

Online International Symposium

Growing Plutonium Stockpiles and the Rokkasho Reprocessing Plant

Reality of Nuclear Fuel Cycle and Security in East Asia

DAY 1 : Dec.18 Sat 6:00-8:30PM (JST)

DAY 2 : Dec.19 Sun 9:00-11:30AM (JST)

The Rokkasho Reprocessing Plant, currently under construction in Aomori Prefecture, is scheduled to be completed in 2022. The Japanese government has adopted a closed nuclear fuel cycle policy to extract plutonium from spent nuclear fuel and use it repeatedly: reprocessing is a core part of this cycle. However, the Rokkasho plant is far from eligible to start commercial operation, for facing a number of serious problems regarding nuclear non-proliferation, economic rationality, and safety.

Through previous reprocessing activities, Japan has accumulated more than 46 tons of plutonium— enough to make more than 5,000 nuclear warheads—both at home and abroad. This is because the fast breeder reactor (FBR) cycle was aborted and the pluthermal (plutonium thermal use) program has faced challenges. Accordingly, only about 1.7 tons of plutonium have been consumed in the last five years.

The Rokkasho reprocessing plant has the capacity to extract 7 to 8 tons of plutonium per year. Considering the uncertain prospects for plutonium consumption, Japan has little reason to extract more of it, and starting the operation of the plant can be justified from neither economic nor nuclear non-proliferation standpoints. In East Asia, in addition to Japan, South Korea and China are also moving forward with reprocessing projects, and there are growing concerns for the increasing plutonium stockpile in this region.

Construction of the Rokkasho reprocessing plant started in 1993 yet the completion of the plant has been postponed 25 times due to a series of problems such as insufficient countermeasures against accidents and inability to properly solidify the high-level liquid waste generated during reprocessing. The total cost of the project, including the reprocessing and MOX fuel fabrication plant, is reported to be 17 trillion yen (170 billion dollars) or more.

The problems of Japan's nuclear fuel cycle policy, long concerned by experts and other parties involved in Japan and abroad, are evidently becoming more serious. We should thus need to face the reality of the policy and question whether it is necessary to extract plutonium. Based on this awareness, we will hold a 2-day online international symposium ***Growing Plutonium Stockpiles and the Rokkasho Reprocessing Plant: Reality of Nuclear Fuel Cycle and Security in East Asia*** to discuss the validity of starting the commercial operation of the Rokkasho Reprocessing Plant as well as the security risks posed by the increasing plutonium stockpile, from both local and global perspectives.

Program

DAY 1: December 18 (Sat) 6:00 - 8:30 PM (JST)

“The Reality of the Nuclear Fuel Cycle: The British and German Experiences and the Rokkasho Reprocessing Plant”

■ Presentations

- **“16 years later’s Re-reviewing the International Critical Review Committee on the Long-Term Nuclear Program (ICRC) - What has changed and what has not changed?”**, Tetsunari Iida, Director, Institute for Sustainable Energy Policies (ISEP)
- **“The Nuclear Fuel Cycle and Aomori Prefecture”**, Hiroshi Shikanai, Member of the Aomori Prefectural Assembly, former Mayor of Aomori City
- **“The UK Experience: Reprocessing to extract plutonium; creating high level liquid radioactive waste and contamination”**, Paul Brown, Journalist
- **“The German Experience: Reprocessing-exit and Energy Shift”**, Nina Scheer, Member of Bundestag, Social Democratic Party (SPD)

■ Plenary Discussion

“Questioning the Start of Operation of Rokkasho Reprocessing Plant”

Day 2: December 19 (Sun) 9:00 - 11:30 AM (JST)

“Increasing Plutonium and the Security of East Asia”

■ Presentations

- **“Security Implications of Plutonium Stockpiles in Asia and Beyond”**, Sharon Squassoni, Research Professor, George Washington University
- **“Pyroprocessing in South Korea”**, Jungmin Kang, Independent Consult, former Chairperson of South Korea Nuclear Safety and Security Commission
- **“China's Plutonium Recycling Programs”**, Hui Zhang, Senior Research Associate, Project on Managing the Atom, Harvard University
- **“Japan's Plutonium Policy: Lost in the Dark”**, Tatsujiro Suzuki, Vice Director, Research Center for Nuclear Weapons Abolition (RECNA), Nagasaki University

■ Plenary Discussion

“How to Control the Horizontal and Vertical Proliferation of Plutonium”

Speakers



Tetsunari Iida

Tetsunari Iida is a leading authority and opinion leader in Japan in the energy policy field, including nuclear and especially renewable energy policy, and known as a "Social Innovator". Studied nuclear engineering master school at Kyoto University, then worked in the nuclear industry. Stopped the nuclear career, studied the history and politics of energy transition as well as the sustainable energy policies at Lund University with a lot of field studies.

Founded Institute for Sustainable Energy Policies (ISEP), a Non-profit and Independent institute in 2000 to pursue "energy democracy", that goal should be sustainable energy society through democratic and bottom-up process, and has served as chairperson to date.



Hiroshi Shikanai

Hiroshi Shikanai is a Member of the Aomori Prefectural Assembly since 2019. From 2009 to 2016, he was Mayor of Aomori City. Prior to that, he was a Member of the Aomori City Assembly (1982-1991) and a Member of the Aomori Prefectural Assembly (1991-2009). As of now, Hiroshi Shikanai is also a Member of Construction Committee and a Member of Nuclear and Energy Special Task Committee of Aomori Prefecture.



Paul Brown

Paul Brown has been a journalist all his working life, including 25 years at The Guardian in London 16 of them as environment correspondent. He started reporting on the nuclear industry for the paper in 1983 and has been writing about it ever since. During his career Paul has won awards for investigative and environmental journalism and written ten books. He is a Fellow of Wolfson College, Cambridge and honorary fellow of the Royal Geographical Society.



Nina Scheer

Dr. Nina Scheer is a lawyer, political scientist and musician; since 2013 member of the German Bundestag and expert for environmental protection, climate and energy policy. Her commitment as a proponent of the realization of an energy transition is most recently reflected in the Sozialdemokratischer Energiewende-Appell which she initiated. She has published books on Renewable Energy and trade policy issues. (Photo by Kai Treffan)



Sharon Squassoni

Sharon Squassoni is Research Professor of the Practice of International Affairs at the Elliott School, George Washington University in Washington, DC. She held senior positions at the State Department, Arms Control and Disarmament Agency and the Congressional Research Service before leaving government service to become a scholar at the Carnegie Endowment for International Peace. She led the Proliferation Prevention Program at the Center for Strategic & International Studies from 2010 to 2018. She is on the Science and Security Board of the Bulletin of Atomic Scientists, the PIR Center and the Center for Arms Control and Nonproliferation. Her research, writing and policy-making has focused on reducing risks from nuclear energy and weapons for three decades.



Jungmin Kang

Dr. Jungmin Kang: An independent consultant and South Korea's member of the International Panel on Fissile Materials. Former chairman of South Korea's Nuclear Safety and Security Commission in 2018. Dr. Kang was a senior research fellow in the Nuclear Program at Natural Resources Defense Council (NRDC) in 2015-2017. He holds a Ph.D. in Nuclear Engineering from Tokyo University in Japan and completed his BS and MS in the Nuclear Engineering Department of South Korea's Seoul National University.



Hui Zhang

Hui Zhang is a Senior Research Associate at the Project on Managing the Atom in the Belfer Center for Science and International Affairs at Harvard University's John F. Kennedy School of Government. Hui Zhang is leading a research initiative on China's nuclear policies for the Project on Managing the Atom in the Kennedy School of Government. His researches include verification techniques of nuclear arms control, the control of fissile material, nuclear terrorism, China's nuclear policy, nuclear safeguards and non-proliferation, policy of nuclear fuel cycle and reprocessing.



Tatsujiro Suzuki

Born in 1951. Before joining RECNA, he was a Vice Chairman of Japan Atomic Energy Commission (JAEC) from January 2010 to March 2014. He is a member of Advisory Board of Parliament's Special Committee on Nuclear Energy, a Council Member of Pugwash Conferences on Science and World Affairs, co-chair of International Panel on Fissile Materials (IPFM) and a Board member of Asia Pacific Leadership Network for Nuclear Non-Proliferation and Disarmament (APLN). He has a PhD in nuclear engineering from the University of Tokyo.

Moderator



President of New Diplomacy Initiative (ND), Attorney at Law (Japan/the State of New York). After graduating from Waseda University, she joined a NGO, which included helping out a refugee camp in Tanzania. Since passing the BAR exam in Japan in 2002, she specialized in international human right's law. After receiving her Master's degree from Columbia University Law School, she passed the BAR exam in New York State in 2009. In 2012, she received her second Master's degree in International Relations from American University in Washington, DC. In the past, she has worked with Amnesty International and Human Right Watch.

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For details, please contact;

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