to tolerate plant construction...**

# Before the Fukushima Daiichi accident public relations (PR) activities were quite active.

- 2) **Placement of Regional PR Officers for Nuclear Safety** (April 2004)
  - .....
- 3) **NISA executives visit and provide information to local governments**
  - ... provide direct explanations of important matters concerning nuclear safety regulations.
  - More than 100 visits per annum have taken place in recent years.
- 4) **Expansion of public hearings and PR activities**
  - Dialog-style public hearings/PR activities and public hearings/PR activities with residents' participation is implemented.

**OECD/NEA Workshop on Transparency of Nuclear Regulatory Activities, Tokyo/Tokai-mura, May 2007** [5]

**Address in Opening** by Dr. Kenkichi Hirose, **Director-General, NISA:** Nuclear and Industrial Safety Agency

Example of **NISA's public meetings** with **participation of local people**

- These activities were identified as “**Good practices**” in the **IAEA IRRS Mission** taken place in **June 2007** [6] [See **App. 1**]

“Plu-thermal” Symposium (Ikata)



# Lessons Learned from PR Activities before the Fukushima Daiichi accident

- Importance of “**regulatory independence**”:
  - The NISA participated in the **public hearings** held by the government and other **public meetings** (symposiums, etc.) **together with promotion bodies**.
  - The regulatory body, as a consequence, **contributed to prevailing “Myth of safety.”**
- In turn, the regulatory body also became **trapped by “Myth of safety”**
  - Presumably, it became **difficult to introduce new requirements** based on state-of-the-art knowledge, by thinking
    - If new requirements are introduced, **people might misunderstand** that **previous ones were wrong** or **accidents would soon occur**, etc.

# Current Status of NRA

- The NRA had developed the **new regulatory requirements** for NPPs within approximately **10 months** since the NRA was established in **September 2012**.
  - A total of **26 units** (**17 PWRs** and **9 BWRs**) in **16 sites** have applied for **conformity review** to the new requirements.
  - Additionally, a total of **20 nuclear fuel cycle facilities, etc.** are being reviewed.
  - Up to now, the NRA has granted permission to **9 PWRs** of which **Sendai Units 1 and 2 are in operation**.
- The NRA had also reviewed the applications for **extension of operation limit** (40 years) from **3 units in 2 sites** and granted permissions by November 2016.

# Regular Press Conference of Chairman Tanaka

## Break with “Myth of Safety”

**February 18, 2015**

- By trying to explain the public **in an easily understandable manner** that the nuclear power generation is safe, in the end, we went into the situation where **we had to give up our efforts for continuous improvement of safety.**
- It may be true that the local communities near the nuclear power plants **tend to wish to believe “absolutely safe.”**
- We NRA learned a lesson from the Fukushima Daiichi accident that we shall **break with “Myth of safety”** and I believe that the local communities should also learn it as well.



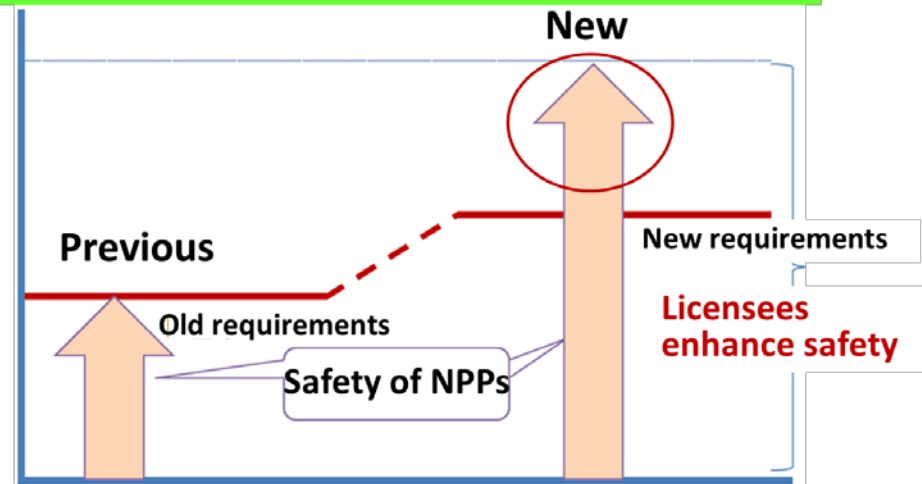
## Safety Enhancement beyond New Requirements

March 22, 2016 at Japan National Press Club [7]

- Safety regulation had entirely lost trust from the public. Is it really possible to recover?
- From this viewpoint, **the NRA has held basically all the meetings in public**, including the **Commissioners' Meeting** and **Conformity Review Meetings**.
- It's difficult to achieve but worth doing it. It has **made us strong**.
- Licensees tend to say **"It's safe because safety regulation confirmed it."** I have said repeatedly **"It's wrong."** This is still not well recognized. There seems to be a long way to go.



### Important Matters on Nuclear Safety



Not satisfied with conformity to the regulatory requirements, it's fundamental that licensees need to continue to make efforts for further enhancing safety.

# NRA Commissioners' Meeting Held in Public

- Regulatory decision making is done at the **NRA Commissioners' Meeting**:
  - Once every week: A total of **237 times** since establishment of NRA
    - **Full open to the public / media**
    - **Live streaming through YouTube:**  
A total of **328 hours**
  - **Press conference** just after the meeting by Chairman Tanaka ⇒ also **live streaming**
  - **All the materials** discussed in the meeting as well as **minutes** (stenographic records) are uploaded on the NRA's website.
  - **Public comments** for important decision making: a total of **35,391 comments** received for **52 cases**.



Commissioners' Meeting



Press conference

# Pursuing Fully Transparent Regulatory Decision Making Process

## ■ Commissioners' Meeting

- **Approx. 4 Times / Month**

## ■ Review Meetings on Conformity to New Regulatory Requirements

- Meetings of **NRA Study Teams** for various rulemaking, etc.

- **Total of 2876 hours/916 meetings**

- Meetings of **Advisory Committees**, etc.

- **Total of approx. 20 Times / Month**

## ■ Hearings from licensees, etc. :

- For example, **166 hearings** from licensees and **296 interviews** with licensees in Oct. 2016
- **Approx. 400 Times / Month**

Statistics: As of November 15, 2016  
since establishment of NRA

- **Full open** to public and media
  - **Live streaming** through **YouTube**
  - **Detailed minutes** and **materials used** are uploaded on NRA's website
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- **Minutes** and **materials used** are uploaded on NRA's website

# NRA took immediate measures based on public comments. [10]

- In Oct. 2016, Commissioners' Meeting discussed the public comments collected on **draft conformity review report** of Mihama-3:
  - There's a comment on the **impact assessment of volcanic ashes on the air intake filters** for **emergency diesel generators**:



St. Helens: U.S. Geological Survey [8]

**Comment:** Although a value of concentration,  **$3,241\mu\text{g}/\text{m}^3$** , measured at **Eyjafjallajökull in Iceland in 2010** was used, it was reported to be more than  **$30,000\mu\text{g}/\text{m}^3$**  in the case of **Mt. St. Helens** in U.S. in 1980”.

**NRA's response:** Immediately, the NRA requested the licensee to conduct re-assessment by **using the value at St. Helens**.

- Then, the NRA requested **the seven other units** which had already been granted permission to conduct re-assessment.  Backfitting

Table 1. **A public involvement continuum,...** : OECD/NEA, **Radioactive Waste Management, Stakeholder Involvement in Decision Making (2015)** [11]

Blue letters indicates what we are mostly doing.



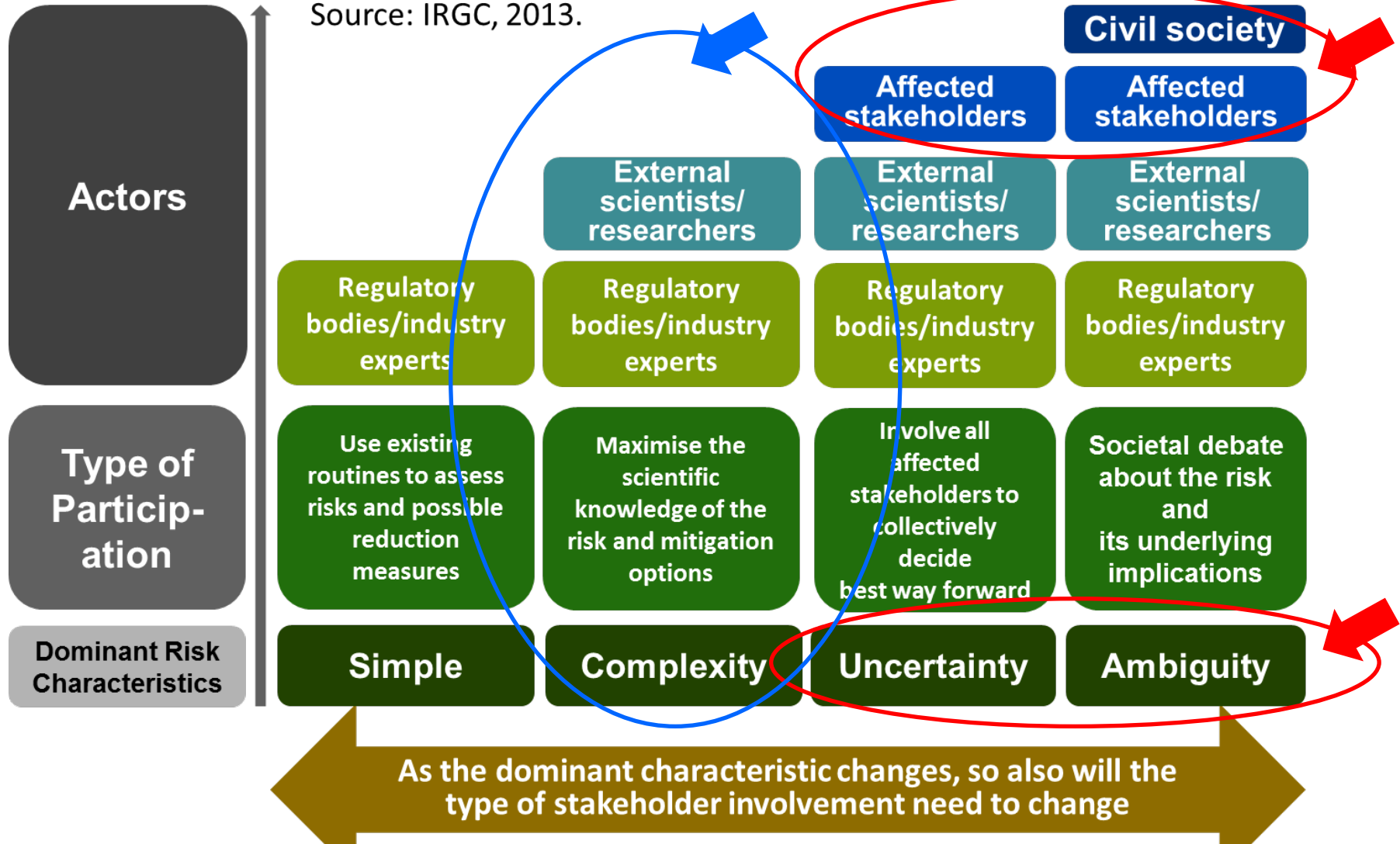
Low level of public involvement or influence		Mid-level	High level of public involvement or influence	
Inform	Consult	Engage	Collaborate	Partnering
Inform, educate, share or disseminate information	Gather information, views	Promote two-way dialogue	Commit to frame issues and debate options together	Partner in selecting and implementing solutions
Increasing literacy; inducing behavioural changes	Modifying policies in accordance with public preferences and/or reaching an informed consent		Obtaining the self-commitment of each participant as well as contributions that may result in binding processes and decisions	
“We will keep you informed”	“We will keep you informed, listen to you, and provide feedback on how your input influenced the decision”	“We will work with you to ensure your concerns are considered and reflected in the alternatives, and provide feedback on how your input influenced the decision”	“We will incorporate your advice and recommendations to the maximum extent possible”	“We will implement what we decided together”

**Note:**  
 ■ Regulatory decision making on “Radioactive waste” may involve matters **thousands of generations of future** or more with **large uncertainty/ambiguity**. [See next slide]

Source: Adapted from IRGC, 2013; Health Canada, 2000; Abelson and Gauvin, 2006.

**Fig. 1. The risk management escalator**  
 OECD/NEA, Radioactive Waste Management,  
 Stakeholder Involvement in Decision Making, (2015) [11]

International Risk Governance Council  
 Source: IRGC, 2013.



“A resource guide for developing and implementing science-based stakeholder involvement research, policy, strategies, and practices”, *Stakeholder Engagement Resource Guide*, <http://stakeholder.irgc.org/resource-guide>.

# Summary

- The NRA's **new regulatory requirements** came into force in **July 2013**. Currently, **conformity reviews** to the new requirements are in progress (Backfitting).
- “**Myth of safety**” (or “**Basic Assumption**” in IAEA DG Report) is considered to be one of the **important root causes** of the Fukushima Daiichi accident.
- “**Breaking with safety myth**” is our top priority mission and the only way to gain **trust from the public**.
- Based on this recognition, we are taking a clear policy pursuing **fully transparent regulatory decision making process**. It is difficult to achieve but worth doing it. It has made us “**strong**”. [See next slide]
- We believe that it's a good way, at least for the time being, to give priority to **avoiding revival of “Myth of safety”** and **pursue “Continuous improvement of safety”**.

# What does “Strong” mean?

**Mike Weightman,**

presented at IAEA 40<sup>th</sup> CSS meeting, October 2016.

## What do I mean by strong?

Inner strength not brute strength:

- Strong enough to listen and absorb others’ ideas
- Strong enough to not be afraid of challenge
- Strong enough to welcome new ideas and learn from others
- Strong enough to tell it as it is
- Strong enough to recognise when you got it wrong and show that you are learning from it



David and Goliath  
Skills, Strategy & Inner Strength  
for Success



# References

- [1] **OECD NEA/CNRA/ CSNI/CRPPH Joint Workshop on Challenges and Enhancements to Safety Culture of the Regulatory Body**, Paris, June 3, **2015**.
- [2] **Independent Investigation Commission on the Fukushima Nuclear Accident**, “The Fukushima Daiichi Nuclear Power Station Disaster – Investigating the Myth and Reality,” Edited by Mindy Kay Bricker, Published in association with the Bulletin of the Atomic Scientists and the Rebuild Japan Initiative Foundation, First published **2014**.
- [3] **Government’s Final Report**: Final report, Investigation Committee on the Accident at Fukushima NPS of TEPCO, July 23, **2012**.
- [4] **IAEA DG Report**: The Fukushima Daiichi Accident, **Report by the Director General and Technical Volumes 1 to 5 (2015)**.
- [5] **Transparency of Nuclear Regulatory Activities**, OECD/NEA Workshop Proceedings, Tokyo and Tokai-mura, 22-24, May **2007**.
- [6] **IRRS Mission Report (June 2007)**: International Regulatory Review Service (IRRS), Report To the Government of Japan, Tokyo, Japan, 25 To 30 June **2007**.
- [7] **Press Conference of Chairman Tanaka at Japan National Press Club (JNPC)**, March 22, **2016** (in Japanese).
- [8] **Regular Press Conference of Chairman Tanaka**, February 18, **2015** (in Japanese).
- [9] **U.S. Geological Survey**, [https://volcanoes.usgs.gov/volcanoes/st\\_helens/geo\\_hist\\_2004\\_2008.html](https://volcanoes.usgs.gov/volcanoes/st_helens/geo_hist_2004_2008.html)
- [10] **On assessment of impacts of falling objects from volcanic activity on the nuclear power plants**, Secretariat of NRA, October 26, **2016** (in Japanese).
- [11] **Radioactive Waste Management, Stakeholder Involvement in Decision Making: A Short Guide to Issues, Approaches and Resources**, OECD **2015**, NEA No. 7189.

- Good Practice:** NISA's relationship management (RM) programme is a well-structured and comprehensive programme that reflects best practice.
- Good Practice:** Communication with the public at the local level is well-structured and allows for regular and positive exchanges between NISA, the public and the operators.
- ...focused on managing the interfaces with NISA's external stakeholders including licensees, the public, local communities, media, other government departments and international organizations to further improve the effectiveness and transparency ... and to build public confidence and trust.
  - ... introduced new initiatives such as enhanced participative public hearings and dialogues, the use of newsletters and email newsletters and providing information through CATV.