

The status report of nuclear licensees about manufacturers inappropriate act

June 26,2019

Nuclear Regulation Authority Japan

1. Background

Since inappropriate act concerning the product of Kobe Steel, Ltd. and its subsidiary companies were announced in public on October 8, 2017, similar or same kind of inappropriate act by manufacturers were intermittently confirmed.

In order to confirm the influence of these inappropriate act on the safety of nuclear facilities, the NRA has been collecting information of the status for the investigation conducted by the utilities through the research by the local Nuclear Regulation office and the interview with licensee in the NRA head office.

Information that has been obtained so far is reported.

2. Contents and the status of inappropriate act relating to nuclear facilities

The main manufactures and products related inappropriate act that relates to the nuclear facilities that has been confirmed so far are as follows:.

- ① Kobe Steel, Ltd. and the subsidiary companies (metallic material etc.)
- ② Mitsubishi Materials Corporation and subsidiary companies (seal material and aluminum tube, etc.)
- ③ Subsidiary company of the Toray Industries, Inc. *(tire cord etc.)
- ④ Subsidiary company of AGC Ltd. *(centrifugation tube)
- ⑤ Ube Industries, Ltd. and subsidiary companies (coating material for insulation of cable etc.)
- ⑥ NGK Insulators, Ltd. (insulator etc.)
- ⑦ Hitachi Chemical Ltd. (lead-acid storage battery and electrolytic capacitor, etc.)
- ⑧ Fujikura Ltd. and subsidiary companies(cable etc.)
- ⑨ Tokyo Precision Instrument Co., Ltd. (hydraulic equipment)
- ⑩ KYB Ltd. and subsidiary companies (oil damper for seismic isolation/vibration control)
- ⑪ Subsidiary company of Kawakin Holdings Co.,Ltd (oil damper for seismic isolation/vibration control)
- ⑫ Subsidiary company of Mitsubishi Electric Corporation (rubber product)
- ⑬ Subsidiary company of Mitsubishi Electric Corporation*(castiron products)

- As for 3* and 4* , relation to safety of the nuclear facilities is not confirmed, and for 13* , collection of information is under way currently.

In some cases, such product has been already shipped to the nuclear facility, and is utilized actually. Each licensee has witnessed into the manufacturers facilities, investigated and confirmed the quality assurance system, past data of inspection and test etc. and concluded that there is no problem on the safety with the product concerned. Moreover, when the licensee could not confirmed because the past data has already lost, they have taken measures such as confirmation by an additional inspection or test, or the alternation to brand new product etc.

The outline of each inappropriate act are shown in the Appendix.

The example of the case that the product confirmed inappropriate act or with the possibility has been supplied and used in the nuclear facilities are shown below:

In the report which the NRA has received so far, there is no problem confirmed for the safety of nuclear facilities.

—Kobe Steel, Ltd. and subsidiary companies (metallic material etc.)

Cooling water piping etc. related to the emergency diesel generators

- Mitsubishi Materials Corporation and subsidiary companies(seal material and aluminum tube, etc.)

Seal material for pump etc.

- Ube Industries, Ltd. and subsidiary companies (coating material for insulation of cable etc.)

Optical cable for level indicator of the tank for contaminated water disposal system etc.

- NGK Insulators, Ltd. (insulator etc.)

Insulator etc. for the emergency high-voltage bus duct

- Hitachi Chemical Ltd. (DC power battery and electrolytic capacitor etc.)

Emergency DC power battery etc.

- Fujikura Ltd. and subsidiary companies (cable etc.)

Cable etc. for the Safety Equipment outside Primary Containment Vessel

- Tokyo Precision Instrument Co., Ltd. (hydraulic equipment)

Oil Pressure Valve etc. for RCIC system

- KYB Ltd. and subsidiary companies (oil damper for seismic isolation/vibration control)

Oil damper for seismic isolation in the Emergency Support Center Building

- Subsidiary company of Mitsubishi Electric Corporation (rubber product)

Gasket etc. for air circuit-breaker of Emergency DC Power supply system

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| Manufacturer | Kobe Steel, Ltd. and the subsidiary companies* |
| Date for announcement | October 8,2017 |
| Outline of inappropriate act | Falsification and fabrication of inspection result data of metallic materials etc. |
| Licensee who reported | Hokkaido Electric Power Co. Inc., Tohoku Electric Power Co. Inc., Tokyo Electric Power Company Holdings, Chubu Electric Power Co. Inc., Hokuriku Electric Power Company, Kansai Electric Power Co. Inc., Chugoku Electric Power Co., Shikoku Electric Power Co. Inc., Kyushu Electric Power Co.Inc., Japan Atomic Power Company, Electric Power Development Co.Ltd., Japan Atomic Energy Agency, Japan Nuclear Fuel Limited, Other Nuclear Fuel facilities etc.,** |
| Status of the Nuclear Facility & Evaluation result of licensee | <p>- piping to be replaced inside heat exchanger was supplied to [Fukushima Daini NPP Unit 3] (Inappropriate act) Omit to measure some portions of outer and inner diameter of piping (Licensee's evaluation & measures) No problem because the piping is not used yet</p> <p>- Cooling water piping etc. for the emergency diesel generators was supplied to 【Tomari NPP Unit 1】 (Inappropriate act) Falsification of analysis result of copper component (Evaluation & countermeasures of the licensee) Re-analysis was executed, and the result was no problem.</p> <p>- Parts of new centrifuge to be manufactured in the future was supplied to 【 Japan Nuclear Fuel Limited 】 (inappropriate act) Measured Result of hardness measured by new replaced instrument was higher than that measured by previous instrument, so the data was falsified in a manner that the gap was added to the newly measured result (Evaluation & countermeasures of the licensee) The part was re-examined in the other inspection organization. The hardness was almost same, and it was judged there is no problem for the soundness of the part.</p> |

*; Subsidiary companies are Kobelco & Materials Copper Tube, Ltd., Shinko Metal Products Co., Ltd., Shinko Aluminum Wire Co., Ltd., Kobelco & Materials Copper Tube (M) Sdn. Bhd., Kobelco & Materials Copper Tube(Thailand) Co., Ltd., Suzhou Kobe Copper Technology Co., Ltd., 神鋼真岡総合サービス株式会社(only in Japanese), Kobelco Research Institute, Inc., Nippon Koshuha Steel Co., Ltd., Shinko Wire Company, Ltd., Jiangyin Sugita Fasten Spring Wire Co., Ltd., Kobelco Spring Wire (Foshan) Co., Ltd., Shinko Kohan Kako, Ltd., 株式会社カムス(only in Japanese), Shinko Engineering Co., Ltd., Kobelco Eco-Solutions Co., Ltd.

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| ** : Refining facility, research and test reactor facility, test and development stage power reactor facility, reprocessing facility, waste | Mitsubishi Materials Corporation and subsidiary companies* |
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| <p>disposal facility, waste storage facility and usage facility (excluding the "user of material which does not correspond to Article 41 of "ordinance concerning the regulation of the nuclear source material, the nuclear fuel material, and the nuclear reactor"(hereafter, it is referred to as "Ordinance").) Manufacturer</p> | |
| <p>Date for announcement</p> | <p>November 23,2017</p> |
| <p>Outline of inappropriate act</p> | <p>(Records of dimensional inspection and material property measurement value of seal materials and aluminum tubes were falsified so that the data meets the requirements of customer's standards or internal specifications.)</p> |
| <p>Licensee who reported</p> | <p>Hokkaido Electric Power Co. Inc., Tohoku Electric Power Co. Inc., Tokyo Electric Power Company Holdings, Chubu Electric Power Co. Inc., Hokuriku Electric Power Company, Kansai Electric Power Co. Inc., Chugoku Electric Power Co., Shikoku Electric Power Co. Inc., Kyushu Electric Power Co.Inc., Japan Atomic Power Company, Electric Power Development Co.Ltd., Japan Atomic Energy Agency, Japan Nuclear Fuel Limited, Other Nuclear Fuel facilities etc.,**</p> |
| <p>Status of the Nuclear Facility & Evaluation result of licensee</p> | <p>- Seal materials for pump mechanical seals or solenoid valves etc. was supplied to [Tomari, Higashidori, Onagawa, Kashiwazaki Kariwa, Fukushima Daiichi , Fukushima Daini, Tokai Daini, Hamaoka, Shika, Tsuruga, Ohi, Takahama, Shimane, Ikata, Genkai, Sendai, and Oma] (inappropriate act) Falsification of inspection results such as hardness, tensile strength (Licensee's evaluation and measures) The original data of inspections were reviewed, and confirmed that same kind of falsification was not conducted, and the original data meets the licensee's requirements. In case the original data could not be reviewed, the product (solenoid valve) was replaced. Even though there was no falsification, but the data does not meet the requirements or there is possibility that it does not meet the requirements, it was confirmed that the licensee's requirements are met or the product was replaced. If it is the general industrial product, and it is hard to identify the manufacturer, such as gasket seals utilized for the fuel oil system of automobiles, it was confirmed that there is no leakage etc.by the daily inspection and it was judged there is no problem.</p> <p>- Aluminum tube used for new centrifuge to be</p> |

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| | manufactured in the future Was supplied to [JNFL] (inappropriate act) For the inspection to confirm mechanical properties, different inspection method from JIS standards was adopted for the inspection. (Licensee's evaluation and measures) JNFL investigated the integrity of the aluminum tube concerned in other inspection agency, and confirmed that there is no problem on the integrity of the aluminum tube delivered. |
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*; Mitsubishi Materials Corporation, MITSUBISHI CABLE INDUSTRIES, LTD, MITSUBISHI SHINDOH Co.Ltd, Mitsubishi Aluminum Company, Ltd, 立花金属工業株式会社(only in Japanese),DIAMET CORPORATION

**; Refining facility, research and test reactor facility, test and development stage power reactor facility, reprocessing facility, waste disposal facility, waste storage facility and usage facility (excluding the "user of material which does not correspond to Article 41 of " Ordinance") .)

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| Manufacturer | Ube Industries, Ltd. and subsidiary companies* |
| Date for announcement | February 23, 2018 |
| Outline of inappropriate act | Part of inspections of product, mainly the polyethylene etc., used for the coating material of insulation of electric cables, based on the contract with the customer was not executed. |
| Licensee who reported | Tohoku Electric Power Co. Inc., Tokyo Electric Power Company Holdings, Japan Atomic Energy Agency, Japan Nuclear Fuel Limited, Other Nuclear Fuel facilities etc.,** |
| Status of the Nuclear Facility & Evaluation result of licensee | (coating material for cable insulation etc.) Supplied to 【Fukushima Daiichi, JNFL Reprocessing Plant】 (Inappropriate act) Part of the product material (polyethylene) inspection was not executed. (Licensee's evaluation and measures) It is judged that there is no impact on the safety of nuclear facilities because the result of the inspection of the stored sample by 宇部丸善ポリエチレン (Ube Maruzen Polyethylene ;only in Japanese) and the result of the completion test of the product by the cable manufacturer was good. |

* Ube Industries, Ltd. , Ube Material Industries, Ltd., Tohokutekkosha Corporation, UBE EXSYMO CO., LTD., UBE-MC Hydrogen Peroxide Limited, UBE SAND INDUSTRIES,LTD.

** ; Refining facility, research and test reactor facility, test and development stage power reactor facility, reprocessing facility, waste disposal facility, waste storage facility and usage facility (excluding the "user of material which does not correspond to Article 41 of " Ordinance") .)

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| Manufacturer | NGK Insulators, Ltd. |
| Date for announcement | May 23, 2018 |
| Outline of inappropriate act | Inspection of insulator etc. requires by the customer was not conducted. |
| Licensee who reported | Hokkaido Electric Power Co. Inc., Tohoku Electric Power Co. Inc., Tokyo Electric Power Company Holdings, Chubu Electric Power Co. Inc., Hokuriku Electric Power Company, Kansai Electric Power Co. Inc., Chugoku Electric Power Co., Shikoku Electric Power Co. Inc., Kyushu Electric Power Co. Inc., Japan Atomic Power Company, Electric Power Development Co.Ltd., Japan Atomic Energy Agency, Japan Nuclear Fuel Limited, Other Nuclear Fuel facilities etc.,* |
| Status of the Nuclear Facility & Evaluation result of licensee | <p>- Insulators of emergency power supply equipment, electric power cable, isolating switch, switchyard, and bushing, etc. 【 Tomari, Higashidori, Onagawa, Kashiwazaki Kariwa, Fukushima Daiichi, Fukushima Daini, Tokai Daini, Hamaoka, Shika, Tsuruga, Mihama, Ohi, Takahama, Shimane, Ikata, Genkai, Sendai, Ohma, Japan Nuclear Fuel Limited, and JAEA】 (inappropriate act) Strength inspection was executed without charging proper power voltage, and the quantity of sampling test was short. (However, all the products passed the internal inspection of NGK Insulators Ltd.) (Licensee's evaluation and measures) The insulation performance and mechanical strength required by the NRA Ordinance* were confirmed by internal test of NGK Insulators Ltd. or the pre service inspection at the installation, so it is judged that there is no impact on the safety of the nuclear facilities.</p> <p>* METI ordinance that provides technical standards concerning electric equipment Instruction for technical standards related Electric Facilities concerning Facilities for Nuclear Power Generation</p> |

*; Refining facility, research and test reactor facility, test and development stage power reactor facility, reprocessing facility, waste disposal facility, waste storage facility and usage facility (Excluding the user of material which does not correspond to Article 41 of " Ordinance").

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| Manufacturer | Hitachi Chemical Ltd. (lead-acid storage battery and electrolytic capacitor, etc.) |
| Date for announcement | June 29,2018 |
| Outline of inappropriate act | Misconduct of inspection required by the customer, falsification of inspection report etc., |
| Licensee who reported | Hokkaido Electric Power Co. Inc., Tohoku Electric Power Co. Inc., Tokyo Electric Power Company Holdings, Chubu Electric Power Co. Inc., Hokuriku Electric Power Company, Kansai Electric Power Co. Inc., Chugoku Electric Power Co., Shikoku Electric Power Co. Inc., Kyushu Electric Power Co.Inc., Japan Atomic Power Company, Electric Power Development Co.Ltd., Japan Atomic Energy Agency, Japan Nuclear Fuel Limited, Other Nuclear Fuel facilities etc.,* |
| Status of the Nuclear Facility & Evaluation result of licensee | <p>- Lead-acid battery used for Emergency DC batteries etc. 【Higashidori, Onagawa,Kashiwazaki-Kariwa, Fukushima Daiichi,Fukushima Daini, Tokai Daini, Hamaoka, Shika,Shimane,JNFL】 (inappropriate act) Battery capacity test was not executed by the due method which was required by the customer, and filling in different data which is different from actual measured value into the test result report. (Licensee's evaluation and measures) The product (Normal system DC batteries for Takahama Unit 4) was replaced to the product which witness inspection was executed, or it was judged that there is no impact on the safety of the nuclear power plant due to the confirmation of adequacy of manufacturing process, past test data confirmed witness investigation of the manufacturing factories.</p> <p>- Electrolytic capacitor used for Uninterruptible Power Supply (UPS) etc. 【Higashidori, Onagawa, Kashiwazaki Kariwa, and Fukushima Daiichi, Fukushima Daini, Tokai Daini,Hamaoka, Shika, Shimane, Ohma, JAEA and JNFL】 (inappropriate act) Measurement of insulation resistance and executed withstand voltage test etc., for electrolytic capacitors to be fabricated into some portion of UPS, those were required by Plant Contractor or by their internal rule were not executed. (Licensee's evaluation and measures) Plant contractor or vendors had measured insulation resistance and executed withstand voltage test etc., when the product was fabricated into the UPS, and confirmed there is no problem. So it is judged that there is no problem to use them continuously.</p> |

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| Manufacturer | Fujikura Ltd. and the subsidiary companies* |
| Date for announcement | August 31,2018 |
| Outline of inappropriate act | Lack of quantity for a part of test and inspection for cables etc., and Falsification of test inspection data etc. |
| Licensee who reported | Hokkaido Electric Power Co. Inc., Tohoku Electric Power Co. Inc., Tokyo Electric Power Company Holdings, Chubu Electric Power Co. Inc., Hokuriku Electric Power Company, Kansai Electric Power Co. Inc., Chugoku Electric Power Co., Shikoku Electric Power Co. Inc., Kyushu Electric Power Co. Inc., Japan Atomic Power Company, Electric Power Development Co.Ltd., Japan Atomic Energy Agency, Japan Nuclear Fuel Limited, Other Nuclear Fuel facilities etc.,** |
| Status of the Nuclear Facility & Evaluation result of licensee | <p>Quantity of a part of inspection for cables etc., were less than customers requirements and test and inspection data were falsified, and others.</p> <p>Electric power cable etc. for the equipment which is important for safety.</p> <p>【 Tomari, Higashidori, Onagawa, Kashiwazaki Kariwa, Fukushima Daiichi,Fukushima Daini, Tokai Daini, Hamaoka, Shika, Tsuruga, Mihama, Ohi, Takahama, Shimane, Ikata, Genkai, Sendai, Ohma, and JNFL】</p> <p>(inappropriate act) Described false values which is different from actual test result into the shipping inspection result document, and the number of inspections were less than those required by the customer.</p> <p>(Licensee's evaluation and measures) It is confirmed that there is no problem by an entry, a manufacturing process by [nado], a past confirmation of the test data, the factory construction of the cable, and the performance confirmation afterwards. it was judged that there is no problem due to the confirmation of adequacy of manufacturing process, past test data confirmed by witness investigation of the manufacturing factories, and results of performance test when they were</p> |

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| | <p>installed at the site and conducted afterwards .</p> <p>- Control copper tube 【 Higashidori, Onagawa, Kashiwazaki Kariwa, Fukushima Daiichi, Fukushima Daini, Hamaoka, Shika, and JNFL 】 (inappropriate act) Materials test for vinyl sheath was not executed. (Licensee's evaluation and measures) The visual inspection and the dimensional inspection were executed, and, it was confirmed that there is no pin-hole by the spark test in addition, so it is judged that there is no problem on the performance of control copper tubes.</p> |
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* Fujukura Ltd, announced that four business group of Fujukura Ltd, and eleven subsidiary companies such as Nishi Nippon Electric Wire and Cable Co. Ltd, related to the inappropriate act.
http://www.fujikura.co.jp/quality_news/general/___icsFiles/afieldfile/2019/04/25/newsrelease20190425.pdf

**; Refining facility, research and test reactor facility, test and development stage power reactor facility, reprocessing facility, waste disposal facility, waste storage facility and usage facility (Excluding the user of material which does not correspond to Article 41 of "Ordinance".)

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| Manufacturer | Tokyo Precision Instrument Co., Ltd. |
| Date for announcement | October 5,2018 |
| Outline of inappropriate act | Inspection required by the customer was not conducted, or the test data which failed to meet the customer's requirements were falsified. |
| Licensee who reported | Hokkaido Electric Power Co. Inc., Tohoku Electric Power Co. Inc., Tokyo Electric Power Company Holdings, Chubu Electric Power Co. Inc., Hokuriku Electric Power Company, Kansai Electric Power Co. Inc., Chugoku Electric Power Co., Shikoku Electric Power Co. Inc., Kyushu Electric Power Co.Inc., Japan Atomic Power Company, Electric Power Development Co.Ltd., Japan Atomic Energy Agency, Japan Nuclear Fuel Limited, Other Nuclear Fuel facilities etc.,* |
| Status of the Nuclear Facility & Evaluation result of licensee | -Hydraulic valve etc.,used for Reactor Cooling and Isolation System(RCIC) Supplied to 【Higashidori, Onagawa, Kashiwazaki Kariwa, Fukushima Daini, Tokai Daini, Hamaoka, Shika, Shimane, Oma, and Monju 】 (inappropriate act) A part of magnetic particle testing for assembly bolt for hydraulic valve, required by the plant contractor was not executed. (Licensee's evaluation and measures) It was judged that there is no problem to use the product continuously because the integrity of the product was confirmed by the visual inspection required by the plant contractor. In case of Monju (FBR), it was judged that there is |

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| | no problem because the product is not utilized under decommissioning. |
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| Manufacturer | KYB Ltd. and a subsidiary company* |
| Date for announcement | October 16,2018 |
| Outline of inappropriate act | Falsification of inspection data of oil damper for seismic isolation and vibration control to be used in the building |
| Licensee who reported | Hokkaido Electric Power Co. Inc., Tohoku Electric Power Co. Inc., Tokyo Electric Power Company Holdings, Chubu Electric Power Co. Inc., Hokuriku Electric Power Company, Kansai Electric Power Co. Inc., Chugoku Electric Power Co., Shikoku Electric Power Co. Inc., Kyushu Electric Power Co.Inc., Japan Atomic Power Company, Electric Power Development Co.Ltd., Japan Atomic Energy Agency, Japan Nuclear Fuel Limited, Other Nuclear Fuel facilities etc.,** |
| Status of the Nuclear Facility & Evaluation result of licensee | - Oil damper for seismic isolation 【 Hamaoka and Tsuruga 】 (inappropriate act) Falsification of inspection data of oil damper for seismic isolation and vibration control to be used in the building (Licensee's evaluation and measures) Hamaoka: It was reported that the product which the inappropriate act might be conducted (and not proven yet) |

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| | <p>was supplied and used actually in the Gas turbine building which contains facilities for Severe Accident Measures***, so it is under the confirmation of the integrity of the building.</p> <p>*** The plant is under review for the compliance with the new safety requirements.</p> <p>Tsuruga: It was reported that the product which the inappropriate act was conducted is used actually in the Emergency Response Center Building**** so it is under the confirmation of the integrity of the building.</p> <p>**** The building is voluntary built facilities by the licensee.</p> |
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* ; KYB Ltd. and KAYABA SYSTEM MACHINERY CO., LTD

**; Refining facility, research and test reactor facility, test and development stage power reactor facility, reprocessing facility, waste disposal facility, waste storage facility and usage facility (excluding the "user of material which does not correspond to Article 41 of " Ordinance") .)

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| Manufacturer | Subsidiary company of Kawakin Holdings Co.,Ltd* |
| Date for announcement | October 23,2018 |
| Outline of inappropriate act | Falsification of performance test record data of oil damper for seismic isolation and vibration control to be used in the building |
| Licensee who reported | Hokkaido Electric Power Co. Inc., Tohoku Electric Power Co. Inc., Tokyo Electric Power Company Holdings, Chubu Electric Power Co. Inc., Hokuriku Electric Power Company, Kansai Electric Power Co. Inc., Chugoku Electric Power Co., Shikoku Electric Power Co. Inc., Kyushu Electric Power Co.Inc., Japan Atomic Power Company, Electric Power Development Co.Ltd., Japan Atomic Energy Agency, Japan Nuclear Fuel Limited, Other Nuclear Fuel facilities etc.,* |
| Status of the Nuclear Facility & | It was not confirmed there is no product with such Inappropriate act. |

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| Evaluation result of licensee | |
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*; Koyo Seiki Co.,Ltd,

**; Refining facility, research and test reactor facility, test and development stage power reactor facility, reprocessing facility, waste disposal facility, waste storage facility and usage facility (excluding the "user of material which does not correspond to Article 41 of " Ordinance") .)

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| Manufacturer | Subsidiary company of Mitsubishi Electric Corporation* |
| Date for announcement | November26,2018 |
| Outline of inappropriate act | Inspection to confirm the product meets the customer's required specification for rubber product (gasket etc.) was not executed etc. |
| Licensee who reported | Hokkaido Electric Power Co. Inc., Tohoku Electric Power Co. Inc., Tokyo Electric Power Company Holdings, Chubu Electric Power Co. Inc., Hokuriku Electric Power Company, Kansai Electric Power Co. Inc., Chugoku Electric Power Co., Shikoku Electric Power Co. Inc., Kyushu Electric Power Co.Inc., |

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| | Japan Atomic Power Company, Electric Power Development Co.Ltd., Japan Atomic Energy Agency, Japan Nuclear Fuel Limited, Other Nuclear Fuel facilities etc.,* |
| Status of the Nuclear Facility & Evaluation result of licensee | <p>- Air circuit breaker for safety system, bushing of the Main Generator, and the transformer, etc. - Safety faction air circuit breaker, dynamo bushing, and transformer, etc.</p> <p>【 Tomari, Higashidori, Onagawa, Tokai Daini, Hamaoka, Shika, Tsuruga, Mihama, Ohi, Takahama, Shimane, Ikata, Genkai, Sendai, Monju, and JNFL 】 (inappropriate act)</p> <p>Shipment of rubber product that doesn't meet the requirements of contract specifications with the customer. (Licensee's evaluation and measures)</p> <p>It was confirmed that there is no required specification for an individual rubber product, and the equipment including the concerned rubber product was confirmed that it complied to the customer's specification, in addition, there was no problem with the result of inspection when it was installed, so it was judged that there is no problem in the equipment includes concerned rubber product, and there is no impact for the safety of the nuclear power reactors.</p> <p>The JAEA received the report from Mitsubishi Electric Corp. that there is no problem on the basic performance of Monju.</p> |

*;株式会社トーカン(only in Japanese)

**; Refining facility, research and test reactor facility, test and development stage power reactor facility, reprocessing facility, waste disposal facility, waste storage facility and usage facility (excluding the "user of material which does not correspond to Article 41 of " Ordinance") .)