

# How to revise nuclear safety regulations and guides?

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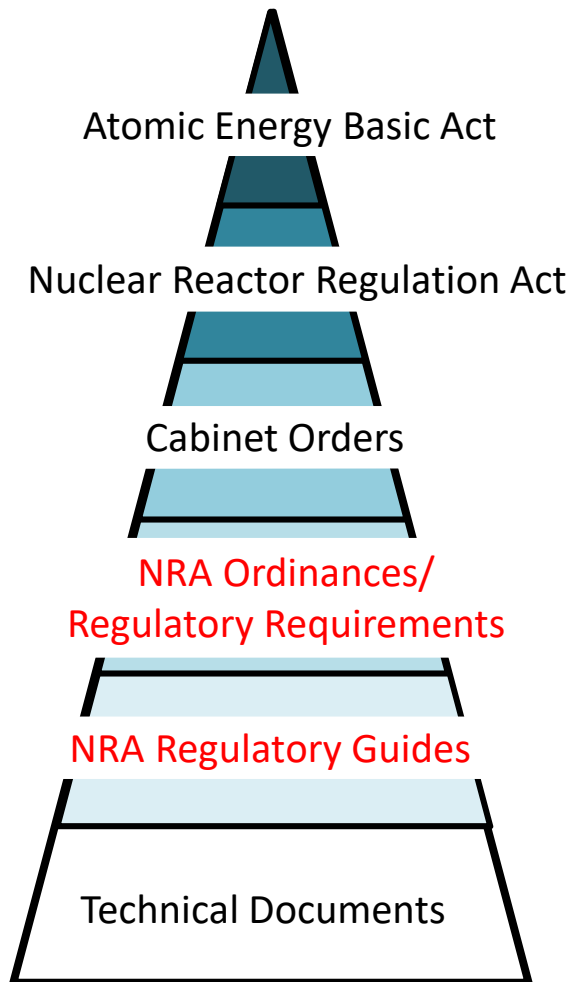
**1. Why need to revise?**

**2. How to revise?**

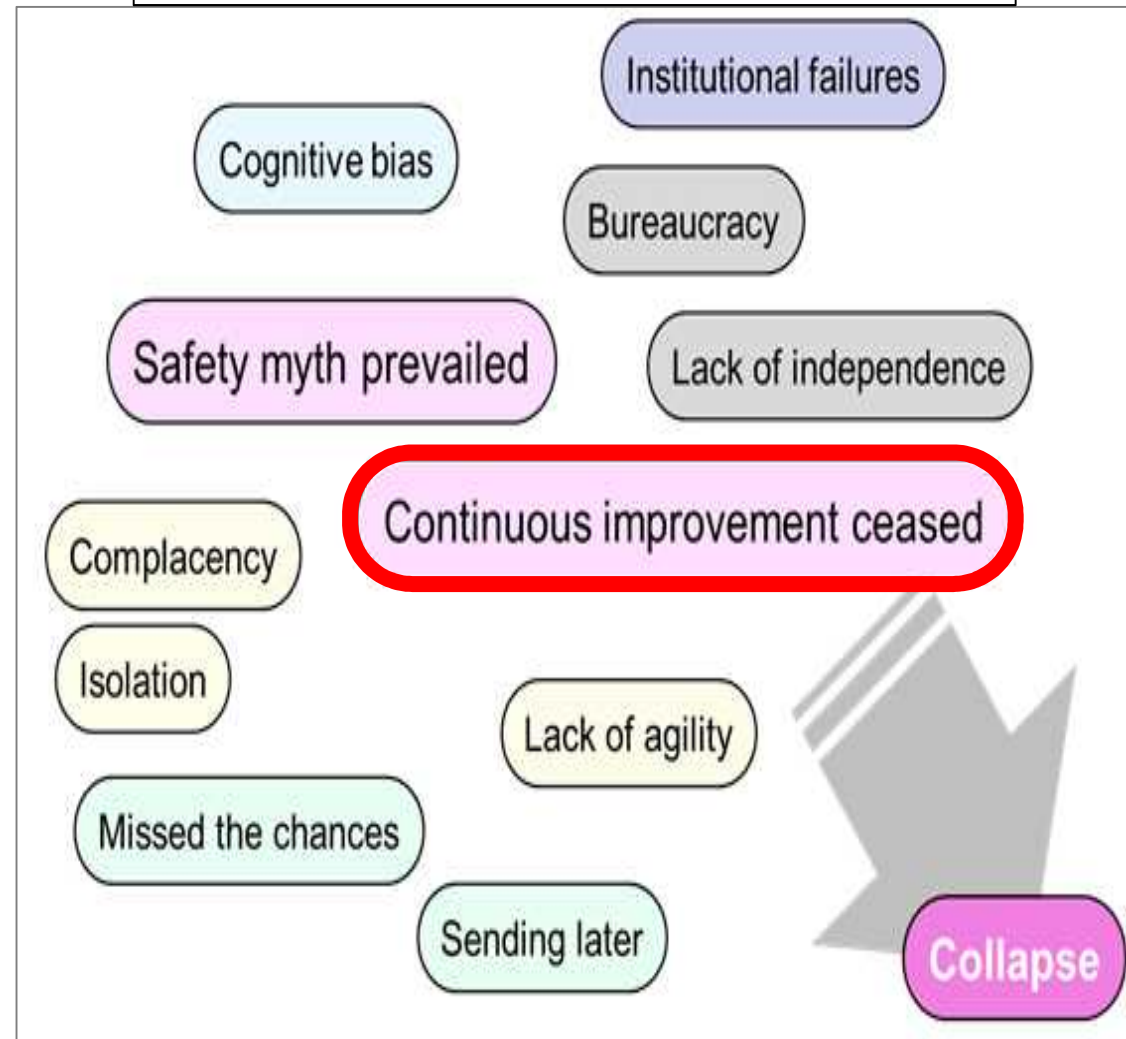
**3. Revise and what's next?**

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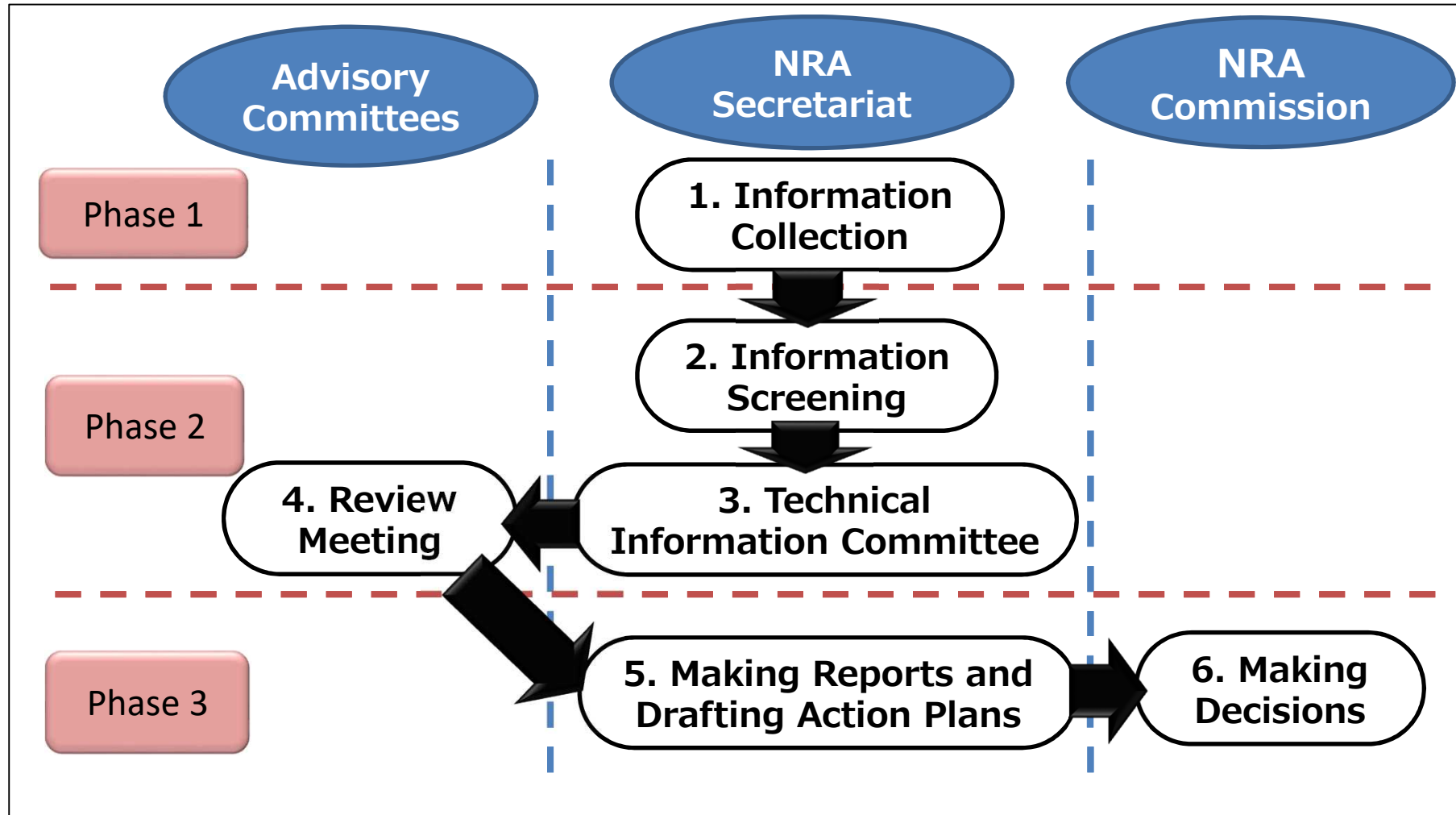
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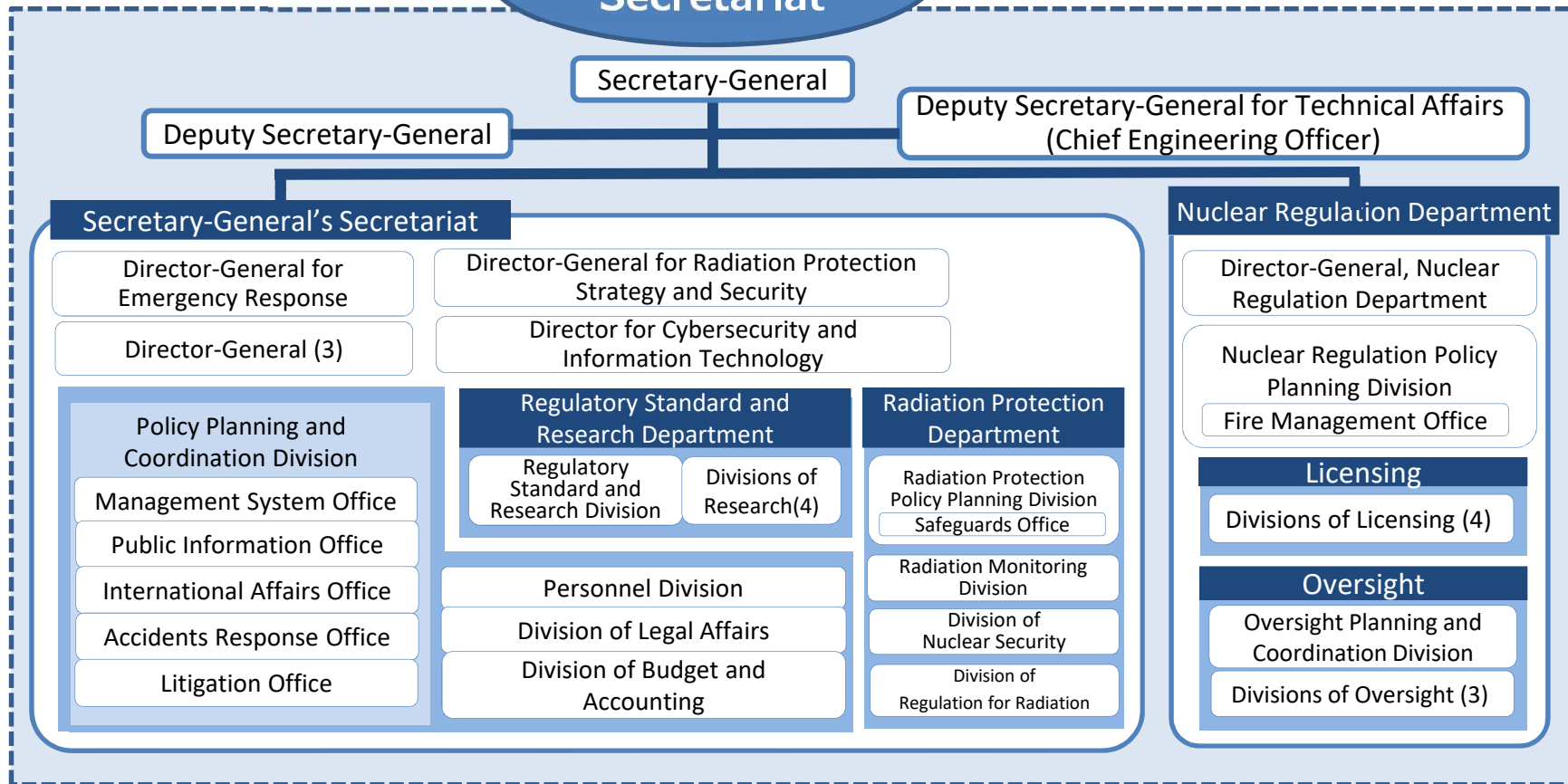
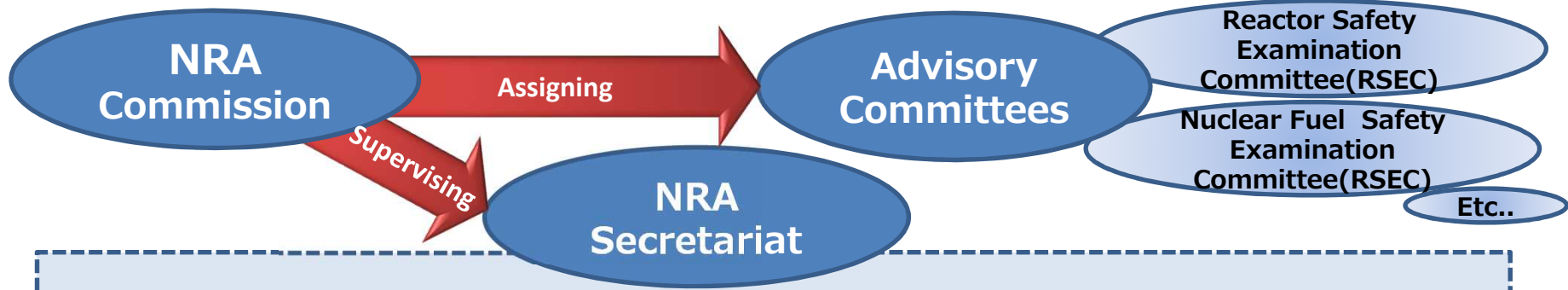
The lesson from TEPCO's Fukushima Daiichi Nuclear Power Station Accident



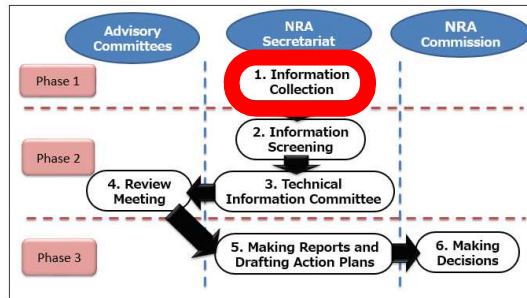
## 2. How to revise?



# 2. How to revise?



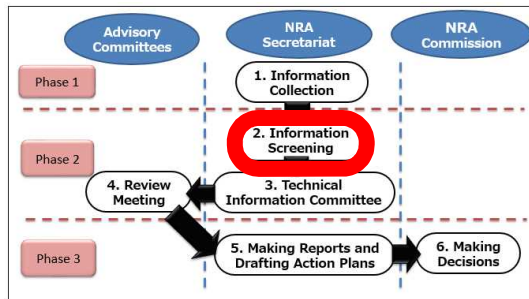
# 2. How to revise?



## 1. Information Collection

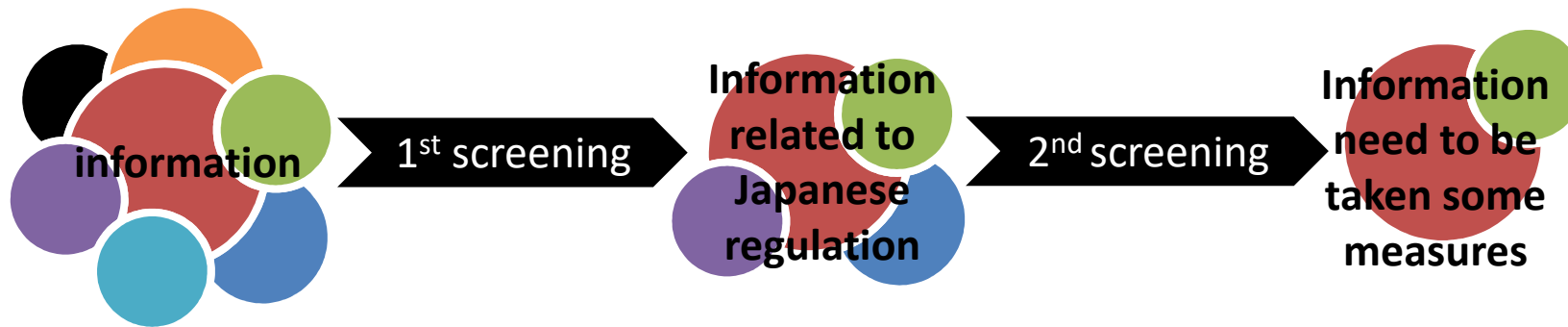
- NRA Secretariat has a system to collect and evaluate information related nuclear safety all over the world.
- NRA's classification of information are as below six;  
(A) troubles and incidents, (B) regulatory experiences, (C) overseas regulatory experience, (D) safety research, (E) international standards and (F) insights from academies.
- Main information sources are as below;  
IAEA Nuclear Events Web-based System(NEWS) / Incident Reporting System(IRS) / Incident Reporting System for Research Reactors(IRSRR) / Fuel Incident Notification and Analysis System(FINAS)/...  
US Generic Communications Bulletins and Generic Letters / Information Notices / Regulatory Issue Summaries / ...  
Domestic Events event reports to NRA / Nuclear Information Archives(NUCIA) / ...

# 2. How to revise?

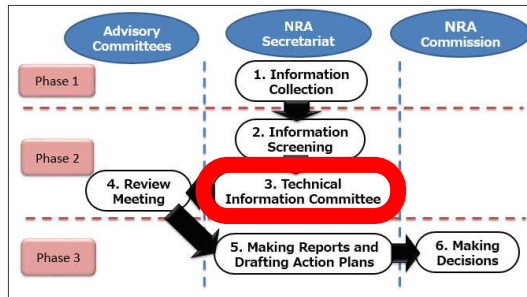


## 1. Information Screening

- Two steps of information screening.
- In the first steps of screening process, information with potentially related to Japanese regulation is chosen.
- In the second step, information that need to be taken some measures is selected.



## 2. How to revise?



### 3. Technical Information Committee

- Technical Information Committee is held to review the information screened through the former process.
- The TI Committee consists of specialists inside the NRA Secretariat.
- The TI Committee determines actions to be taken.
  - "Information notice" to licensees.
  - New requirements and/or guides.
  - Amendments to existing requirements and/or guides.
- The TI Committee makes reports to the Advisory Committee.



## 2. How to revise?



### 4. Reviewing by the Advisory Committees

- Two main Advisory Committees;
  - Reactor Safety Examination Committee(RSEC)
  - Nuclear Fuel Safety Examination(NFSEC)
- The Advisory Committee consists of specialists **outside** the NRA Secretariat.
- The Advisory Committees examine information and the reports that submitted by the Technical Information Committee.
- The Advisory Committees provide advices to the NRA.

## 2. How to revise?



### 5. Making Report and Drafting Action Plans

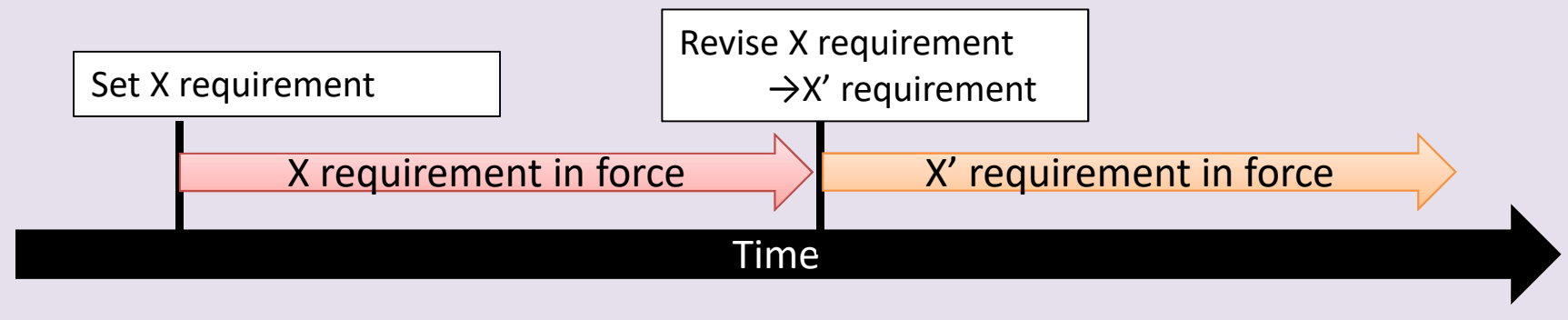
### 6. Making Decisions

- NRA Secretariat makes reports and drafts action plans as the result of information collection, screening, reviewing and taking consider of advice from Advisory Committees.
- NRA Commission makes decisions up on to the reports and the action plans;
  - whether or not;
  - Feedback to the regulations and/or guides.
  - Inform to licensees and upload to web side.

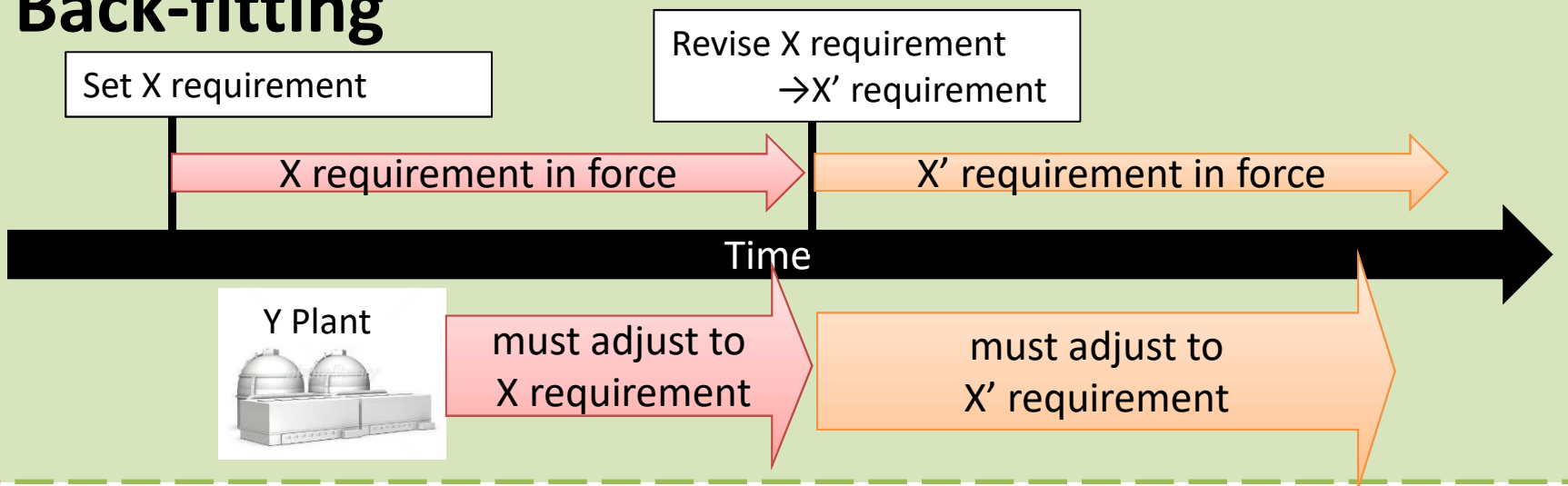
# 3. Revise and what's next?



## Revise and Reflect to regulations and/or guides



## Back-fitting



# 3. Revise and what's next?



## Back-fitting examples;

- ✓ Single-phase open circuit
- ✓ Toxic gas releases
- ✓ **HEAF: High Energy Arcing Faults**



Onagawa-1 M/C6-1A

Source: Tohoku Electric Power, May 2011  
<http://warp.da.ndl.go.jp/info:ndljp/pid/8814249/>  
[www.nsr.go.jp/archive/nisa/earthquake/files/houkou230530-2.pdf](http://www.nsr.go.jp/archive/nisa/earthquake/files/houkou230530-2.pdf)

- ❑ At Onagawa unit1, a HEAF event took place inside the metal-clad switchgear during the Tohoku Earthquake on March 11, 2011.
- ❑ The NRA carried out an experimental study and also participate in the OECD/NEA Joint Research Project HEAF.
- ❑ The NRA amended the regulatory requirements for NPPs and reprocessing plants to prevent HEAF event.

# 4. Conclusions

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- Revising regulations and guides is needed for continuous improvement.
- With solid and systematic approach to revise, solid and fruitful results come.
- No hesitation for further safety.

***Thank you for your attention.***



***Any comments or questions?***