

Annotations to the Nuclear Disaster Guidelines for
Preparedness, Response and Recovery
(Guidelines Version: March 31, 2016)

(English Translation)

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Red Cross Nuclear Disaster Resource Center



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Positioning of and background to the annotations

This document is annotations prepared by the Red Cross Nuclear Disaster Resource Center (NDRC) to explain each section of the “Nuclear Disaster Guidelines for Preparedness, Response and Recovery” (Guidelines) enacted on March 30, 2015. Since the Guidelines were revised as of March 31, 2016, the annotations were also revised.

After considerations within the Japanese Red Cross Society (JRCS), the Guidelines were created through the discussions made at the meetings of a committee set up for the Guidelines to which members from within and outside of the JRCS were assigned. The purpose of the Guidelines is to clarify the roles regarding nuclear disasters which the JRCS should play and to make arrangements for ensuring the health and safety of JRCS responders who engage in the relief activities during a nuclear disaster. The Guidelines also describe JRCS’s course of action with regard to nuclear disaster preparedness, response and recovery.

In the Guidelines, some events and concepts behind it are not explained in an attempt to describe the Guidelines concisely. Therefore, the NDRC prepared the annotations for the Guidelines audiences to better understand each section helped by the explanations of the descriptions that could not be indicated in detail in the Guidelines.

Assumed audiences of the annotations

Main assumed audiences of the annotations are JRCS staff, the users of the Guidelines. The annotations were carefully prepared so that JRCS staff members can understand the Guidelines if have no knowledge about nuclear disasters or no experience of response to the TEPCO’s Fukushima Daiichi Nuclear Power Plant accident (Fukushima Daiichi accident).

Considerations in reading the annotations

- The annotations were prepared aimed at facilitating the audiences’ understanding of the Guidelines. Therefore, there are limitations for the Guidelines to include the complicated and wide-range background to the Fukushima Daiichi accident and the JRCS activities in response to the accident.
- The NDRC tried to include accurate facts in the annotations based on objective surveys as much as possible. However, since not every description about the affected area at that time was supportive, there may be insufficient or inappropriate explanations in some of the descriptions.
- The NDRC tried to describe the annotations from a neutral stance. However, views and perceptions of the events vary according to individual perspectives and positions.

Therefore, please understand that there may be different views or opinions to the descriptions of the Guidelines.

Support materials for the Guidelines

The NDRC prepared support materials to explain the words and events described in the Guidelines. They follow the annotations. The slide numbers are attached to the underlined relevant words in blue in the Guidelines body. (Refer to the examples below.) The slide numbers are placed at the top of each support material slide.

e. g. Until [the accident at Tokyo Electric Power Company's Fukushima Daiichi Nuclear Power¹⁻²](#) occurred following [the Great East Japan Earthquake and Tsunami¹⁻¹](#)

(Prepared in July 2016.)

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I. Background

Until [the accident at Tokyo Electric Power Company's Fukushima Daiichi Nuclear Power Plant¹⁻²](#) (hereinafter referred to as "Fukushima Daiichi accident") occurred following the [Great East Japan Earthquake and Tsunami¹⁻¹](#), the safety of nuclear power plants was overestimated in Japan. The possibility of a large-scale nuclear disaster had been rarely discussed or debated openly. In addition, no information regarding the risks had been shared except among a handful of stakeholders. As a result, response to a complex disaster involving a nuclear power plant and response to the [release of radioactive materials from a nuclear power plant site¹⁻³](#) had been beyond the scope of expectations. It is fair to say that there was a lack of comprehensive preparation for a nuclear disaster across sectors in Japan.

Due to the lack of preparedness, the [off-site center¹⁻⁴](#) for the Fukushima Daiichi Nuclear Power Plant and the [radiation emergency medical care arrangements¹⁻⁵](#) did not work sufficiently. Since [extensive evacuations following a large-scale complex disaster¹⁻⁶](#) had not been assumed, evacuations occurred in an unsystematic way and this led to confusion among people affected by the disaster. In particular, when people requiring special consideration¹ were evacuated, they were frequently forced to be transported many hours, because it was difficult to find or arrange facilities to accept them. The failure to arrange medical and nursing care in a timely manner worsened the physical conditions of those people or even led to death in some cases.

Furthermore, conflicting information soon after the onset of the Fukushima Daiichi accident because of the lack of preparedness led to distrust in the national and local governments among the public and increased fear of damage caused by radiation. Preparedness for nuclear disasters by the Japanese Red Cross Society (hereinafter referred to as "JRCS") was also insufficient. When the Fukushima Daiichi accident occurred, the JRCS relief teams were providing relief activities in Fukushima Prefecture. However, the JRCS was not able to secure the safety of its relief team members who lacked any protective equipment against a nuclear disaster. Therefore, [the JRCS relief teams, except for the JRCS Fukushima Chapter relief teams, were forced to temporarily leave Fukushima Prefecture¹⁻⁷](#). Even after resuming the relief activities, [the JRCS had no option but to provide activities by trial and error during the nuclear disaster¹⁻⁸](#), which were the

¹ Elderly persons, persons with disabilities, infants and preschool children, and other persons who require special consideration (Article 8 (2) (xv), Basic Act on Disaster Control Measures)

JRCS's first relief activities ever during a nuclear disaster. The circumstances prevented them from providing sufficient activities for the affected people. [The response provided to people evacuated from Fukushima Prefecture to other prefectures was conducted by the JRCS chapters of those other prefectures](#)¹⁻⁹. However, the JRCS response was not enough as a whole.

On the other hand, the international community regards nuclear disasters as a challenge which should be tackled internationally, because damage from radiation release after a nuclear accident will most likely spread beyond the accident country and cause a wide range of effects. With these concerns as a background, [the International Federation of Red Cross and Red Crescent Societies \(hereinafter referred to as "IFRC"\) adopted a resolution for enhancing preparedness for nuclear and radiological emergencies at the General Assembly in November 2011](#)¹⁻¹⁰.

Japan is the only country in the world with the difficult experience of radiation exposures in different forms: the atomic bombing in Hiroshima and Nagasaki; and the Fukushima Daiichi accident. In addition to the IFRC resolution, the JRCS believes that it has a responsibility to address this challenge and share the experience with the international community. For these reasons, the JRCS created the Nuclear Disaster Guidelines for Preparedness, Response and Recovery (hereinafter referred to as "Guidelines") in collaboration with the IFRC.

Annotation:

This chapter describes the background to the Guidelines in terms of three viewpoints: 1) the social circumstances surrounding nuclear power plants in Japan at the time of the Fukushima Daiichi accident, which resulted in the failure to prevent the damage from spreading; 2) the JRCS response to the accident, in which they failed to provide sufficient relief activities; and 3) international contribution, which is the mission of the JRCS as a player of the Red Cross and Red Crescent Movement.

II. Purpose and scope

1. Purpose of the Guidelines

Based on JRCS's experience in responding to the Fukushima Daiichi accident following the Great East Japan Earthquake and Tsunami, the Guidelines sets the JRCS's course of action to prepare for possible future nuclear disasters in order to protect the lives, physical and mental health and safety of people who may be affected by a nuclear disaster. The purpose of the Guidelines is to clarify the roles that the JRCS should play and to establish the internal arrangements for securing the health and safety of JRCS responders.

Annotation:

This section defines the purpose of the Guidelines. Since sufficient arrangements for ensuring the safety of JRCS responders were not in place at the time of the Fukushima Daiichi accident, the JRCS had problems with its activities in regards to protecting the affected people. For this reason, the JRCS set the purpose of the Guidelines for establishing the internal arrangements for possible nuclear disasters in the future.

2. Scope

(1) Scope of activities

The scope of activities for the Guidelines is relief activities which should be provided during a nuclear disaster mainly in Japan. The relief activities in the Guidelines include nuclear disaster preparedness activities and recovery activities to restore livelihoods of people affected by a nuclear disaster, as well as medical relief activities to be provided by JRCS relief teams in the event of a nuclear disaster.

The main target audiences are JRCS staff and Red Cross volunteers, who will be responders in the event of a nuclear disaster.

While many response activities relating to a nuclear disaster are common to natural disasters, the Guidelines mainly describe activities unique to a nuclear disaster. For activities common to natural disasters, refer to other JRCS rules, guidelines, manuals and materials which describe activities during natural disasters. However, some of the response activities common to natural disasters, which are important particularly in the event of a nuclear disaster, are mentioned in the Guidelines as considerations.

Annotation:

The target audiences of the Guidelines are JRCS staff (physicians, nurses, radiological technologists and administrative staff working at Japanese Red Cross hospitals, and staff working at JRCS chapters) and Red Cross volunteers (Red Cross volunteer corps members and Junior Red Cross volunteers, etc.) who will engage in relief activities.

(2) Definition of “nuclear disaster”

In the Guidelines, a nuclear disaster is defined as a disaster caused by release of radioactive materials or unusual radiation levels due to [an accident which occurs mainly at nuclear facilities](#)^{1,2,3}. The Guidelines are described based on an assumption of a nuclear disaster, such as the Fukushima Daiichi accident, which causes a large number of evacuees².

Annotation:

The assumption of “nuclear disaster” in the Guidelines is a nuclear disaster which is part of a complex disaster caused by a natural disaster, etc., or a nuclear disaster caused by an accident at nuclear facilities. Therefore, the Guidelines are described on the assumption of providing assistance for the general public affected by such nuclear disasters, not on the assumption of activities in the so-called “hot zone”.

(3) Definition of “phases”

In the following chapters, the Guidelines are described according to three activity phases: Preparedness; Emergency Response; and Recovery. Each phase in the Guidelines is defined as follows:

Preparedness Phase: An activity period to prepare for future nuclear disasters. Preparedness for disaster risk reduction is also included to allow the JRCS to engage efficiently in appropriate activities and reduce potential damage to a minimum level in the event of a nuclear disaster.

Emergency Response Phase: An activity phase to prevent the disaster damage from spreading and people’s quality of life from reducing.

² Therefore, the Guidelines do not include nuclear disasters caused by military attacks that are referred to in the “Act concerning the Measures for Protection of the People in Armed Attack Situations, etc.”

Recovery Phase: *An activity phase to restore what was damaged by a disaster to the pre-disaster state, and to provide activities that take into consideration resolution of problems which existed in a community before the disaster.*

Annotation:

The Guidelines define three phases based on the concept of the Disaster Management Cycle:

Preparedness Phase: This phase means ordinary times. During this period of time, the JRCS prepares for nuclear disasters. (e.g. developing guidelines and manuals; organizing training sessions and seminars for JRCS relief team members; and deploying necessary equipment and materials.)

Emergency Response Phase: During this phase, the JRCS conducts mainly relief activities and provides affected people with immediate support involving their evacuations. (e.g. medical relief activities by relief teams in the event of a mass evacuation following a nuclear disaster; and Red Cross volunteers' activities at evacuation centers.)

Recovery Phase: During this phase, the JRCS provides long-term support. (e.g. support for rebuilding local communities and standing by affected people who will be forced to live under evacuation conditions for a long period of time.)

3. Legal framework of JRCS activities

The JRCS prepares for nuclear disasters to accomplish its humanitarian mission, which is [the Red Cross mission](#)¹¹⁻⁴.

In Japan, JRCS activities are stipulated by [the Japanese Red Cross Society Act](#)¹¹⁻⁵ to provide relief for affected people in emergencies and disasters. The Basic Act on Disaster Control Measures gives the JRCS a position of "[designated public corporation](#)"¹¹⁻⁵. Furthermore, [the Disaster Relief Act](#)¹¹⁻⁵ states that the JRCS is mandated to cooperate with rescue at the request of the national and prefectural governments. [The Act on Special Measures concerning Nuclear Emergency Preparedness](#)¹¹⁻⁵ states that the JRCS should provide relief activities as a designated public corporation in collaboration with related organizations.

Annotation:

This section describes JRCS's provision of humanitarian assistance to affected people of nuclear disasters as the Red Cross mission and the legal framework for the JRCS to respond to nuclear disasters.

4. Characteristics of a nuclear disaster

Release of radioactive materials or radiation, which is a unique event to a nuclear disaster, occurs during the disaster. Therefore, it is necessary to understand the following unique characteristics of a nuclear disaster when conducting relief activities relating to nuclear disasters. The following descriptions mainly include the characteristics of a nuclear disaster which the JRCS should take into consideration when thinking about relief activities to the general public, the target population for the JRCS.

Annotation:

This section describes the characteristics of a nuclear disaster from the viewpoint of JRCS relief activities. The characteristics are summarized in this section to help the Guidelines audiences to understand what they should pay attention to during their activities in each phase of the disaster cycle.

(1) Unique characteristics of a nuclear disaster

When responding to a nuclear disaster, a basic knowledge and an understanding of radiation are needed. Cooperation with organizations and experts specialized in radiation is required throughout all phases of the disaster. Furthermore, the JRCS needs to provide nuclear disaster education and create opportunities for information exchange throughout the JRCS, mainly through two Japanese Red Cross Hospitals³ for atomic bomb survivors and Japanese Red Cross (hereinafter referred to as "JRC") [hospitals designated as radiation emergency hospitals¹¹⁻⁶](#).

Annotation:

The JRCS has two atomic-survivors hospitals which have the experience of responding to atomic-bomb survivors and information and knowledge on the health effects from

³ Hiroshima Red Cross Hospital & Atomic-bomb Survivors Hospital and Japanese Red Cross Nagasaki Genbaku Hospital

radiation. Besides those hospitals, there are JRC hospitals designated as radiation emergency hospitals which are currently preparing for response to nuclear disasters and radiation emergency medicine.

Active collaboration among these hospitals is expected to increase the JRCS preparedness for nuclear disasters in order to allow the JRCS responders to have basic knowledge and understanding about radiation to provide relief activities in a safe and secure way.

(2) Continuous information gathering and situational decision-making

Radiation is unable to be detected by the senses. Thus, [radiation measurement equipment and materials](#)⁴ [need to be prepared in advance](#)¹¹⁻⁷.

The radiation release changes according to the status of a nuclear accident, and the area and extent of the effects are expected to change from moment to moment. In order to secure the safety of JRCS responders, it is important to gather information on radiation release continuously and understand it quickly and correctly. For example, decisions will need to be made based on: the ambient dose rate measured with radiation measurement equipment; the status of the accident site; the disaster-related information such as the forecast of spreading radioactive materials by taking the weather and topography into consideration; and experts' advice.

Annotation:

For the JRCS to provide relief activities during a nuclear disaster, gathering information continuously will become important for the reasons below from a viewpoint of securing the safety of JRCS responders.

The first reason is because the JRCS needs to determine in advance whether or not a JRCS planned activity area or an area where the JRCS activity is underway could be in danger due to a sharp increase in radiation levels. In order to reduce risks during relief activities, the JRCS needs to appropriately assess and determine the situation of the

⁴ Radiation measurement equipment and materials: Personal dosimeter, ionization chamber, survey meter and protective gear for relief team members, etc.

activity areas based on the status of the nuclear accident site, weather conditions and views from radiation experts.

The second reason is because the JRCS relief team members providing the relief activities need to determine if they are in a safe area or not. For this reason, each relief team member is required to measure ambient radiation dose of the activity area constantly and manage his/her cumulative radiation dose.

(3) Rare incidence of acute radiation syndrome

Incidence of life-threatening [acute radiation syndrome](#)^{II-8} is quite rare during a nuclear disaster. Therefore, emergency medical care involving radiation exposure will be less likely needed.

Annotation:

If a person is exposed to a high radiation dose, he/she may develop acute radiation syndrome (ARS), resulting in death. As represented by the past criticality accidents, most cases of high-dose exposure occurred in the vicinity of radiation sources in nuclear facilities. Therefore, it is expected that affected people (residents) in areas where the JRCS is expected to conduct activities in the event of a nuclear disaster are unlikely to be exposed to high-dose radiation.

(4) Possibility of mid- and long-term health problems

On the other hand, health effects from [low-dose radiation exposure](#)^{II-8} have not been clarified yet. Possibilities of developing health problems over a long period of time are also pointed out. Physical consequences may emerge long after exposure to radiation. For these reasons, it is important to estimate radiation exposure dose of JRCS responders as well as evacuees and start providing them with health management, etc. according to their exposed radiation doses immediately after a nuclear accident, if possible.

Annotation:

During a nuclear disaster, JRCS's target populations for its relief activities and JRCS responders may suffer effects from low-radiation exposure. While low-dose exposure effects on human bodies have not been fully understood yet, the possibility of late effects is pointed out. Therefore, reducing of exposure to radiation as much as possible and long-term health management after the activity period are required.

(5) Stress caused by living under evacuation and its possible health effects

After a nuclear disaster occurs, the government, etc. designates areas where the public are restricted to enter (hereinafter referred to as “restricted areas”) in a wide area for a long period of time. As a result, a large number of people flee their homes and they may be forced to evacuate to places far away. Factors such as living in an unfamiliar environment and new locations, relationship with people there and harmful rumors will place more stress on the affected populations than any other disasters.

In addition, stress due to anxiety of radiation effects may cause mid- and long-term health problems. Particularly, children’s outdoor activities may be limited to reduce radiation exposure, which could lead to less exercise and prevent healthy development of their bodies and minds. For the elderly, protracted evacuation, living separately from their family members, stress, lack of exercise and difficulty in access to medical care, etc. may undermine their health.

Annotation:

The Guidelines state that “the government, etc. designates areas where the public are restricted to enter (hereinafter referred to as “restricted areas”). The assumption of the areas is about “restricted areas” stipulated in the Act on Special Measures Concerning Nuclear Emergency Preparedness and areas to which evacuation recommendation or evacuation order is issued.

In Fukushima Prefecture, the direct deaths from the Great East Japan Earthquake and Tsunami have been outnumbered by the in-direct deaths caused by the worsening of physical conditions, overwork and stress over the subsequent prolonged evacuations.

Among the causes, stress comes from various reasons such as anxieties for the future and radiation, and a sense of isolation. The causes vary according to circumstances of each affected individuals, and are invisible. Therefore, JRCS activities need to be conducted with full consideration in providing support by standing by the affected people. Considerations for vulnerable people such as children and the elderly will be especially important.

(6) Weakening of local community functions and isolation of evacuees

Evacuation to a wide area disperses affected populations and weakens local community functions. This will lead to less mutual aid and observation of vulnerable people that the affected populations had in the community. Concerns about radiation effects on children and the necessity of securing family income while being evacuated make many families live separately. This will cause isolation of evacuees, especially elderly people.

Annotation:

In the areas affected by the Fukushima Daiichi accident, the multigenerational families and local communities had played a significant role on the people's lives until the accident occurred. The evacuations divided the families and communities. Different values of the affected people surfaced including different perceptions about radiation risks and their lives in the future. This is making mutual aid among the affected people difficult. It is required to respond to the affected people by taking into consideration the circumstances and conditions on a case-by-case basis.

(7) [Prolonged environmental contamination from radioactive materials](#)^{II-9}

Contamination from radioactive materials spreads to the natural environment and ecosystem such as the soil, rivers and ocean, etc. over time. If the radioactive materials spread into the environment, they could lead to internal exposure through ingestion of foods, drinks and inhalation of particles, etc. Since the effects from the environmental contamination will last for a long time, measures to cope with radiation exposure may be needed not only for the Emergency Response Phase but also for the Recovery Phase.

Annotation:

If radioactive materials with a long half-life period such as cesium are released into natural environments, the effects will be prolonged. Therefore, long-term considerations for response to radiation exposure during JRCS relief activities are required.

(8) Underestimation of preparedness for nuclear disasters

A nuclear accident may cause a huge damage when it occurs. However, the occurrence frequency of nuclear disasters is often expected to be much less than other disasters. Therefore, the preparedness for nuclear disasters tends to be less focused on and thus be inadequate compared to other disasters.

Annotation:

Frequencies and chances of nuclear disaster occurrences are much fewer than those of natural disasters, and the public is less conscious of nuclear disaster prevention/risk reduction. However, once a nuclear disaster occurs, the affected area is much wider and the effects are much more serious than natural disasters. Therefore, the need to address the nuclear disaster prevention/risk reduction is increased. For this reason, it is important to maintain and enhance the public awareness of nuclear disaster prevention/risk reduction through efforts of combining the nuclear disaster preparedness with preparedness for other disasters such as natural disasters.

III. Considerations during activities

1. Importance of information during the initial phase of a nuclear disaster

(1) Possible situations

If a nuclear disaster occurs, the general public will need more information due to anxiety of the disaster but confusion in society may prevent the necessary information and knowledge from being correctly communicated. This could prevent the general public from taking the appropriate action to protect themselves from radiation that should be taken.

It will also be more important for the JRCS to be aware of the conditions in the affected areas. However, the JRCS may continue to face difficulties in obtaining the information.

Annotation:

This section explains that there could be problems with telecommunications and information communication/disclosure during an initial phase after the onset of a large-scale disaster, which leads to a possibility of social confusion.

During the nuclear disaster caused by the Fukushima Daiichi accident, there were cases in which appropriate actions for radiation protection were harmed. The examples are:

- **There were affected people who evacuated to a higher-dose area due to lack of information;**
- **An unexpected mass evacuation occurred, which did not allow for a planned evacuation to be implemented and led to confusion;**
- **There were affected people who evacuated to other prefectures but it was found later that they did not need to.**

Shortly after the nuclear accident, the residents in the area close to the nuclear power plant were not accurately informed of the accident's seriousness and prospects for evacuation. This made the residents anxious. According to a survey report, even though the residents were ordered to evacuate, they were told that they would evacuate only temporarily. The report also says that there were no expectations that the evacuation would be prolonged.

Also at the JRCS HQ and the Fukushima Chapter in the affected area, incoming reports

in the initial phase were confusing and conflicting, and they had difficulties in the awareness of the damage and making decisions for the JRCS activities.

(2) Information gathering during the initial phase of a nuclear disaster

In order to smoothly provide effective relief activities during the above-mentioned initial phase of a nuclear disaster, it will be important for the JRCS to collaborate with other external organizations, gather information and communicate with them. To facilitate this, the JRCS needs to build a cooperative relationship with public authorities and organizations specialized in radiation during the Preparedness Phase. During the initial phase of a nuclear disaster, the JRCS will need to gather information about the overall needs and how those external organizations respond to the disaster in order to manage the JRCS relief activities appropriately.

As for communication with the affected populations in the affected areas, JRCS responders should be careful about their words and behaviors to avoid making the affected populations excessively anxious. At the same time, the JRCS responders need to provide proper information for the affected populations to try to reduce their anxiety. It might be possible for the JRCS to provide correct knowledge to the affected populations to encourage them to choose action which could avert the radiation effects as much as possible.

Annotation:

During the nuclear disaster in Fukushima, significant issues in disaster communication on both the government and private sector levels came to the surface. Therefore, the JRCS thinks that preparations need to be made for JRCS responders who will communicate with affected people at evacuation centers, etc. in the event of a nuclear disaster.

Collaboration with the public authorities and specialized organizations is important in terms of: awareness of the big picture of a nuclear disaster and relief activities; quick gathering of accurate information; awareness of affected people's needs and the status of the affected areas; and encouraging the public authorities to provide necessary support to the affected people. This is also the case for natural disasters. With this in mind, the JRCS will have discussions with related organizations for further cooperation.

2. Response to people requiring special consideration

(1) Possible problems

During a nuclear disaster, people requiring special consideration will have the same problems as during other disasters. However, the unique characteristics of a nuclear disaster may increase the degree of the problems especially in information awareness, travel (evacuation), capabilities for maintaining their livelihoods, and adaptation to a new environment.

Annotation:

People requiring special consideration have disorders or problems. Therefore, the JRCS needs to conduct relief activities by taking them into consideration during a nuclear disaster. For example, people with visual and hearing disabilities and foreigners have difficulties in recognizing information about the disaster by usual disaster alarming means (e.g. siren, community wireless system, fax and radio). The elderly and physically disabled people have physical constraints in evacuation such as difficulty in evacuating alone. If a patient relies on a respirator, life may be threatened due to loss of power.

Depending on disability types, it may be difficult for disabled people to adapt to evacuation centers which accommodate many and unspecified people or to unfamiliar environments. These problems could happen in all types of disasters. However, these problems may be intensified during a nuclear disaster because the disaster occurrence cannot be detected with the five senses and evacuation may extend to wider areas and be prolonged. These are unique to a nuclear disaster.

Shortly after the Fukushima Daiichi accident, the elderly and disabled people who needed nursing care died due to the long-distance transportation needed for evacuation. There were also many elderly people who got sick from physical and mental stress due to the prolonged evacuation and died (in-direct deaths).

(2) [Response to people requiring special consideration](#)^{III-1}

The JRCS needs to pay attention to the response to people requiring special consideration in providing relief activities at evacuation centers and temporary housing, etc. during the phases of Preparedness, Emergency Response and Recovery. Particularly in responding to elderly and physically-challenged people, etc., the JRCS shall cooperate with other specialized organizations.

Annotation:

Shortly after the Fukushima Daiichi accident, many in-patients and residents staying at hospitals and social welfare facilities had to be evacuated. When relief activities are provided for people requiring special consideration, it is necessary to be aware of and understand the characteristics of their needs. Therefore, it is important for the JRCS to cooperate with each JRC facility and its staff, public health offices, councils of social welfare, nursing/social welfare groups and specialized groups/organizations in taking care of each type of people requiring special consideration in each local area.

3. Affected populations' stress

(1) Possible stress

A large-scale and long-term evacuation due to a nuclear disaster increases affected populations' stress because a large number of people live together at evacuation centers and temporary housing, etc. Their stress may be intensified by living in new unfamiliar areas and environments and interacting with new unfamiliar human relationships. In addition, if the damage turns out to be more serious, they could feel frustrated or helpless. Divided communities may isolate the affected populations more and this could prevent them from alleviating the stress or recovering from the stress.

Annotation:

Once a nuclear disaster occurs, it is expected that there will be large-scale, wide-area and prolonged evacuations. This could increase the evacuees' stress caused by loss of their livelihoods.

(2) Response to affected populations' stress

Affected populations are expected to experience mid- to long-term evacuation. They may live in fear of radiation of where they live after the nuclear accident. Therefore, attention should be paid to the necessity of continued mid- to long-term response to the affected populations.

In addition, their stress needs a comprehensive response not only by [JRCS's psychosocial support via its psychological care activities^{III-2}](#) but also in cooperation with local public health nurses and clinical psychologists.

Annotation:

This section describes the necessity of providing mid- and long-term comprehensive assistance for evacuees in consideration of how they feel about the prolonged evacuations and the release of radioactive materials.

JRCS psychosocial care activities involve psychosocial support which comprises of psychological support to affected individuals and social support to the relationship between the individual and his/her family or local community. The psychosocial support is provided by JRCS relief team members and Red Cross volunteers who are not psychological specialists. Therefore, depending on the cases, it may be necessary to cooperate with organizations/groups specialized in psychiatric medicine or mental health.

4. JRCS responders' stress

(1) Possible stress

It is unlikely to develop acute health problems due to radiation effects. However, JRCS responders could be exposed to radiation while providing relief activities during a nuclear disaster. Therefore, concerns about their possible long-term health effects may arise. This is one of the characteristics of a nuclear disaster. Their basic stress and cumulative stress are considered to increase more than during natural disasters.

Annotation:

This section explains that people may suffer or accumulate more stress during a nuclear disaster than natural disasters because the effects from low-dose radiation exposure are mostly still unknown and the perception of the effects varies according to individuals.

After the onset of the Fukushima Daiichi accident, JRCS responders worked in the radiological environment that nobody had ever experienced. Under those circumstances, the responders were anxious about their exposure to radiation and late effects from radiation.

(2) Response to JRCS responders' stress

For JRCS responders to cope with their stress involving performing their duties, they need to correctly understand the stress symptoms and prepare for the stress. Since they are expected to provide activities under unusual circumstances, they also need to be educated in advance to understand and recognize the psychological conditions which they may experience under such circumstances.

To reduce JRCS responders' anxiety, it is necessary to provide them with full arrangements in securing their safety and sufficient information during their activities. After their activities are completed, they should be, if needed, provided with medical and psychological care.

Annotation:

This section describes how the JRCS should respond to stress which JRCS responders suffer from due to engagement in activities in an unusual environment caused by a nuclear disaster.

The purpose of the pre-disaster education to JRCS responders is so that they will understand the stress they encounter while providing activities and learn the correct knowledge about radiation and radiation protection. The JRCS thinks that the responders are able to remove excessive fear and anxieties about conducting activities in a radiological environment and mitigate stress by ensuring the safety for themselves.

There is a possibility of late radiation effects on human bodies. Therefore, the section also describes the necessity of physical and mental care after they finish their activities.

5. Safety management for responders who live in an affected area

(1) Possible situations

In an area affected by a nuclear disaster, responders who live there are expected to be exposed to higher radiation doses in their daily lives than before the disaster due to release of radioactive materials, etc.

Annotation:

This section is about JRCS responders who live in an affected area or continue to stay in the affected area for long periods of time to engage in activities.

(2) Considerations and health management, etc.

Given that JRCS responders living in the affected area could be exposed to higher radiation doses in their daily lives, they need to be given a different response in terms of safety standards from that for JRCS responders deployed to the affected area from non-affected areas to provide relief activities.

With respect to education about radiation, all JRCS responders as well as JRCS relief team members shall be informed and educated about radiation during the Preparedness Phase to ensure the safety of the JRCS responders in the event of a nuclear disaster.

In order to maintain the physical and mental health of JRCS responders who live in the affected area, the following considerations will be needed during the Emergency Response Phase: information provision and briefing about radiation before starting their relief activities; and psychological care such as listening and counseling. In addition, mid- and long-term care during the Recovery Phase for the responders will need to be enhanced.

Annotation:

In the affected area, there are local JRCS responders who live and have their livelihoods there. There will also be some other JRCS responders in the affected area that will stay to engage in activities there for long periods of time. They will need to be given special operations different from those for JRCS responders who will be dispatched from non-affected areas to the affected area for a short-term relief activity.

The JRCS has developed a “Guidance for safety management regarding staff living in an affected area in the event of a nuclear disaster” in which necessary operations and considerations are clarified in order to secure the health, safety and security of these JRCS responders.

IV. Preparedness

1. Definition and positioning of Preparedness

Preparedness Phase is defined as a period to prepare for future nuclear disasters. Preparedness for disaster prevention and disaster risk reduction is also included to allow appropriate relief activities to be provided smoothly and damage to be reduced to a minimum level in the event of a nuclear disaster. To be more specific, the following activities are included: establishment of a structure and chain of command on the assumption that a nuclear disaster may occur; creation of manuals, etc. and training according to the manuals; collaboration with related organizations; securing necessary equipment and materials; gathering and sharing information and knowledge about past nuclear disasters, etc.

Annotation:

This chapter describes the activities which should be carried out during the “Preparedness Phase” mentioned in II. Purpose and scope, 2 (3).

It is important to have arrangements in place during ordinary times to respond to nuclear disasters based on the experiences and reflections from the Fukushima Daiichi accident. This will allow damage to be prevented or reduced to the minimum level in the event of a nuclear disaster.

Once a nuclear disaster occurs, basic knowledge and understanding about radiation is required when conducting activities. Equipment and materials to secure safety of JRCS responders during their activities also need to be prepared in advance. For these reasons, activities during the Preparedness Phase will be very important.

2. JRCS activities

(1) Course of action

In order to respond to a nuclear disaster during the Emergency Response Phase and thereafter, the JRCS Headquarters (hereinafter referred to as “JRCS HQ”), JRCS chapters and JRCS facilities shall initiate the following steps during the Preparedness Phase: sharing of necessary information; preparation of necessary equipment and materials; creation of a code of conduct, etc. and provision of training; development of human resources; and build-up of human/organizational networks.

Annotation:

This section describes the basic policy for activities which the JRCS should carry out during the Preparedness Phase.

(2) Activities

1) Activities

Activities in the Preparedness Phase include preparedness for nuclear disasters within the JRCS, and raising public awareness aimed at minimizing health problems in the event of a nuclear disaster.

Annotation:

The JRCS preparedness and activities for public awareness are described in a. to c. and e., respectively.

2) Content of activities

For preparedness activities within the JRCS, the JRCS HQ shall take the lead in: reviewing how to respond to a nuclear disaster; [preparing equipment and materials such as radiation measurement devices^{IV-1}](#), securing the quality of human resources such as JRCS radiation experts and JRCS relief team members; and addressing disaster risk reduction in prefectures with a nuclear power plant and the neighboring prefectures.

For activities to the general public, public awareness activities are assumed in order to minimize health problems in the event of a nuclear disaster.

Annotation:

The JRCS preparedness will be carried out mainly by the JRCS HQ. The JRCS did not have sufficient arrangements for nuclear disaster response both in physical and material aspects when the Fukushima Daiichi accident occurred. Therefore, the JRCS is reviewing and preparing for nuclear disaster response by focusing on these aspects.

a. JRCS HQ-led reviewing and strengthening of response to a nuclear disaster

Preparedness for nuclear disasters tends to be less focused on than other disasters, which may lead to less preparedness. The JRCS HQ shall review its relief activities and arrangements on a continued basis to pass on the lessons learned from the Fukushima Daiichi accident to the next generations.

Activity examples:

- *Reviewing of relief activities during a nuclear disaster and defining of activities in detail;*
- *Education and training to allow JRCS responders to provide activities during a nuclear disaster;*
- *Provision of equipment and materials such as radiation measurement devices to JRCS relief teams and facilities;*
- *Build-up of collaborative relationships with organizations and experts specialized in radiation.*

Annotation:

This section specifically describes preparing JRCS arrangements which allow the JRCS to respond to nuclear disasters. The JRCS will continuously review its measures in prospect of consistency with related laws and regulations and cooperation within and outside of the JRCS.

b. Securing of the quality of human resources

In addition to establishing the internal arrangements, the JRCS shall provide [education, training^{IV-2}](#) and opportunities for information exchange mainly to JRCS radiation experts and relief team members to allow them to correctly understand radiation and provide appropriate assistance in an affected area. The JRCS relief team members, etc. shall be educated and trained on how to properly protect themselves from radiation to secure their safety during activities. A JRCS internal forum for information exchange shall be set up in order to utilize internal knowledge that is stored and to enhance the collaboration within the JRCS in case of a nuclear disaster.

Activity examples:

- *Radiation education for JRCS relief team members across Japan;*
- *Designing of an education program for JRCS relief team members by radiation experts;*
- *Regular information exchange meetings among JRC hospitals designated as radiation emergency hospitals.*

Annotation:

This section specifically describes nurturing human resources who can support the arrangements mentioned in the above item a. The JRCS will set up opportunities for developing human resources in order to enhance the individual and organizational capabilities to respond to nuclear disasters. The human resource development will be carried out mainly for radiation experts and relief team members.

c. Efforts for disaster risk reduction by JRCS chapters and facilities located in prefectures with a nuclear power plant and in the neighboring prefectures

Based on concerns of a possible nuclear disaster, response to a nuclear disaster shall be prepared for by JRCS chapters and facilities located in prefectures with a nuclear power plant and the neighboring prefectures. JRC hospitals and social welfare facilities shall prepare for evacuation from their facilities and also try to build external relationships in order to be able to accept evacuees from other facilities.

Activity examples:

- *Exercises at JRC facilities to prepare for a nuclear disaster or accepting evacuees from other facilities;*
- *Ensuring of facilities which accept patients or persons staying at JRC facilities on the assumption of evacuation from the JRC facilities in the event of a nuclear disaster.*

Annotation:

This section specifically describes efforts for disaster risk reduction by JRCS chapters and facilities in prefectures with nuclear power plants and the neighboring prefectures. These chapters and facilities need to prepare their measures and arrangements which are suitable for the regional circumstances.

It is expected that the chapters and facilities will prepare plans for evacuation and acceptance of patients from other facilities in cooperation with related organizations based on the plan established by each local government.

d. Public awareness activities

In the case of a nuclear disaster, basic knowledge and understanding of radiation will be needed to cope with the disaster appropriately. The JRCS shall disseminate reliable information, raise awareness, and provide educational activities to the general public by

utilizing JRCS's internal and external networks to help and encourage them to understand a nuclear disaster accurately and to evacuate properly. These activities will be necessary particularly in areas where the chances of evacuation will be higher in the event of a nuclear disaster.

Activity examples:

- *Sharing of information on nuclear disasters and radiation through the Red Cross Nuclear Disaster Resource Center's Digital Archives;*
- *Gathering, compiling and dissemination of information on health effects from a nuclear disaster and the prevention measures;*
- *Organizing and holding of seminars on nuclear disasters.*

Annotation:

It is expected that encouraging the public to understand radiation and nuclear disasters during the Preparedness Phase will allow them to cope with the disaster, evacuate properly and take action to reduce health problems from radiation in the event of a nuclear disaster. The JRCS will continue to raise public awareness about radiation and nuclear disasters through information sharing and organizing seminars and other means.

V. Emergency Response

1. Definition and positioning of Emergency Response

The Emergency Response Phase is defined as an activity phase to urgently respond to imminent humanitarian needs and prevent damage from spreading, when a nuclear disaster has occurred or is likely to occur.

When a nuclear disaster has occurred or is likely to occur, the JRCS shall go into a relief activity mode.

Annotation:

This section describes the activities which should be carried out during the “Emergency Response Phase” mentioned in II. Purpose and scope, 2 (3).

The purpose of the activities during this phase is to prevent disaster damage from spreading and people’s quality of life from being reduced in the event of a nuclear disaster. These activities are based on the Red Cross principles.

The section also explains that the JRCS will go into relief activity mode when a nuclear disaster has occurred or could occur.

2. JRCS activities

(1) Course of action

As is the case with domestic relief activities during natural disasters, etc., the JRCS shall conduct necessary disaster relief activities including [medical relief, stockpiling and distribution of relief supplies, supplying of blood products, receiving and distribution of donations](#)^{V-1}.

The JRCS shall provide activities mentioned in the section below to respond to events specific to a nuclear disaster by taking advantage of the characteristics of the JRCS services, knowhow and human resources, etc.

Annotation:

The scope of the JRCS relief activities in Japan for a nuclear disaster is the same as that for natural disasters, and the activities mentioned in the above “Course of action” are stated in the Japanese Red Cross Relief Rules.

These activities are determined and conducted voluntarily by the JRCS based on the Red Cross principles. In addition to these voluntary activities, the JRCS is required to cooperate with relief activities of the national and local governments because the JRCS is a designated public corporation stated in the Disaster Relief Act and the Basic Act on Disaster Control Measures.

In the section (2) below, the activities based on the characteristics of nuclear disasters are described.

(2) Target populations and content of activities

1) Target populations

The main target populations are affected populations living under evacuation conditions in an affected area.

However, the JRCS shall try to provide the same activities for affected populations evacuated to outside of the affected area, because a nuclear disaster may cause a mass evacuation in a wide area.

Annotation:

The assumption of an affected area in this section is prefectures with nuclear power plants. The JRCS activities will be mainly assistance to affected people in the affected prefecture in the event of a nuclear disaster. However, some of the affected people may evacuate to outside of the affected prefecture during a nuclear disaster. Therefore, the target prefectures for assistance may be expanded. After the Fukushima Daiichi accident, some municipalities in the affected area evacuated many of their residents in groups to outside of Fukushima Prefecture.

It will be necessary to prepare JRCS-wide arrangements for affected people who evacuate to non-affected areas so that they can receive JRCS services wherever a nuclear disaster occurs.

2) Content of activities

a. Medical relief activities in an affected area

In an affected area where a large number of people evacuate over a wide area, a medical environment will be needed for affected populations to be able to receive medical relief

and be provided with medical care as they were before the nuclear disaster. To this end, the JRCS shall continue to provide medical relief activities until normal medical services are re-established for the affected populations.

Activity examples:

- *Provision of medical relief activities at first aid stations (during acute and chronic phases) ^{*} ;*
- *Stable provision of blood products^{*};*
- *Dispatch of radiation experts to JRC hospitals and JRC social welfare facilities if they are temporarily left in evacuation recommendation area.*

Annotation:

JRCS medical relief activities fill a void until hospital functions recover in the affected area.

The assumption of an affected area referred to in this section is an area where the public needs relief due to a nuclear accident or an earthquake.

b. Provision of radiation emergency medical care

Medical response to health problems from radiation will be needed. The JRCS shall provide special medical care through JRC hospitals within the radiation emergency medical care arrangements established by the Japanese government.

Activity examples:

- *Provision of radiation emergency medical care at JRC hospitals;*
- *Assistance in providing body contamination screening at screening points^{*}.*

Annotation:

The radiation emergency medical care system in Japan consists of: (1) primary radiation emergency hospitals that provide primary and emergency medical care; (2) secondary radiation emergency hospitals that provide specialized medical care; and (3)

^{*} *Activities provided by the JRCS in response to the Fukushima Daiichi accident. The same shall apply hereinafter.*

tertiary radiation emergency hospitals that provide highly-advanced specialized medical care.

The JRCS has JRC hospitals which are designated as primary or secondary radiation emergency hospitals. In addition to the designated hospitals, the JRC atomic-bomb survivors hospitals in Hiroshima and Nagasaki and Fukushima Red Cross Hospital with experience of responding to the Fukushima Daiichi accident have the arrangements in place to support radiation emergency medical care.

The JRCS is considering providing support in body contamination screening mainly by radiological technologists who work at JRC hospitals as a future Red Cross role in the event of a nuclear disaster.

c. Assistance in reducing affected populations' livelihood burden during evacuation

During a nuclear disaster, there will be a mass evacuation in a wide area. Furthermore, the evacuation will be prolonged and affected populations' lives will be significantly affected. Therefore, it will be needed in a wide area on a continued basis to assist affected populations to get their lives back to normal and respond to their increased stress due to the nuclear disaster. The JRCS shall utilize its organizational capabilities and capacities to help affected populations to try to reduce their livelihood and psychological burden by distributing [relief supplies](#)^{V-2} quickly across a wide area, and continuing to communicate with the affected populations and listen to them.

The JRCS may be able to cooperate with public authorities and other aid organizations in terms of reducing the affected populations' livelihood burden. To help them to alleviate their psychological stress, the JRCS may be able to collaborate with public health nurses, physicians and clinical psychologists to assist the affected populations.

Activity examples:

- *Distribution of relief supplies to evacuation centers, etc. (sleeping kits, emergency relief sets and blankets)*;*
- *Volunteer activities such as providing hot meals by Red Cross Volunteer Corps*;*
- *Provision of psychosocial care by psychosocial care teams*;*
- *Assistance in living in temporary housing, etc. (e.g. [provision of electric household appliances sets, etc.](#)^{V-3}, [provision of equipment for meeting rooms located within](#)*

[temporary housing premises^{V-4}](#))*.

Annotation:

This section describes the JRCS's support for reducing livelihood burden and psychological stress on affected people during an evacuation.

The affected people face a wide-area and mid- to long-term evacuation. This makes them feel even more anxious about the continued uncertainty in their lives and loss of their livelihood. Furthermore, they become more worried about the health effects from radiation and the invisible radiation risks. This could give them continuous intense stress. Therefore, they will need various continued support in terms of both livelihood and mental health.

If there are affected individuals who are thought to be in a condition to need specialized support, the JRCS will play a role of referring them to the public health authorities or medical/social welfare professionals.

d. Assistance for affected populations to decide correctly on radiation effects

Lack of basic knowledge about radiation may increase affected populations' anxiety or stress. Particularly, they will need reliable information and knowledge about health effects from radiation. The JRCS may be able to help the affected populations to decide on the effects by referring them to institutions, etc. who provide necessary information about radiation.

Activity examples:

- *Provision of information and knowledge about radiation protection at first aid stations, etc. in affected areas;*
- *Provision of health lectures for affected populations by radiation experts*.*

Annotation:

The JRCS will provide affected people with opportunities to receive information and lectures from radiation experts to help them understand radiation effects and make appropriate decisions on the effects for themselves.

3. Chain of command and information gathering/assessment

In order to provide quick and appropriate relief assistance for an affected area, [the chain of command is described in the Guidelines as below^{V-5}](#). Assessment of needs in the affected area and examples of information which should be gathered during a nuclear disaster are also indicated in the Guidelines.

Annotation:

This section describes the chain of command for JRCS relief activities during a nuclear disaster, information gathering and assessment of needs which are necessary to develop relief activities.

(1) Chain of command

1) Establishment of disaster alert headquarters or headquarters of disaster control

When a nuclear disaster has occurred and the president of the JRCS or a JRCS chapter president in an affected area determines the need, headquarters of disaster control (hereinafter referred to as "HDC") shall be established at the JRCS HQ or the JRCS chapter. When a nuclear disaster is likely to occur, disaster alert headquarters shall be established at the JRCS HQ or the JRCS chapter.

Annotation:

If the president of the JRCS determines the necessity, "disaster alert headquarters" will be set up at the JRCS HQ when a nuclear accident is likely to occur, and "HDC" will be set up at the JRCS HQ when a nuclear accident has already occurred and it is in a phase to take measures. This is also the case for a JRCS chapter in an affected area. If the president of the chapter determines the necessity, "disaster alert headquarters" or "HDC" will be set up at the chapter.

However, the JRCS Disaster Relief Structure Rules stipulate to go into the tertiary relief structure immediately in the event of a significant accident (e.g. a nuclear accident). Therefore, the JRCS HQ will enter the relief structure even without a request for relief from the chapter in the affected area.

2) Request for relief assistance

If a JRCS chapter in charge of providing disaster relief activities in an affected area recognizes a lack of relief resources, the chapter shall, as a general rule, request for relief

assistance to the JRCS HQ through its block (i.e. area zone) representative chapter. However, the chapter may request for relief assistance directly to the JRCS HQ.

Annotation:

This section explains a route through which a JRCS chapter in an affected area asks for relief assistance, if needed.

3) Assistance to the chapter in the affected area

Following the request for relief assistance, the JRCS HQ shall immediately dispatch radiation emergency medical care advisors⁵ to the affected area to identify necessary relief activities to be provided and be aware of what is necessary for safety management of JRCS responders to be deployed in the affected area.

The radiation emergency medical care advisors are commissioned by the JRCS HQ in advance. Their possible dispatch to an affected area shall be accepted by their JRCS chapters beforehand during the Preparedness Phase to make sure that the JRCS HQ is able to request the dispatch directly to the Directors General of JRC Hospitals which the radiation emergency medical care advisors belong to, if a nuclear disaster occurs.

Annotation:

If the JRCS HQ receives a request for relief from a chapter in an affected area during a nuclear disaster, the JRCS HQ will dispatch radiation emergency medical care advisors to the affected area first to assess the area before deploying JRCS relief teams.

The dispatched advisors will conduct their activities under the command of the HDC at the chapter in the affected area.

4) Orders to JRCS chapters to assist the JRCS chapter in the affected area

Following the request from the JRCS chapter in the affected area and advice from the radiation emergency medical care advisors, the JRCS HQ shall give necessary orders to JRCS block representative chapters and related JRCS chapters for assisting the JRCS

⁵ For radiation emergency medical care advisors, refer to V. 4. (2) 1) Deployment of radiation emergency medical care advisors, Page 37.

chapter in the affected area.

Annotation:

The JRCS HQ decides its relief activity policy based on information about the needs received from the chapter in the affected area and advice from the radiation emergency medical care advisors dispatched to the affected area. Then the JRCS HQ gives instructions to block representative chapters and related chapters for relief activities including the dispatch of their relief teams.

The “related JRCS chapters” in this section are expected to be chapters with JRC hospitals designated as radiation emergency hospitals or with the JRC atomic-bomb survivors hospitals in Nagasaki and Hiroshima.

5) Dispatch of JRCS relief teams, etc. to the affected area

The JRCS chapters and JRC facilities which receive orders for assistance from the JRCS HQ or their block representative chapters, etc. shall dispatch their relief teams, etc. to the affected area after giving safety guidance and providing radiation protective equipment and materials to them.

Annotation:

If JRCS chapters and facilities receive orders for assistance from the JRCS HQ, they will dispatch their relief teams to the affected area. Necessary steps and instructions are taken and given to the relief teams before leaving for the affected area by the radiation emergency medical care advisors or staff members who have participated in the JRCS Nuclear Disaster Response Basic Training Session during the Preparedness Phase.

6) Command to the dispatched JRCS relief teams, etc.

The dispatched JRCS relief teams, etc. shall be commanded by the president of the JRCS chapter in the affected area regarding their relief activities, as they are in the event of natural disasters.

Annotation:

The dispatched JRCS relief teams conduct their activities following the JRCS Relief Rules. Therefore, they are commanded by the president of the JRCS chapter in the

affected area during a nuclear disaster. The president is given advice from the radiation emergency medical care advisors who have been dispatched to the chapter.

(2) Information gathering/assessment

1) Identification and assessment of needs for assistance in an affected area

A nuclear disaster affects a large number of people in a wide area. Necessary assistance should be provided to areas with great needs. To that end, the JRCS chapter in the affected area shall identify the needs for assistance and assess the conditions of the area where JRCS relief teams are to be deployed, in collaboration with the local governments in the affected area and JRCS chapters in the neighboring prefectures.

Annotation:

First, a JRCS chapter in an affected area begins to gather information on what kind of assistance is needed and where it is needed, in cooperation with local governments in the affected area and the neighboring prefectures. Based on the information they gather, the chapter considers where the JRCS should conduct activities (i.e. candidate activity areas).

2) Awareness and assessment of the environment in the activity area

There are some specific types of information which need to be collected in the event of a nuclear disaster. The types of information that need to be collected when radioactive materials are likely to be released are: the status of the nuclear power plant accident site; meteorological conditions (wind direction, wind speed and weather); topography; and the distance from the nuclear power plant to the planned JRCS activity area. Based on these items, it will be decided whether providing activities in the area is safe or not. The additional types of information that need to be collected after radioactive materials are released are: amount and types of the released radioactive materials; and ambient radiation dose rates in the planned activity area. These types of information will be important to secure the safety of JRCS relief teams. The JRCS HQ and the JRCS chapter in the affected area shall gather the above information to be aware of the environment of the JRCS activity area.

For types of information common to general relief activities, JRCS relief teams shall gather

and communicate information as they do during natural disasters. In particular, extra attention shall be paid to “information to ensure the safety of JRCS relief team members”⁶.

The information gathered by the JRCS relief teams regarding the nuclear disaster shall be consolidated to the JRCS chapter HDC in the affected area and the JRCS HQ HDC via the radiation emergency medical care advisors. The HDCs shall use the information to ensure the safety of JRCS responders. The gained information shall be shared not only within the JRCS but also with public authorities, etc. as much as possible.

Annotation:

Based on the assessment made in the above Section 1), the safety of the planned activity areas (candidate activity areas) will be assessed and the activity area will be decided.

Before and after the release of radioactive materials, the information and standards necessary for the assessment will change. Using the assessment, the JRCS will try to ensure the safety of its responders.

The difference from natural disasters is that the release/accumulation of radioactive materials into/in the environment causes risks of low-dose radiation exposure and health problems. For this reason, the awareness and assessment of the environment concerning the JRCS activity area will be important, which is described in the Guidelines as considerations.

4. Ensuring of JRCS responders’ safety

It is essential to ensure the safety of JRCS responders during a nuclear disaster. The purpose is to remove unnecessary anxieties from them by providing a safe activity environment where they are able to dedicate themselves to conducting their activities and provide relief activities continuously for the affected populations.

⁶ The information is on essential utilities, roads (road closures, traffic controls, road surface conditions, etc.), damage expectations (possible secondary damage and risk factors), temperature, weather and the status of affected populations, etc.

Annotation:

For relief activities during a nuclear disaster, it is necessary for the JRCS to ensure the safety of JRCS responders and prepare an environment where they can be dedicated to relief activities.

During the Fukushima Daiichi accident, the safety preparedness of JRCS responders was insufficient in terms of internal arrangements. This hampered some of the JRCS relief activities.

Based on that experience, the JRCS has established its safety standards and arrangements to secure the responders' safety, which are described throughout this section.

The JRCS thinks that securing the safety of the responders will make it possible to provide relief activities to affected people.

(1) Safety standards

For activities during a nuclear disaster, the JRCS shall conduct safety management for JRCS responders by measuring and managing their radiation doses and assigning their activity areas. JRCS responders such as JRCS relief team members, etc. shall receive an extra health examination, and then the heads of their facilities shall decide on whether they should be dispatched to an affected area or not, based on the health examination results.

Annotation:

The JRCS designates activity areas and sets safety standards for radiation dose management to secure the safety of each responder.

1) Activity area management

In order to secure the safety of JRCS responders, they shall not enter any restricted areas, etc.

During the activities, JRCS relief teams need to pay a full attention to changes in the ambient radiation dose rate. If the dose rate sharply increases in their activity area, the team shall contact the radiation emergency medical care advisors deployed at the JRCS chapter HDC in the affected area to ask for a decision on leaving the area or sheltering

indoors⁷ etc. to avoid risk of radiation exposure.

The JRCS blood service may be provided in order to continue medical care for patients who temporarily stay in areas such as evacuation recommendation area⁸ where ambient radiation dose rate is high. Therefore, the above standard for activity area shall not be applied to the JRCS blood service personnel. In addition, if JRCS staff engage in radiation emergency medical care or temporarily stay in an area of a high ambient radiation dose until transportation arrangements for patients are in place at hospitals, etc. in order to evacuate the patients safely, the above activity area shall not be applied to those staff.

More consideration must be given to Red Cross volunteers. Activity areas for the volunteers must be outside of restricted areas, etc. or in areas where the ambient radiation dose rate is stable and their radiation exposure risks can be easily managed.

Annotation:

As a general rule, JRCS relief teams and JRCS general staff conduct activities outside of restricted areas, etc. to which public access is limited by the government, etc. The restricted areas are stipulated in Article 27 (6) of the Act on Special Measures Concerning Nuclear Emergency Preparedness as areas to which access is prohibited or from which withdrawal is ordered by a municipal mayor, excluding people to engage in implementation of emergency response measures and people whose temporary entry are allowed by the mayor. In addition to the restricted areas, the JRCS relief teams shall not conduct activities in areas to which evacuation recommendation or evacuation order is issued and areas on which a decision is made that it is not possible for the JRCS to provide relief activities safely. When areas where the JRCS relief teams have begun relief activities are designated as restricted areas, etc., the relief teams may cease their relief activities and then temporarily evacuate or completely leave the areas.

If a nuclear accident occurs, it is expected that many residents will evacuate from areas

⁷ [The Nuclear Emergency Response Guidelines of the Japanese government](#)^{V-6} show that the default value for OIL2 (taking early protective actions) shall be ambient radiation dose rate of 20 $\mu\text{Sv/h}$.

⁸ The JRCS Blood Service Headquarters uses the term "evacuation recommendation area" in its guidelines for blood service.

with a high level of radiation to areas with less radioactive effects. In order to accept those affected populations, a number of relief teams will need to be mobilized. The JRCS relief teams will be exactly part of them.

Also, it is expected that the effects from radiation after the onset of a nuclear accident will change from time to time, depending on the meteorological conditions and topography. During such a period of time, it is not necessarily safe even on the outside of the restricted areas, etc. Therefore, JRCS relief team members need to fully pay attention to the ambient dose rate in their activity area. If they recognize any change, it is important to inform the radiation emergency medical care advisors and ask for instructions from the specialists' point of view.

For patients who have to temporarily stay in areas with high ambient dose rate and need blood products, the "Guidelines for Risk Management of Blood Services" separately state the supply operations for hospitals that are within evacuation recommendation areas**.

If JRCS staff engage in radiation emergency medical care or work at JRC hospitals, etc., they may temporarily stay in areas with high ambient dose rate until they evacuate the patients safely.

If the JRCS staff have to stay in the areas with high ambient dose rate, it is necessary to engage in activities for a short time in these areas and spend much time in safe places by securing spaces where they can be shielded from radiation as much as possible.

Japanese Red Cross Volunteer Corps and other Red Cross volunteers are not educated or trained about radiation. Therefore, the JRCS thinks that the safety of the volunteers during activities needs to be taken into more consideration even if the activities are provided outside of restricted areas, etc.

** The term "within evacuation recommendation areas" is used in the "Guidelines for Risk Management of Blood Services".

2) Radiation dose management for JRCS responders

a. Necessity of radiation dose management

Health risks from radiation are quantifiable by radiation exposure dose. The daily measurement allows JRCS responders' physical effects during their activity period to be visualized. This enables the JRCS to manage the radiation dose of each JRCS responder so that his/her dose can fall within the safety standards.

A comprehensive radiation dose management with the safety standards makes it possible to control the JRCS responders' health effects from radiation to be within the acceptable range and to limit their activity areas. This allows their anxiety to be removed.

The setting of the safety standards reassures not only JRCS responders but also JRC hospitals and chapters who dispatch their relief team members accounting for most of the JRCS responders, to an affected area, by guaranteeing the safety of the responders with the safety standards. It is expected that this will enable the JRCS to mobilize its responders from across the country and the relief activities to be coordinated smoothly in the event of a nuclear disaster.

Annotation:

This section describes the necessity of radiation dose management while conducting activities during a nuclear disaster. The personal radiation dose management will be very important for risk reduction of health problems from low-dose radiation exposure.

b. Safety standards for JRCS responders

Cumulative radiation dose for each JRCS responder during an activity period⁹ shall not exceed 1 mSv^{V-7}.

However, this safety standard is not applied to JRCS radiation emergency medical care personnel. Even in that case, each of the radiation emergency medical care personnel shall provide activities as long as the cumulative radiation dose does not exceed 50 mSv

⁹ The activity period of a JRCS relief team is basically within one week. Therefore, the JRCS relief team shall engage in relief activities as long as each team member's cumulative radiation dose does not exceed 1 mSv per week. (This means that it is effectively possible for the JRCS to conduct activities in an area equivalent of 50 mSv per year.)

per year, which is the legal dose limit per year for radiation workers.

The safety standard is not applied to JRCS blood service personnel, either. Even in that case, each of them shall provide activities as long as the cumulative radiation dose does not exceed 20 mSv per year.

Annotation:

The JRCS safety standard for general responders is based on the dose limit for individual members of the general public mentioned in the 1990 Recommendations of the ICRP. Since not all of the JRCS responders are medical personnel who have knowledge about radiation, the JRCS thinks that the application of the same standard as that for the general public will allow the JRCS responders to conduct relief activities in the affected area without any problem.

The radiation emergency medical care personnel mentioned in this section are assumed to be JRCS staff who belong to JRC hospitals designated as radiation emergency hospitals and have received special training.

The safety standard for JRCS blood service personnel is stated in the “Guidelines for Risk Management of Blood Services” that the radiation dose for each of them shall not exceed 20mSv per year.

c. Radiation dose management

Each JRCS responder’s radiation dose exposed during his/her activity period shall be managed.

The JRCS shall manage each responder’s activity through the radiation dose management to allow his/her radiation dose to fall within the acceptable risk range per year, if he/she provides activities in a relatively high ambient radiation dose area in a short period of time. If the radiation dose of a JRCS responder could exceed the JRCS safety standards, the JRCS relief team shall discontinue relief activities. In that case, the JRCS shall arrange a replacement team in order to maintain the JRCS relief activities in the affected area.

For JRCS responders who continue to provide activities in the area, their radiation dose

management will be needed on a continued basis, in consideration of their radiation doses exposed in their daily lives as well.

Annotation:

This section explains the importance of radiation dose management in reducing risks for the JRCS responders. It is about continuing JRCS relief activities by managing personal radiation dose appropriately and replacing the responders or teams.

For JRCS responders who continue their activities in an affected area, the JRCS will continue to discuss their radiation dose management as one of the challenges to be considered.

(2) Arrangements for securing the safety of JRCS responders

Annotation:

This section describes an organizational structure to secure the safety of JRCS responders during a nuclear disaster.

1) Deployment of radiation emergency medical care advisors

For safe and appropriate relief activities in a radiological environment, [radiation emergency medical care advisors^{V-8}](#), consisting of a radiological expert (physician) and a radiological support member (radiological technologist), shall be deployed at the JRCS chapter HDC in an affected area and the JRCS HQ HDC. Based on the advice from the radiation emergency medical care advisors, the JRCS chapter HDC in the affected area shall decide on how they should provide their activities, and manage the JRCS responders' radiation exposure status, taking into account their radiation exposure possibilities.

Annotation:

Radiation emergency medical care advisors will be deployed to both the JRCS chapter HDC in an affected area and the JRCS HQ HDC. Based on advice from the advisors, the JRCS chapter HDC will decide on a policy for relief team deployment in the affected area; this is to allow the radiation doses of JRCS responders to be managed during their relief activities in a radiological environment and the responders to provide activities safely and appropriately.

The radiation emergency medical care advisors also play a role of managing the safety of JRCS responders. Specifically, the advisors carry out radiation dose management of the responders while they are providing relief activities, interviewing with them after their activities, body contamination screening if necessary, and follow-up after their dispatches are finished. These roles are described also in the “Manual for Relief Activities under Nuclear Disasters”.

2) [Briefing and education of JRCS responders](#)^{v.-9}

JRCS responders shall be educated about health risks from radiation and methods to protect themselves from radiation during the Preparedness Phase. In addition, the responders shall be well briefed about such risks and methods again before starting relief activities during the Emergency Response Phase.

Annotation:

For the safety of JRCS responders engaging in activities in an affected area, the responders need to understand the risks of health problems from radiation and conduct relief activities with knowledge for radiation protection in order to defend themselves from radiation effects.

During the Preparedness Phase, the JRCS will educate the JRCS staff thoroughly about radiation including a provision of the “Nuclear Disaster Response Basic Training Session” to them. During the Emergency Response Phase, the staff will be well informed of the risks and radiation protection in a briefing at their local chapters or JRC hospitals before leaving for the affected area. They will also be in a briefing before starting activities in the affected area under the command of the JRCS chapter’s HDC.

3) *Awareness of ambient radiation dose in activity areas and radiation protection for JRCS responders*

Radiation protection equipment and materials stored at a JRCS chapter and facilities in an affected area shall be used by JRCS relief teams, etc. of the affected area. JRCS relief teams, etc. to be dispatched from non-affected areas shall bring necessary radiation protection equipment and materials with them from their own chapters or facilities. The equipment and materials such as personal dosimeters need to be checked if they work properly.

Personal radiation dose shall be measured by using a personal dosimeter. Measurement of ambient radiation dose rate in the activity areas or body contamination screening after providing relief activities each day shall be considered, if necessary.

Annotation:

When JRCS responders conduct relief activities during a nuclear disaster, each of them is required to be always aware of his/her personal radiation dose.

The responders take equipment and materials for radiation protection, which are deployed at their chapters or hospitals, to an affected area. Each chapter and hospital should properly manage the measuring equipment during the Preparedness Phase and make sure to check if the equipment works before the responders leave for the affected area.

To provide relief activities safely, it is important to be aware of the ambient dose rate in JRCS activity area and medically examine the responders after their activities. Since measurement of the ambient dose rate and body contamination screening require special knowledge and skills, radiological technologists do the measuring and screening.

*4) Dispatch of JRCS relief teams, etc. from JRCS chapters and facilities across the country
In order to minimize health effects from radiation, it is necessary for each JRCS responder to avoid exposure to radiation as much as possible. The JRCS shall mobilize JRCS relief teams across the country and provide relief activities in rotation to ensure the safety of each JRCS relief team member. By taking this measure, the JRCS shall minimize radiation dose exposed to each member.*

Annotation:

One of the characteristics of nuclear disasters is prolonged evacuation. Therefore, continuous relief activities are necessary. The JRCS dispatches relief team members from JRCS chapters and hospitals across Japan to conduct relief activities by replacing relief team members or teams. This reduces personal radiation dose of each relief team member to the minimum level and makes the continued assistance to the affected people possible. This long-term assistance is one of the strengths of the JRCS organizational capacity.

5) *Each JRCS relief team to be accompanied by a radiological technologist*

A radiological technologist shall accompany each JRCS relief team. The radiological technologist shall make use of his/her knowledge about radiation to give radiation protection advice to the relief team leader and remove the relief team members' anxieties while providing activities.

Annotation:

The JRCS secures the safety of JRCS relief team members during a nuclear disaster by getting a radiological technologist with knowledge about radiation to accompany each JRCS relief team. During the relief activities soon after the Fukushima Daiichi accident, the relief teams with a radiological technologist were correctly advised of how to use radiation measuring devices and radiation protective equipment and materials by the radiological technologists.

5. Considerations in evacuating to a safe place

(1) Course of action

If it is expected or decided while providing relief activities that the continuation of JRCS relief activities according to the safety standards mentioned in the previous section will be difficult due to orders issued by the Japanese government, etc. or a sudden increase in ambient radiation dose rate in the activity areas, the JRCS relief team leader shall discontinue the team's activities and evacuate the relief team members to a safe place to secure their safety.

Annotation:

This section describes a course of action for evacuating to safe places when the activities in the deployed area become difficult.

(2) Considerations for each activity place

1) First aid stations

If first aid stations where medical relief is provided by JRCS relief teams are included in restricted areas, etc., the teams shall leave the first aid station as a general rule.

Public authorities are in charge of evacuating residents. However, the JRCS shall cooperate with the public authorities in evacuating residents as much as possible.

Annotation:

JRCS relief teams may have to make a difficult decision while conducting relief activities in an affected area. The JRCS relief teams will leave the deployed area as a general rule if the area is included in a restricted area, etc.

The JRCS's course of action for providing activities within restricted areas, etc. will continue to be discussed as one of the challenges to be considered.

2) JRC facilities

If JRCS chapters or JRC facilities find it difficult to continue their operations, they shall respond to the situation according to their business continuity plans and evacuation plans, etc.

The facilities concerned shall collaborate closely with public authorities in terms of assistance in transportation, etc. At the same time, cooperation shall be facilitated within the JRCS in regards to the dispatch of necessary responders to the affected facilities.

Annotation:

For evacuation of JRC facilities, JRCS-wide support arrangements will be considered. For example, dispatching specialists and staff from other JRC facilities, sharing supplies and transferring of patients will be considered.

VI. Recovery

1. Definition and positioning of Recovery

The Recovery Phase is defined as an activity phase where things destroyed by a nuclear disaster should be recovered to their pre-disaster state by taking into consideration resolution of problems which existed in a community before the disaster.

Annotation:

During the “Recovery Phase” (II. Purpose and scope, 2. Scope, (3) Definition of “phases”), it is important to develop JRCS assistance activities with awareness of problems that the affected area had before the onset of a disaster and from a viewpoint of what the JRCS can do for recovery of the area.

This chapter describes JRCS relief activities during the Recovery Phase.

2. JRCS activities

(1) Course of action

The public authorities will lead recovery activities in the affected areas. During this phase, the JRCS shall provide complementary assistance particularly in terms of rebuilding lives, education, social welfare services and medical care infrastructure.

Annotation:

Recovery of an affected area is led by the national and local governments. JRCS recovery assistance activities are about complementing the public authorities’ activities in fields such as continuous organizational assistance by utilizing the JRCS network, which is a field where the JRCS can take advantage of its strengths.

(2) Target populations and content of activities

The conditions to respond to recovery greatly depend on the scale, characteristics, areas and phases, etc. of a nuclear disaster. For this reason, it is necessary to be flexible in providing assistance by looking into the needs in the affected areas.

Annotation:

The JRCS tries to provide timely assistance by understanding needs of affected populations, with the following points in mind: the scale of a nuclear disaster; the characteristics of areas in need of assistance; and the changing needs of the affected

populations during prolonged evacuation.

1) Target populations

The target populations are affected populations whose health and lives, etc. have been impacted by a nuclear disaster and in need of assistance in the process of recovery. Special attention shall be paid to vulnerable affected populations, etc. such as people requiring special consideration.

The JRCS shall provide the same assistance to affected populations evacuated outside of the affected prefecture as much as possible.

Annotation:

This section explains the target populations for JRCS activities during the Recovery Phase. As mentioned in “III. Considerations during activities”, people requiring special consideration have various problems while they are evacuated. Therefore, JRCS need to develop activities by paying attention to their problems.

Furthermore, as mentioned in “V. Emergency Response”, a nuclear disaster is expected to cause a mass evacuation in a wide area. For the affected people who have evacuated to outside of the affected prefecture to receive JRCS services, the JRCS needs to prepare organizational arrangements.

2) Content of activities

The JRCS shall provide assistance activities mainly by using JRCS manpower, etc. according to affected populations’ needs for assistance as the JRCS does in the event of natural disasters.

Annotation:

The JRCS takes advantage of its knowhow and strengths which have been developed as a humanitarian assistance organization in order to provide assistance according to the needs of affected people mainly through the human resources such as staff of JRCS chapters and facilities and Red Cross volunteers.

a. Health maintenance assistance for evacuees

As evacuation is prolonged, family members may have to live separately. This could increase affected populations' isolation, stress from anxieties and risks of developing disuse syndrome and life-style related diseases. These risks could be seen more in elderly evacuees. In order to prevent diseases including disuse syndrome from developing, the JRCS may be able to provide assistance.

In addition, the JRCS may be able to provide effective activities for affected populations who suffer from stress by making use of the knowhow that the JRCS has gained through experience from Red Cross Healthy Life Course, etc.

Activity examples:

- [Red Cross Health Class in a meeting room located within temporary housing premises](#) ^{VI-1*},
- [Visiting evacuees living in temporary housing](#) ^{VI-2*};
- *Dispatching caregivers, etc. to social welfare facilities for elderly people;*
- *Health assistance ([interviewing evacuees to identify their health conditions and assistance needs, and health consultation at a JRCS public health room](#)^{VI-3}) by JRCS nurses to evacuees living in rental houses rented by local governments*;*
- *Prevention of internal exposure by food intake, and alleviation of people's anxiety. (e.g. [provision of food radiation measurement equipment, etc.](#)^{VI-4})**

Annotation:

As evacuation is prolonged, evacuees will have few opportunities for exercise or may suffer from stress. This could result in development of disuse syndrome which weakens physical and mental functions or lifestyle-related diseases. Lifestyle-related diseases are a general term of diseases such as hypertension, hyperlipemia, diabetes and obesity, whose development and progress are deeply related to lifestyles. Disuse syndrome is a general term of diseases which lower the general functions due to inactive lifestyle.

The JRCS has organized and held lectures for the public, where they can gain knowledge and skills about: health enhancement and prevention/care of accidents seen more in elderly people; assistance for the elderly in communities; and nursing aimed at elderly people's independence in their daily lives. By taking advantage of the

knowhow, the JRCS supports affected people's health maintenance and enhancement through health classes and door-to-door visits.

In addition, the JRCS has many medical staff members such as nurses and caregivers and also volunteers, and will send them to medical and welfare facilities to maintain their facility functions if the whole hospital or facility evacuates.

b. Cooperation in health surveys conducted on a regular/continued basis

Late health effects from low-level radiation may occur. Therefore, regular and continuous medical examinations and long-term tracking surveys will be needed. For health management and identification of health effects from low-level radiation exposure, health surveys and hearing surveys including behavioral records will be required. The JRCS may be able to provide physical and material support in the implementation of these regular and continuous health surveys.

Activity examples:

- *Cooperation by JRC hospitals with local governments in health surveys for affected populations*;*
- *Cooperation in preparing equipment needed for continuous health surveys. (e.g. [provision of medical equipment such as whole-body counters and thyroid detectors^{VI.-5.6}](#))**

Annotation:

The public authorities may conduct health surveys for the purposes of assessment of radiation dose of residents, awareness of their health conditions and prevention/early detection/early treatment of diseases. The JRCS gives complementary support to the public authorities for such health surveys.

c. Assistance in maintaining pre-evacuation communities

As evacuation is prolonged and affected populations are evacuated in a wider area, their pre-disaster communities may be divided and the affected populations may feel a sense of loss. In addition, since the affected populations may leave their communities for other locations, there will be a need to maintain the communities. The JRCS may be able to provide assistance in order to maintain their communities which are divided by the evacuations.

Activity examples:

- [Assistance in organizing reunion parties for affected populations who had to evacuate their communities that were designated as restricted areas, etc. and live in other places](#)^{VI.-7*};
- [Providing hot meals by Red Cross Volunteers Corps](#)^{VI.-8}. (e.g. cooking local foods of evacuees)*

Annotation:

Maintaining pre-disaster communities which are the affected people's basis for their lives is important as their heart and soul and in terms of their mutual-aid. The JRCS chapters and Red Cross volunteers organize and hold parties and events in order to assist maintaining their pre-disaster communities.

d. Provision of assistance to areas which accepted affected populations evacuated from other areas

A nuclear disaster causes a large number of evacuees. Local governments accepting evacuees from other areas may face difficulties in responding to them with the existing infrastructure, because there may be lack of capacities. The JRCS may be able to provide assistance to local governments and public organizations so that both the evacuees and local citizens can live comfortably.

Activity examples:

- Support for preparing learning environment; (e.g. [provision of dishes and meal delivery trucks, etc. to resume school meals](#)^{VI.-9}; and [support for school bus operations](#)^{VI.-10})*
- Support for complementary transportation means; (e.g. [support for community bus operations](#)^{VI.-11})*
- Support for social welfare facilities to recover their functions. (e.g. providing [nursing beds](#)^{VI.-12} and [social welfare vehicles](#)^{VI.-13})*

Annotation:

Local municipalities who have accepted many evacuees from an affected area will run short of their capacities and capabilities within their existing infrastructure. Due to this, sufficient assistance will not reach the evacuees, and the local people will have

inconveniences. On the other hand, local municipalities of the affected area have limitations in assisting their residents who have evacuated over a wide area.

The JRCS will consider conducting activities to reduce inconveniences of the citizens in the areas who have accepted the affected people by cooperating with the related local municipalities and public institutions to support the affected people.

e. Community forming in evacuation locations

Affected populations are expected to evacuate to areas with a relatively low radiation level or outside of affected areas. The evacuees will feel physical and psychological stress caused by living in new communities, because they are away from their home communities. The JRCS may be able to provide opportunities for them to become familiar with lives and people in their evacuation locations.

Activity examples:

- Providing opportunities for evacuees to form a community in temporary housing*;*
- Providing opportunities by Red Cross Volunteer Corps for evacuees and local citizens to communicate with each other*;*
- Providing opportunities through Junior Red Cross activities for exchange between children who live under evacuation conditions and local children*.*

Annotation:

This section describes the physical and mental stress of affected people who live in unfamiliar places and JRCS's assistance to remove the stress.

In temporary housing and private rental housing rented by local governments for the affected people, residents there do not know each other because the living environment is new to them. The affected people may be confused at living there and be reluctant to go out.

To solve such situation, the JRCS will assist forming a new community by setting opportunities to promote conversations among the new residents and exchange between them and local people in the area to make it easier for them to join the new community.

f. Reducing affected populations' stress

Affected populations have anxiety and stress from possible health effects caused by prolonged evacuation and exposure to radiation. Reducing their stress will be required. It is said that children may have greater risks from radiation exposure, and the anxieties and stress could increase among families with children.

The JRCS may be able to provide assistance in reducing the affected populations' psychological stress by communicating with them and listening to them, etc. Depending on the symptoms, the JRCS shall respond to the affected populations' anxieties and stress in cooperation with public health nurses, clinical psychologists and physicians.

Activity examples:

- *Providing mother-and-child health classes*;*
- *[Organizing and holding events for affected populations^{VI.-14*}](#);*
- *Providing mobile psychosocial care at community centers, etc.*

Annotation:

This section describes JRCS activities to reduce stress of affected people caused by anxieties of health problems from a long-term evacuation and radiation effects.

The JRCS chapter staff and Red Cross Volunteer Corps will assist in reducing the affected people's stress by communicating with them through door-to-door visits and holding events for them at temporary housing, etc.

As mentioned in "III. Considerations during activities", the JRCS will provide psychosocial care activities in collaboration with specialized organizations.

g. Organizing events, etc. for children

Due to prolonged evacuation and effects from a nuclear accident, children could feel anxiety and stress, and could be also psychologically impacted by other family members and adults who suffer stress from changes in their living environment. Therefore, children will need opportunities to release their stress and act positively for their futures. The JRCS may be able to provide assistance by utilizing the knowhow of Junior Red Cross activities and the JRCS human network.

Activity examples:

- [Providing indoor playgrounds^{VI.-15*}](#);
- [Organizing after-school classes and summer camps^{VI.-16*}](#);
- [Support for events at nursery schools, kindergartens, elementary schools, junior high schools and high schools, etc^{VI.-17*}](#).

Annotation:

This section describes the necessity of assistance to children among the people requiring special consideration.

After the Fukushima Daiichi accident, children could not go out for a long time depending on the areas. Physical education classes and after-school activities were limited particularly in the areas of high radiation level.

Children who continue to live in areas with remaining effects from a nuclear accident may have limitations in outdoor activities according to decisions made by adults and may have stress from changes in living environments due to evacuation.

If the situation continues, it is expected that children's health risks such as obesity due to lack of exercise and accumulated stress may be increased or they may lose healthy opportunities for studying and learning.

The JRCS will assist in children's health enhancement by organizing events and outdoor school programs by taking advantage of its JRC (Junior Red Cross) knowhow.

h. Assistance in a temporary entry program to restricted areas, etc.

During prolonged evacuation, public authorities implement a temporary entry program for affected populations who have evacuated from restricted areas. The program allows them to enter these areas temporarily. The program is an opportunity for the affected populations to return to their homes, and it will be required to prepare an environment where many of the affected populations including the elderly are able to participate in the program. The JRCS may be able to provide assistance for this program.

Activity examples:

- [Providing medical relief activities at first aid stations set up at temporary entry points](#)
[VI-18](#)*

Annotation:

This section describes assistance activities by JRCS relief teams during temporary entry to evacuation order areas for affected people.

Many affected individuals are expected to come at entry points. Therefore, the JRCS will assist the temporary entry by setting up first aid stations there to give medical relief to people who get sick.

The JRCS will consider creating internal arrangements as one of the new JRCS's roles to dispatch its radiological technologists to affected areas in case of being requested by the public authorities for body contamination screening support.

i. Assistance in rebuilding infrastructure after return to pre-disaster areas

After designation of restricted areas is lifted, it will be required that affected populations are able to lead their lives as they did before a nuclear disaster. The JRCS may be able to provide assistance for the affected populations to rebuild their lives.

Activity examples:

- *Support for building and improving preschool and school environments; (e.g. support for [provision of indoor playgrounds](#)^{VI-19}; [provision of new computers, audio-visual equipment and school meal equipment](#)^{VI-20})**
- *[Support for recovery of local industries](#)^{VI-21};*
- *Providing mobile clinics until community medical services are restored.*

Annotation:

Assistance in rebuilding infrastructure referred to in this section is about equipment and services regarding medical care, social welfare and education. One of the assumed examples is that the JRCS provides mobile clinic services at individual homes and community centers, etc. until community medical services are restored after residents have returned to pre-disaster areas.

VII. Activities outside Japan

If the JRCS provides assistance in the event of a nuclear disaster outside Japan, the JRCS shall follow the IFRC's framework for disaster relief.

As a Red Cross National Society which experienced response to a nuclear disaster, the JRCS is expected to share its experiences and lessons learned from the Fukushima Daiichi accident with its sister Red Cross and Red Crescent Societies to contribute to nuclear disaster preparedness of the Red Cross and Red Crescent Movement.

The specific support activities shall be considered within [the framework of the Red Cross activities by the IFRC^{VII.-1}](#).

Activity examples:

- Information gathering/provision mainly about how the JRCS responded to the Fukushima Daiichi accident;*
- Assistance to sister Red Cross and Red Crescent Societies in developing guidelines and manuals, and development of human resources;*
- Providing equipment and materials or dispatching experts to affected countries in the event of a nuclear disaster.*

Annotation:

This chapter describes JRCS assistance in the event of a nuclear disaster outside Japan.

Radiation damage may spread to a wider area across national borders. If that happens, there will be a wide range of effects. Therefore, the challenge of tackling nuclear disasters should be addressed internationally. As a Red Cross National Society whose country is the sole country in the world that experienced both atomic bombing and a nuclear accident, the JRCS thinks that it is responsible for disseminating findings of Hiroshima, Nagasaki and Fukushima and contributing to the international community in collaboration with the IFRC in discussing assistance and support for each phase.

VIII. Way forward

The primary purpose for creating the Guidelines is to prepare the JRCS's course of action for possible future nuclear disasters based on the lessons learned from the experience of the Fukushima Daiichi accident that followed the Great East Japan Earthquake and Tsunami. It is assumed that each JRCS HQ department, JRC hospital and facility think about its specific activities based on the Guidelines and establish the activities as internal rules. In that case, it is expected that these departments, JRC hospitals and facilities will do so in accordance with the purpose and content of the Guidelines and their particular circumstances and conditions.

Based on the JRCS activities conducted in Fukushima Prefecture and the local conditions, etc., the Guidelines describe JRCS activities to the extent that the JRCS can set at present. The JRCS activities in Fukushima are still ongoing and the local conditions have been changing over time. In addition, challenges which should be considered are believed to be related not only to the Red Cross but also many other organizations. Thus, some challenges were unable to be included in the Guidelines and were compiled as Challenges for Consideration, which will be discussed within and outside of the JRCS. Solutions will then be considered based on knowledge and opinions of related sections and responders within and outside of the JRCS. The outcomes of these considerations will be included in the Guidelines.

The Japanese government and local governments are also considering how to respond to nuclear disasters. As the social conditions and environment change over time, the government's framework and the roles expected of the JRCS are assumed to change. The Guidelines shall be reviewed on a continued basis and revised accordingly.

Annotation:

There are following three things that the JRCS will start working on for the Guidelines:

- 1) Practical realization of the Guidelines based on its concept;**
- 2) Solving the challenges which were found to be necessary for consideration in the process of creating the Guidelines, and reflecting the solutions of the challenges in the Guidelines;**
- 3) Reviewing the Guidelines in accordance with changes in the government's policy and JRCS roles.**