

**Considerations for Exposure Dose Control of Workers Engaged in Decommissioning Works, etc. at the TEPCO Fukushima Daiichi Nuclear Power Plant**

1 Access control of workers engaged in radiation works and separate construction works

The plant director should know the information of all workers who enter the power plant without omission and regularly implement matters described in subsections (1) to (6) below.

(1) Acquisition of workers' fundamental information

The plant director should, in cooperation with primary contractors, request all employers who conduct radiation works and separate construction works at the power plant site to submit the fundamental information described below and keep it.

Worker's identification number, Central registration number, Primary contractor's work place, Affiliation office name, Worker's name, Birth date, Present address, Telephone number, Date of the latest medical examination (special -- general), and Date when the new worker's education (special education) was implemented

(2) Implementation of new worker's education and its record, etc.

The plant director should, in cooperation with primary contractors, implement the new worker's education that contains the details of the special education specified in Article 52-7 of the Ionizing Radiation Ordinance to all workers engaged in radiation works and separate construction works for the first time at the power plant, and add the implementation record to the workers' fundamental information. In addition, a summary of the workers' accident compensation insurance should be well-known to them.

(3) Issue of worker's identification card, etc. and access control

The plant director should issue the worker's identification card, etc. with the personal ID number and his/her photograph to those who finished the new worker's education, and record the gate entry time and leaving time by checking the ID number.

(4) Ensured recording of exposure dose information

- a. The plant director should record the PAD data of the workers engaged in radiation works and separate construction works every time when the PAD is returned by checking the ID number.
- b. The plant director should notify workers of the record described in a above in writing when

the PAD is returned.

- c. The plant director should manage information to provide notification to workers regarding the measurement time limit so that internal exposure dose of workers who are engaged in designated high dose work can be measured once within a month.

(5) Integration and notice of exposure dose information

- a. Integration of worker's fundamental information and exposure dose information

The plant director should integrate the worker's fundamental information and exposure dose information by checking the personal ID number to calculate an accumulated dose.

- b. Notice to employers and workers

The plant director should notify the integrated exposure doses to all workers engaged in the radiation works and separate construction works on the next day (when the next day is a holiday, notice should be on the next day following the holiday) for an external dose, once a month for the effective dose which is the total of the external exposure dose and internal exposure dose and its accumulation. The notification should be in writing or as electronic data provided to TEPCO's employees and primary contractors.

(6) Off-limits measurement during designated high dose work, etc.

The plant director should manage the exposure dose of the workers engaged in the works (work to maintain cooling functions of the reactor facility or spent fuel storage pool, or work to maintain radioactive material release restriction functions in the reactor facility and steam turbine and its auxiliary facility or areas around them where the potential ambient dose rate may exceed 0.1 mSv/h (hereinafter referred to as "designated high dose work")) to which the emergency dose limit (100 mSv) prescribed in Article 7 of the Ionizing Radiation Ordinance is applied through Item 3, Labour Standards Bureau Notification No. 1216-1 dated 16 December 2011 separately from the exposure dose of workers engaged in other works. In addition, after positively identifying that the worker is a designated high dose worker from the identification card photo, such measures should be taken as having the operation leader directly supervise the designated high dose work so that unrelated workers do not enter the area.

2. Management of PAD

The plant director and primary contractors should conduct appropriately the matters described below.

(1) Loan of PAD

The plant director should, in order to know certainly that the person himself/herself received the

PAD, put the personal loan into practice.

(2) Alarm value setting

- a. Since an alarm is set not to exceed the maximum dose expected per day, the alarm should be set at the value as near the maximum dose per day expected as much as possible.
- b. The alarm setting value should be made closer to the record of the dose through regular comparison with the recorded value of the dose after work.

(3) The plant director and primary contractors should, after checking the measured value with the PAD, conduct the matters described below immediately.

- a. Check the external effective dose from gamma-rays. If the dose is abnormal such as that the dose is remarkably low as compared with the alarm setting value (e.g. 5-10% or less of the alarm setting values), check the specific work, etc.
- b. When the excessive alarm setting value is set as compared with the specific works, correct to an appropriate value.
- c. For workers with considerably low exposure dose compared with that other workers in the same working group who have adopted the same alarm value (e.g. 5-10% or less compared with workers with the highest exposure dose), check specific works of the workers. When an excessive alarm setting value is set as compared with the specific works, correct it to an appropriate value.

### 3 Management of integrating dosimeters

The plant director and primary contractors should conduct appropriately the matters described below.

(1) Management method

It is necessary to wear an integrated personal dosimeter (hereinafter referred to as "integrating dosimeter") only during the time when workers are engaged in the works for appropriate occupation exposure dose measurement. The integrating dosimeters should be worn at the start of the said works and kept in an appropriate place when the said works are completed, under the management of the plant director or primary contractors.

(2) Control badge

In order to correctly measure occupational exposure dose with the integrating dosimeter, appropriate operation of the control badge is important where the exposure dose during the time not engaged in the works is deducted. For that reason, the control badge should be kept at the place at an equivalent ambient dose rate to that the place where integrating dosimeters in use are kept.

It should be noted that the integrating dosimeters not in use should be kept at the place at the equivalent ambient dose rate to that of the control badge.

#### 4. Comparison and evaluation of measurements with the PAD and the integrating dosimeter

The plant director and primary contractors should conduct appropriately the matters described below.

(1) It is believed that an integrating dosimeter is more reliable than PAD because the former can be worn continuously during the works and the error due to the directional characteristics etc. is smaller than for the PAD. However, when there is deviation between them which exceeds the fixed standard set by each employer in the measurement of effective dose by gamma-rays, they should investigate the cause by such means as checking data, etc., after considering matters the described below.

(i) In the Japanese Industrial Standards (JIS), a directional error of  $\pm 30\%$  is acceptable for the PAD and an error of up to approximately 35% is accepted in general for the measurement using two independent instruments in the safety standard of the International Atomic Energy Agency (IAEA). However, more prudent handling should be required for workers who are working when they have an exposure dose near the statutory exposure dose limit, such as 40 mSv per year.

(ii) For this reason, it is desirable to set the criterion for investigating deviation to the value which does not exceed  $\pm 20\%$  which is twice the standard deviation (0.094) of this data analysis.

(2) When the value with the PAD is higher than that with the integrating dosimeter even after the check described in subsection (1), the value of PAD should be adopted as the value to be recorded.

#### 5 Measurement of internal dose

The plant director and primary contractors should measure the internal exposure dose with a whole body counter (hereinafter referred to as "WBC") immediately when ingestion of radionuclides is suspected. When the measurement of the internal exposure dose with the WBC becomes difficult according to an unavoidable emergency situation, the internal exposure dose should be evaluated according to the "Evaluation method of the internal dose in TEPCO Fukushima Daiichi Nuclear Power Plant" (hereinafter referred to as "unified evaluation method") issued on 2 August 2011.

#### 6 Appropriate management / storage of exposure dose record

The plant director and primary contractors should establish an organization required to conduct the matters described below.

- (1) Both external exposure dose and internal exposure dose values should be kept in their original form as much as possible (including data in electronic media obtained by scanning paper media) with respect to the type of measuring instrument, measurement conditions and measurement results in order to prepare for future verification.
- (2) When the internal dose is evaluated, including identification of nuclides, since the internal dose may exceed 1 mSv as the result of the internal exposure dose measurement, detailed measurement data should be kept such as the spectra, detection limit, original data that support ingestion date (date when the work started) including documents when measured with the WBC, the shift roster, attendance record, copy of the radiation passbook as well as the internal dose calculation method.
- (3) The primary contractors should manage and keep similarly the measurement results for workers of relevant subcontractors.

#### 7. Evaluation of exposure doses by beta-rays

The plant director and primary contractors should conduct the matters described below.

- (1) In the case where the exposure dose by beta-rays may be larger than that by gamma-rays by a factor of 10 or more, the measuring instrument to be worn at the part as specified in Article 8, paragraph 3, item 1 of the Ionizing Radiation Ordinance should be those that allow measurement of the 1-cm dose equivalent and the 70- $\mu$ m dose equivalent.
- (2) In addition to the above item (1), in the case where the situation corresponds to that specified in item 3 of the same paragraph and the same article such as the case dealing with processed waste water, the measurement should be conducted while wearing an instrument that allows measurement of 70- $\mu$ m dose equivalent at the part which may be exposed most significantly.
- (3) Addition of the dose by -beta-rays to the effective dose

In the case where the value of the daily 70- $\mu$ m dose equivalent measured according to (1) is larger than the value of the daily 1-cm dose equivalent by a factor of 10 or more, and where the value calculated according to a or b below is higher than the lower measurement limit of the integrating dosimeter (0.1 mSv), the monthly effective dose should be calculated by adding the value calculated according to the said a or b to the monthly 70- $\mu$ m accumulated dose equivalent depending on each case.

- a. The value of the monthly 70- $\mu$ m accumulated dose equivalent multiplied by the tissue

loading coefficient of the skin (0.01) measured according to subsection (1) when the measurement described in subsection (2) is not conducted.

- b. The value of weight averaged (by skin areas) monthly 70- $\mu$ m accumulated dose equivalent measured according to subsection (1) and according to the description in subsection (2) multiplied by the tissue loading coefficient of the skin (0.01) when the measurement described in subsection (2) is conducted.

(4) Evaluation of the case where uneven exposure should occur

When uneven exposure should occurred by wearing shielding-protective clothes, addition to the effective dose obtained according to subsection (3) should be appropriately provided according to the ratio of the shielded part to the whole body area.

8. Evaluation of uneven exposure by gamma-rays

The plant director and the primary contractors should conduct the matters described below.

- (1) For evaluation of exposure by gamma-rays when uneven exposure should occur by wearing the shielding-protective clothes, effective dose should be calculated according to the guideline, "Technical guideline concerning evaluation method of external exposure and internal exposure" (General Administrative Group, Radiation Council, April 1999 ).
  
- (2) When the area of the part covered with shielding-protective clothes is small compared to the area defined in the guideline, for a more appropriate evaluation, the formula should be set according to the part covered with the shielding based on the table of load factors by the part of the body described in Annex 4 of the guideline, and then an effective dose is calculated.

## **Heatstroke prevention measures for workers engaged in the decommissioning works at TEPCO Fukushima Daiichi Nuclear Power Plant**

Heatstroke prevention measures for workers engaged in the decommissioning works at TEPCO Fukushima Daiichi Nuclear Power Plant should be taken according to the Labour Standards Bureau Notification No. 0619001, 19 June 2009, "Prevention of heatstroke in the work place" especially emphasizing the following points described below.

### 1. Work environment management

The plant director and principal contractors should conduct the matters described below.

#### (1) Utilization of the value of the WBGT (Wet-Bulb Globe Temperature)

The WBGT measuring instrument should be installed at every workplace to identify and evaluate the risk of heatstroke in the place concerned and in order to change working hours, frequency and time of work breaks, work load, etc. The evaluation results of the heatstroke risk should be recorded.

#### (2) Setting rest stations

Rest stations required for workers' break should be set appropriately considering the number of workers who are engaged in works, the distance from workplaces, etc. The rest stations should be equipped with air conditioners and a toilet and provide workers with water and a way to replenish body electrolytes. Also they should be provided with equipment to correspond to emergencies such as coolants for cooling the body, heart rate meters, and thermometers. Depending on the works, simplified and portable rest stations should be set near the workplace such as by using vehicles etc.

Especially in supplying water and electrolytes, the concentration of the radionuclides in the air should be measured in the facility in order to prevent internal exposure dose and as well measures are required for reducing the concentration of the radionuclides as much as possible, such as removal of the radionuclides in the air with filters, and utilization of sticky mats to trap contaminated dust.

### 2. Work control

The plant director and principal contractors should conduct the matters described below.

#### (1) Shortening of working hours, etc.

Measures should be taken according to the risk of heatstroke in the workplace place, such as

shortening of working hours and change of frequency of work breaks, rest hours or work load, etc. In addition, considerations should be given in setting the working hours, such as setting a maximum number of consecutive working hours and focusing on carrying out works in the relatively cool times of early morning and the evening to avoid the hottest time in the afternoon.

Considerations should be given to the severity of working conditions in setting the working hours, such as not carrying out works that have a high risk of heatstroke in principle under the blazing sun in the time period from 14:00 to 17:00 in July and August when death due to heatstroke occurs most frequently. In the case where workers must engage in such works unavoidably such as in those requiring continuous monitoring, all possible measures to prevent heatstroke should be taken, such as increasing the frequency of breaks and lengthening the break times.

(2) Acclimatization to heat

For the workers newly engaged in the works, a period for acclimatization should be set and considerations should be given to the acclimatization, such as change of working hours, the frequency of breaks, and work load, etc. The period for acclimatization should be set for seven days or more in principle during which the time exposed to the heat should gradually be extended.

(3) Ingestion of water and electrolytes

Those who control works should remind workers to drink water and replenish body electrolytes, and make them consume water and electrolytes before and after the work irrespective of the existence of workers' subjective symptoms. In addition, they should check and record that each worker consumed water and electrolytes regularly using a check list, etc.

(4) Wearing of appropriate protective clothes

Workers should wear clothes with good permeability and breathability, and, if required, work clothes with a function to cool the body (cooling vest, etc.). In addition, under the direct rays of the sun, they should wear helmets with good breathability and/or attached with a cloth at the rear to block radiant heat.

(5) Checks and instructions by those who control works

During works, in order to check whether there are any abnormalities in workers' health, supervisors or work leaders should patrol frequently and also considerations should be given to mutual checks of health conditions among workers themselves, such as calling to each



other.

In addition, those who control works should check the measured WBGT value and instruct workers in its meaning, check the consumption of water and electrolytes and instruct workers in the purpose of their consumption, and check health conditions of workers and thoroughly instruct workers in the measures regularly.

### 3. Healthcare

The plant director and principal contractors should conduct the matters described below.

#### (1) Check of workers' health conditions, etc.

The operation leaders check each worker's health conditions by using a check list, etc. and before starting operations, records the information for such items as sleep habits, meal habits, alcohol consumed the previous day, fever and diarrhea conditions, as well as takes appropriate measures after checking whether there is any change in break hours, and the health conditions after finishing the assigned works. They also should give instructions about daily healthcare to workers, and in the cases when significant symptoms are seen in some workers during the morning meetings, changes the workplace or the assigned works for said workers. Furthermore, since a lack of communication may occur due to wearing the full-face mask, they should also make workers well-aware of the need to report their health condition when it is poor.

#### (2) Actions based on the results of the medical examination etc.

- a. The regular medical examination etc. and follow-up actions based on the examination should be ensured. In addition, careful attention should be given to the existence of diseases with a possibility of affecting the onset of heatstroke, such as diabetes, hypertension, cardiac disease, and renal disease, and take appropriate measures, such as restricting working hours.
- b. When the signs for excessive exposure to heat that require work to be stopped are identified through the patrol by supervisors/superintendents, reported by workers themselves, or found from monitoring results of heart beat rate (bpm) at the time of a break, etc., the workers should be provided healthcare, such as restricting working hours. It should be noted that the signs for the exposure to heat that require work be stopped should include the heart beat rate continuing for several minutes at the value of 180 minus the worker's age or higher for workers with normal cardiac function, the heart beat rate for 1 minute after a strenuous task reaching a peak of 120 or higher, and the appearance of symptoms such as a rapid and intense feeling of fatigue, nausea, giddiness, or loss of consciousness.

#### 4. Occupational safety and health education

The plant director and principal contractors should conduct the matters described below.

The plant director and principal contractors should provide occupational safety and health education repeatedly, focused on the points as described below to those who control works and workers. In addition, they should daily remind them to practice the educational details, and make them well-informed of required matters such as actions in an emergency, etc. by posting a notice at the rest facility.

- Supply of water and electrolytes regardless of worker's subjective symptoms
- Daily healthcare
- Identification of signs for which exposure to heat requires work to be stopped
- First aid and communication methods in an emergency

#### 5. First aid

The plant director should, in preparation for the occurrence of heatstroke among workers engaged in emergency works, operate appropriate medical offices in which medical staffs such as medical doctors are present regularly. He/she also prepares procedures for communicating with medical doctors, transportation to medical offices, etc., first aid such as cooling methods of the body, transportation to hospitals, etc. and for informing related persons such as medical doctors and personnel who control the works so that first aid will be provided immediately. These procedures should be posted in the rest stations to ensure workers at the power plant are well-aware of them.

The primary contractors should encourage operation leaders and workers to utilize medical offices set by TEPCO as well as make them well-aware of the need to communicate immediately when workers feel abnormal.

#### 6. Instructions and support to cooperated company

The plant director should provide instructions to implement actions described in sections 1 to 5 above and support in conducting occupational safety and health education and utilization of the rest stations from the viewpoint of preventing heatstroke, to primary contractors and relevant subcontractors that TEPCO has outsourced the works to.

### **Information Required in the Report Summarizing the Risk Assessment Results**

The risk assessment which TEPCO and primary contractors conduct when they prepare a construction plan described in Section 6 item 2 subsection (1) of the main document should be conducted according to the description shown in the Guideline Concerning Identification of Dangers and Hazards, etc. (Guideline Notice No. 1, 10 March 2006) for radiation works and separate construction works including those conducted by relevant subcontractors.

The risk assessment should be conducted for each operation process, and the summary of the assessment should include information concerning the matters described below.

1. Outline of construction

- (1) Outline of the specific construction
- (2) Operation process
- (3) Specific work in each operation process

2. Identification of dangers and hazards in each operation process

- (1) Work methods (including type, number, layout of machines and equipment to be used in conducting the work)
- (2) Dangers or hazards, potential accidents
- (3) Planned accident prevention measures (including reduction measures of dangers or health hazards such as radiation exposure reduction measures (wearing a protective mask, restriction of work hours, etc.))

3. Estimation of risk in each operation process and setup of the priority of the risk reduction measures

- (1) Identified dangers or hazards
- (2) Estimated risk
- (3) Priority of the setup risk reduction measures

4. Details of the risk reduction measures in each operation process

- (1) Details of the risk reduction measures (including radiation exposure reduction measures, and type, number, layout of machines and equipment to be used in conducting the works)
- (2) Estimation of risk after taking measures, and residual risks (date when measures are taken, matters to be considered in the following time)

## 5. Checker

- (1) A person responsible for the risk assessment and risk assessment implementer, implemented date
- (2) A person responsible for construction (only when the works which TEPCO does not conduct by itself are outsourced)

**Points to be Noted in Submitting the Record of the Results of Medical Examinations for Designated Emergency Workers**

1 Submission of a copy of a record of the results of medical examinations pursuant to Article 59-2, paragraph 1 of the Ionizing Radiation Ordinance.

- (1) Form 5 of the Ordinance on Industrial Safety and Health Act (Ministry Of Labour Ordinance No. 32 of 1972) should include the results of the temporary medical examination by the instructions based on Article 66, paragraph 4 of the Industrial Safety and Health Act (Act No. 57 of 1972).

Form 1 and 2 of the Ionizing Radiation Ordinance and Form 2 pursuant to the Ordinance on the Prevention of Ionizing Radiation Hazards at Works to Decontaminate Soil and Wastes Contaminated by Radioactive Materials Resulting from the Great East Japan Earthquake and Related Works, etc. (Ministry of Health, Labour and Welfare Ordinance No. 152 of 2011, (hereinafter referred to as the “Ionizing Radiation Ordinance for Decontamination”) should include results of the medical examinations conducted when the worker are transferred to other works. It should be noted that the emergency ionizing radiation medical examination card (Form 1-3) for exceptional emergency workers for which submission is prescribed in Article 59-2 of the revised Ionizing Radiation Ordinance to be enforced on 1 April 2016 should include results of medical examinations conducted at the time when the workers are transferred to other works and when they terminate their employment.

- (2) For data concerning workers engaged in works at the power plant site, the plant director or primary contractors should, together with subcontractors engaged in works which they conduct by themselves, submit a report to the Industrial Health Division, Industrial Safety and Health Department, Labour Standards Bureau, Ministry of Health, Labour and Welfare. However, this does not apply to the case where the number of both relevant subcontractors and workers concerned are small and it is recognized that the reporting by the relevant subcontractors will be ensured.

Since the reporting is obliged for all employers who have emergency workers engaged in radiation works (including the new employer of a worker employment when the worker concerned changes his/her employment), in nuclear facilities, etc. other than the power plant, primary contractors should submit the report to the Industrial Health Division, Industrial Safety and Health Department, Labour Standards Bureau, Ministry of Health, Labour and

Welfare, together with those concerning workers of subcontractors in principle, from the viewpoint of conducting appropriately the long-term healthcare of emergency workers.

- (3) The report should be conducted, in principle, by submitting copies of medical examination cards (electromagnetic data in PDF form obtained by scanning the medical examination cards concerned in the case where electromagnetic recording media are used). In the case where the results of medical examinations are managed electromagnetically in each office and reporting by the above method is difficult, the reporting should be conducted in an electromagnetic record filed in the CSV data format shown in Annex 1 for general medical examination results and that shown in Annex 2 for medical examination results conducted pursuant to the Ionizing Radiation Ordinance, or Ionizing Radiation Ordinance for Decontamination.

In the case where two or more persons' results or two or more medical examination times are shown including past medical examination results, or two or more workers' medical examination results are shown on one medical card, the report should be submitted after clarifying the examination results of concern by placing checks on the examination results to be reported and others should be deleted with diagonal lines, or attaching separately a list which shows the workers and date of the medical examination of concern.

- (4) Form 1 should be attached to the report after fulfilling the requirement in order to correctly distinguish the reporting of concern, number of cases, etc.

## 2. Reporting of controlling status of exposure dose, etc. pursuant to Article 59-2, paragraph 2 of the Ionizing Radiation Ordinance

- (1) Reporting on controlling status of exposure dose, etc. at the power plant site

The plant director should compile and submit a report concerning all designated emergency workers (including workers of primary contractors and relevant subcontractors) who engage in designated emergency works or radiation works at the power plant site to the Industrial Health Division, Industrial Safety and Health Department, Labour Standards Bureau, Ministry of Health, Labour and Welfare.

In this case, primary contractors and relevant subcontractors need not report again; however, changes in the description in the report such as changes in address or affiliated work place of workers should be compiled and reported by the primary contractors to the Industrial Health Division, Industrial Safety and Health Department, Labour Standards Bureau, Ministry of Health, Labour and Welfare. This may be done through TEPCO.

It should be noted that this should be applied to the reporting on controlling status of exposure

dose, etc. concerning exceptional emergency workers as obliged pursuant to Article 59-2 of the revised Ionizing Radiation Ordinance to be enforced on 1 April 2016.

- (2) Reporting on controlling status of exposure dose, etc. in works at nuclear facilities other than the power plant.

Since the reporting is obliged for all employers who have designated emergency workers engaged in radiation works (including the new employer of a worker employment when the worker changes his/her employment) at nuclear facilities, etc. other than the power plant, primary contractors should submit a report to the Industrial Health Division, Industrial Safety and Health Department, Labour Standards Bureau, Ministry of Health, Labour and Welfare, together with those concerning workers of subcontractors in principle, from the viewpoint of conducting appropriately the long-term healthcare of emergency workers.

It should be noted that this should be apply to the reporting on controlling status of exposure dose, etc. concerning exceptional emergency workers as obliged pursuant to Article 59-2 of the revised Ionizing Radiation Ordinance to be enforced on 1 April 2016.

- (3) The reporting should be conducted in electromagnetic data filed in the CSV data format shown in Annex 3.

Form 1 should be attached to the report after fulfilling the requirement in order to correctly distinguish the reporting of concern, number of cases, etc.

### 3 Reporting of results of the cancer screening conducted according to the ministerial guidance

- (1) When the examination such as cancer screening specified in 2 of Section 2 of the ministerial guideline is conducted for emergency workers, its results including the doctor's diagnosis and comments should be reported to the Industrial Health Division, Industrial Safety and Health Department, Labour Standards Bureau, Ministry of Health, Labour and Welfare, after obtaining the workers' consent. When the photograph of a crystalline lens is taken in the examination of the eyes with respect to cataract, the photograph should be submitted as electromagnetic data, etc.

- (2) The reporting should be conducted, in principle, by submitting copies of medical examination cards (electromagnetic data in PDF form obtained by scanning the medical examination cards concerned in the case where electromagnetic recording media are used). In the case where the results of a medical examination are managed electromagnetically in each office and the reporting by the above way is difficult, the reporting should be conducted in electromagnetic

record filed in the CSV data format shown in Annex 4.

It should be noted that, in the case where the workers' consents could not be obtained, a report should be submitted describing the type of medical examination, personal ID number, central registration number, furigana of the worker's name, name of the worker, birth date, examination date with the comment "Submission not approved" in the examination item column. Others should be dealt with in the same manner as the contingency 1 (3) and 1 (4).

- (3) When one chest X-ray inspection is conducted both for a general medical examination and a lung cancer screening based on the ministerial guideline, the results should be reported not only based on subsection 1, but also as results of cancer screening separately. In this case, the type of medical examination should be described in the report by submitting a copy of the medical examination card (or electromagnetic data in the PDF form obtained by scanning the medical examination cards concerned).

#### 4. Others

When submitting electromagnetic data, media such as DVDs should be used in principle as the submitting media. It should be noted that, when submitted using USB memory devices etc., the USB memory devices concerned will not returned.