

Activities of the Japan Health Physics Society

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Introduction



AOARP
Asian and Oceanic Association
for Radiation Protection

- The Japan Health Physics Society (JHPS) was established in 1961 and joined the International Radiation Protection Association (IRPA) in 1965.
- Member of Asian and Oceanic Association for Radiation Protection (AOARP) since 2000.
- JHPS has a membership of about 700, including professors, medical professionals, research scientists, engineers, regulators, students and citizens.
- In addition to the annual meeting and symposia, other activities related to **research, investigation** and establishing standards, etc. are carried out by JHPS.

Activity for research and investigation (1/2)

- For research and investigation, JHPS has two types of group, named **Ad-hoc committee** (臨時委員会) and **Research group**(専門研究会).
- **Ad-hoc group** is led by a top-down approach (initiated by the board of directors), to investigate and responding to a specific topic.
 - ✓ (active) Review Committee on Awareness and Practice of Radiation Safety Culture
 - ✓ **Emergency Monitoring Review Committee**
 - (past activities) Plutonium Contamination Accident WG, Effective Dose and Practical Dosimetry Committee, National Dosimetry Committee, National Dosimetry Committee, Low Dose Risk Committee (Joint Committee with the Japanese Radiation Research Society), ...



Activity for research and investigation (2/2)

- **Research group** (Task group) is led by a bottom-up approach (initiated by member(s)), to investigate and responding to a specific topic.
 - ✓ (active) **Radiation Protection of Tritium in the Environment**
 - ✓ Ensuring Reliability of Measurements for Radiation Control Purposes in RI Facilities
 - ✓ Handling of wastes containing naturally occurring radioactive materials from humanities and social sciences viewpoints
 - ✓ Development of a code for estimating cancer risk associated with radiation exposure
 - ✓ (past activities) ...



Emergency Monitoring Review Committee (Ado-hoc committee)

- The development of an emergency monitoring system in Japan that reflects the lessons learned from the Fukushima accident is of utmost importance in the current situation where nuclear power plants are being restarted.
- The Committee treats the establishment of a screening system for monitoring the thyroid gland of children and pregnant women for radioactive iodine, and a system for prompt and easy-to-understand communication of emergency monitoring information.

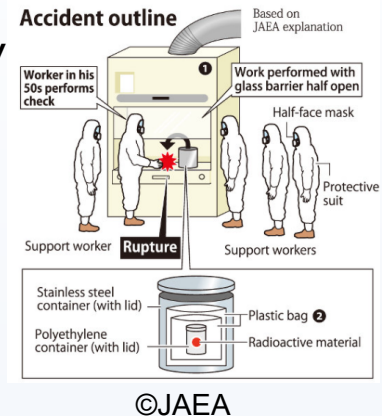


<https://www.nsr.go.jp/data/000330772.pdf>

Past activities (Ad-hoc committee)

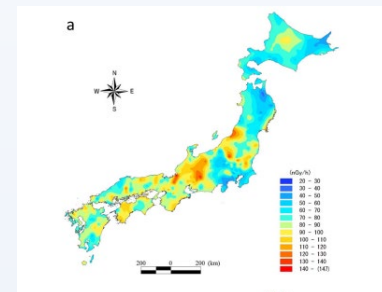
➤ Plutonium intake accident

- The accident was occurred at the Plutonium Fuel Facility of the Oarai Research and Development Center of JAEA on 6 June 2017.
- This committee surveyed issues and extracted lessons for radiological protection (Iwai et al 2019 J. Radiol. Prot. 39 1092).



➤ Japanese Population Dose Estimation

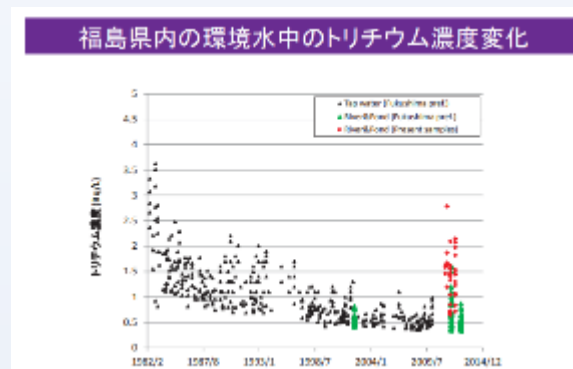
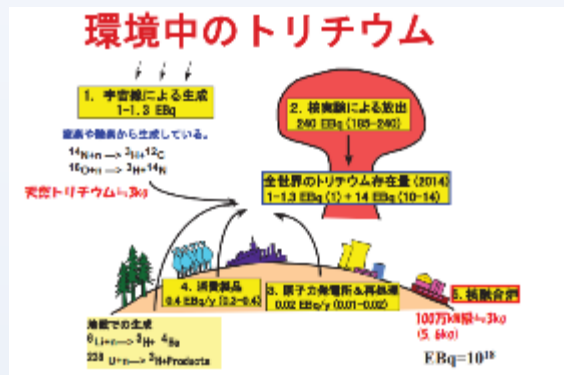
- The radiation doses from natural radiation sources in Japan are reviewed using the latest knowledge.
- It was concluded that the arithmetic mean annual effective doses from cosmic rays, terrestrial radiation, radon, and foodstuffs were estimated as 0.29, 0.33, 0.59, and 0.99 mSv, respectively (Japanese population dose from natural radiation is 2.2 mSv) (Omori et al 2020 J. Radiol. Prot. 40(3) R99–R140).



Furukawa and Shingaki(2012)

Radiation Protection of Tritium in the Environment (Research group)

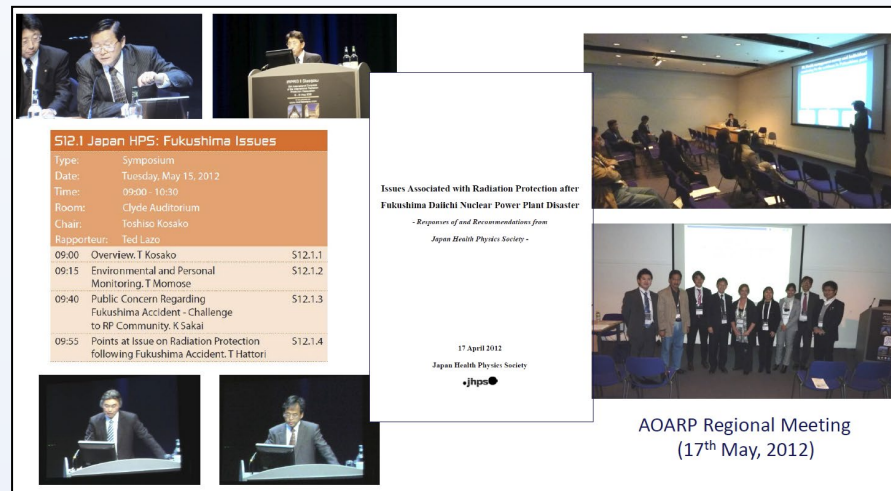
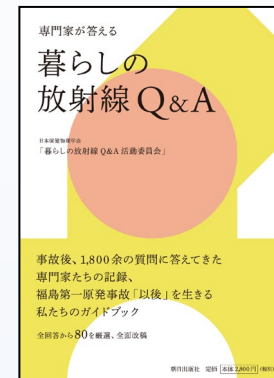
- Contaminated water from the TEPCO's Fukushima Daiichi Nuclear Power Plant is treated with a multinuclear removal, but only tritium cannot be removed. This is a matter of growing social concern.
- The purpose of this group is to summarize the basic knowledge on the properties of tritium, its behavior in the environment, and its analysis methods, and to clarify the role of JHPS in solving the problems related to tritium, and to discuss realistic approaches in accordance with the system of radiation protection.



<https://fukushima.jaea.go.jp/info/pdf/20140311.pdf>

Activities of JHPS related to the accident

- JHPS set up a working group to deal with radiation-related Q&A and communicated through its website.
- “Issues and Recommendations Associated with Radiation Protection after Fukushima Daiichi Nuclear Power Plant Disaster”
- Presentation at the IRPA-13 congress (Glasgow on May 2012).



Issues and Recommendations Associated with Radiation Protection after Fukushima Daiichi Nuclear Power Plant Disaster

- Comprehensive recommendations on radiological protection by reviewing how radiological protection measures after an accident should be carried out on the basis of concrete facts clearly described in the investigative reports and opinions collected at the JHPS symposia.
- **P158: Communication to the public – response to foreign residents and overseas countries**
- Available at http://www.jhps.or.jp/jhp/wp-content/uploads/2014/12/JHPS-issues_and_recommendationsrecom.pdf



JHPS annual meeting in 2020 (Osaka, web)

How should we solve the tritium problem? ~Radiation Protection from International and Social Perspectives

Issue of scientific safety

1. The safety of the release of treated water containing tritium into the environment has been evaluated from various angles, but it is necessary to continue to confirm the safety through steady monitoring.
2. Safety is a matter of trust, and for this reason, it is necessary for experts to play their roles faithfully.

3. Dissemination of primary data and information is important in terms of trust, and collaboration with scientists and communicators is necessary.



<https://www.biowings.eu/news/dissemination/>

4. From the perspective of foreign countries, the Japanese government is not sufficiently providing more detailed information such as impact assessment, detailed action plans, and monitoring plans.

Web meeting

- Webinar is a useful tool for communicating with people overseas.
- Webinar hosted by KARP, followed by a Zoom meeting with the board of directors (3/11, 4/16)
- Discussion on information sharing during and after emergency situation.
- Continuing communication (activities of research groups), opening a contact point, involving other Societies, ...



대한방사선방어학회-일본보건물리학회 공동 심포지움

후쿠시마 10년, 그 교훈과 방사선 환경영향
(Fukushima 10 years- Lessons Learned and Radiological Environmental Impact)

2021년 3월 11일(목) 14:00-18:35
ZOOM을 통한 **현업 실시간** 온라인 실시간 진행

ZOOM 과상회의 링크 (출석 및 재진 링크):
회의 ID / PW: 추후 등록자 개별 안내

대한방사선방어학회 (KARP)는 일본보건물리학회 (JHPS)와 공동으로 후쿠시마 특별 심포지움을 개최합니다. 후쿠시마 원전 사고 후 10년간의 경험과 교훈, 그리고 방사선 환경영향을 오직 과학적인 시각으로 토론합니다.

시 간	주 제 및 발표자
14:00-14:05 (준행사) 김교준 격회장 (대한방사선방어학회)	
[의견] Makoto Hashimoto 박사 (IAEA), 김희영 교수 (UNIST)	
1. 방사선 재난 대응: 그 교훈	이재기 교수 (방사선안전문화연구소장)
2. 후쿠시마 사고 후 대규모 환경방사선 감시	Satoshi Mikami 박사 (IAEA)
14:05-17:00 3. 후쿠시마 사고 후 갑상선 선량평가	Masahiro Hosoda 박사 (Hirosaki 대학)
4. 후쿠시마 일진 주변 주민 복귀 진후의 환경 방사선 준비 및 주민의 피폭 방사선량 평가	Yusuyuki Taira 교수 (Nagasaki 대학)
5. 방사선 공포증	김건욱 교수 (서울의대 핵의학교실, ICRP)
[의견] 이희석 박사 (KARP 부회장), Takeshi Himoto 교수 (JHPS 부회장)	
[패널토론] 후쿠시마 사고에서 배운 교훈	(KARP 패널) 안준욱 교수 (KAMIS)
17:00-18:30 그리고 KARP-JHPS 의 협우 협력 방안	이재기 교수 김건욱 교수
(간담대안 상황에서 정보 공유 방안)	(JHPS 패널) Michiaki Kai 교수 (Oita 대학, NHS)
1) 발표 1: 안준욱 교수	Hiroko Yoshida 교수 (Tohoku 대학, IRP)
2) 발표 2: Masahiro Hosoda 박사	Masahiro Hosoda 박사
18:30-18:35 (폐회사) Michiaki Kai 축회말 (일본보건물리학회)	

[문의] 대한방사선방어학회 사무국(webmaster@karp.or.kr, 02-2297-9775)
URL: www.karp.or.kr



Panel discussion

Progress of decommissioning and treated water, monitoring and tritium concentration, concerns in Korea, activities of JHPS.

1. How should we share the relevant information on decommissioning at Fukushima Daiichi NPS with each other for better communication?
福島第一原子力発電所の廃炉に関する関連情報をどのように共有すれば、より良いコミュニケーションができるか？
2. What is expected regarding the role of RP experts?
RP専門家の役割について期待することは？

Panelist:

Hiroko Yoshida (JHPS, Tohoku Univ.)

Junichi Matsumoto (TEPCO)

Michio Aoyama (University of Tsukuba)

Michiaki Kai (JHPS, Nippon Bunri Univ.)

Yong Hoon Jeong (KARP, KAIST)

Kyo-Youn Kim (KARP President, KAERI)

Hee-Seock Lee (KARP Vice President, PAL/POSTECH)