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**International Conference on
Stakeholder Engagement for
Nuclear Power Programmes**

26 – 30 May 2025, Vienna, Austria



Resources

1

The Identification, Diagnosis, Prospective, and Action (IDPA) Method for Facilitating Dialogue between Stakeholders: Application to the Radiological Protection Domain

Lochard, Jacques, et al. (2023). Journal of radiation protection and research, Vol.48(3), p.107-116

Abstract

This article reviews the experience of applying the Identification, Diagnosis, Prospective, and Action (IDPA) facilitating method as a means of promoting practices of dialogue between stakeholders in the radiological protection field. After presenting the characteristics of the IDPA method and its ability to promote active listening, participation, and dialogue among stakeholders facing complex situations, as well as the procedural aspects associated with its practical implementation, the article describes three examples of the application of the method in the field of radiological protection.

2

SHARE: Stakeholder Based Analysis of Research for Decommissioning

Winkler, Robert, et al. (2023). EPJ Nuclear Sciences & Technologies, 2023, Vol.9, p.10, Article 10

Abstract

The 2020 EU-funded SHARE project (Stakeholders- based Analysis of REsearch for Decommissioning) is a forerunner to the establishment of a framework for collaboration on research activities related to the decommissioning of nuclear facilities. SHARE aimed to provide an inclusive roadmap for decommissioning research, in both technical and non-technical areas, in the EU and abroad, to enable stakeholders to improve jointly safety, reduce costs and minimise environmental impact. SHARE has been built on a consultation process considering the needs and perspectives of different stakeholders all across the decommissioning value chain. The project also considered existing and emerging innovative technologies solutions as well as the international best practices in the field of decommissioning. After a three-year process, the project provides a Strategic Research Agenda and a Roadmap built on the participation of the international Stakeholder community in a multi-step process including a questionnaire survey, a state-of-the-art review, a gap analysis and multiple workshops. As the final output, the SHARE roadmap effectively set the framework for organizing the priorities identified in the SHARE SRA.

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3

Challenges in Nuclear Energy Adoption: Why Nuclear Energy Newcomer Countries Put Nuclear Power Programmes on Hold?

Philseo Kim, Hanna Yasmine, Man-Sung Yim, Sunil Chirayath (2024). Nuclear Engineering and Technology, Vol.56(4), p.1234-1243

Abstract

The pressing need to mitigate greenhouse gas emissions has stimulated a renewed interest in nuclear energy worldwide. However, while numerous countries have shown interest in nuclear power over the course of history, many of them have not continued their pursuit and chosen to defer or abandon their peaceful nuclear power projects. Scrapping a national nuclear power programme after making initial efforts implies significant challenges in such a course or a waste of national resources. Therefore, this study aims to identify the crucial factors that influence a country's decision to terminate or hold off its peaceful nuclear power programmes. Our empirical analyses demonstrate that major nuclear accidents and leadership changes are significant factors that lead countries to terminate or defer their nuclear power programmes. Additionally, we highlight that domestic politics (democracy), lack of military alliance with major nuclear suppliers, low electricity demand, and national energy security environments (energy import, crude oil price) can hamper a country's possibility of regaining interest in a nuclear power programme after it has been scrapped, suspended, or deferred. The findings of this study have significant implications for policymakers and stakeholders in the energy sector as they strive to balance the competing demands of energy security, and environmental sustainability.

4

Nuclear Waste: Management, Disposal and Governance

Rohlig, Klaus-Jurgen, editor (2022)

Abstract

Nuclear waste management is an interdisciplinary issue requiring a variety of approaches and a holistic understanding of the field. In this edited volume, Klaus-Jürgen Röhlrig brings together leading researchers from geoengineering, nuclear physics, materials science and the social sciences to provide an overview of the terminology and concepts required to engage in the field. It addresses measures and strategies for managing waste from technical and societal points of view, including practical, legal and ethical considerations involved in strategy choice, as well as historical and participation issues. The book is ideal for early-career professionals and students involved in the nuclear waste field and comprises a valuable reference for more-established professionals and those working with nuclear waste organisations and authorities.

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5

Building Resilient Energy Systems: Lessons from Japan

Sklarew, Jennifer F. (2023)

Abstract

This book explores an ongoing puzzle: why don't catastrophic events, such as oil shocks and nuclear meltdowns, always trigger transitions away from the energy technologies involved? Jennifer F. Sklarew examines how two key factors - shocks and stakeholder relationships - combine to influence energy system transitions, applying a case study of Japan's trajectory from the time of the 1970s oil crises through the period following the 2011 Fukushima Daiichi nuclear disaster. Examining the role of diverse stakeholders' resilience priorities, she focuses on how changes in stakeholder cooperation and clout respond to and are affected by these shocks, and how this combination of shocks and relationship changes shapes energy policies and policymaking. From Japan's narrative, the book derives unique and universal lessons for cooperation on innovation and energy system resilience applicable to communities and nations around the globe, including implications for transitions in the context of the COVID-19 pandemic. The book also places energy system resilience and innovation in the broader context of the food-energy-water-climate nexus. Building Resilient Energy Systems: Lessons from Japan will appeal to all levels of readers with an interest in energy policy, energy technologies and energy transitions: experts and specialists; academics and students; practitioners and policymakers.

6

Demonstrating the Use of a Framework for Risk-Informed Decisions with Stakeholder Engagement Through Case Studies for NORM and Nuclear Legacy Sites

Kontic, Branko, et al. (2022)

Abstract

The framework presented in this paper specifically addresses the needs and expectations in the wider socio-economic and environmental context, as well as a narrower human health context. The framework was demonstrated as part of the International Atomic Energy Agency's second Modelling and Data for Radiological Impact Assessments Programme. Three case studies, which have used or could use this integrative approach, are used for illustration. Results show that formal stakeholder engagement in decision analysis provides a strong contribution to objective, robust, and transparent decision-making not only for radiation protection area but also in others where health and environmental impacts are of concern.

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7

Crisis Communication: a Stakeholder Approach

Ndlela, Martin N. (2019)

Abstract

This timely book explores crises as an inevitable part of modern society, which causes ramifications not only for organisations, but also for a diverse range of stakeholders. Addressing the need for organisations to be guided by a stakeholder-oriented approach throughout all phases of the crisis communication process, the author draws upon various business disciplines and covers the management of issues, risk, reputation and relationships. Covering all stages of crisis communication, from pre-crisis to post-crisis, stakeholder engagement is analysed through a series of case studies, with a particular focus on the role of social media. Scholars of corporate communications and business strategy will find this new book undoubtedly useful, and it will be of particular interest to those involved in crisis communication and management.

8

Towards a Shared Understanding of Radiological Risks

OECD Nuclear Energy Agency (2021)

Abstract

The decisions made about exposure to ionising radiation tend to be driven by subjective judgements about the health risks that radiation exposure may cause. In order to reach decisions that are effective and sustainable, it is essential for nuclear safety regulators, governments, nuclear facility operators and other nuclear energy decision makers to communicate scientific, technical and regulatory information regarding radiological and other risks to all stakeholders. Communicating such information can be complex since people judge and evaluate risks differently depending on the context and on their perceptions of risk. In this context, the Nuclear Energy Agency (NEA) organised the “Stakeholder Involvement Workshop on Risk Communication: Towards a Shared Understanding of Radiological Risks” in September 2019. The workshop provided an opportunity for participants to share perspectives and lessons learnt in risk communication, identifying what has been effective and what has been less effective in the various cases. By understanding how situation-specific factors influence risk communication, a common framework addressing such circumstances can begin to emerge. This report attempts to capture the collective wisdom generated over the three days of interactions in the hope that the knowledge gained from this workshop will benefit governments and citizens alike.

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9

Fundamental Issues Critical to the Success of Nuclear Projects

Boucau, Joseph, editor (2022)

Abstract

Hybrid Technologies for Power Generation addresses the topics related to hybrid technologies by coupling conventional thermal engines with novel technologies, including fuel cells, batteries, thermal storage and electrolysis, and reporting on the most recent advances concerning transport and stationary applications. Potential operating schemes of hybrid power generation systems are covered, highlighting possible combinations of technology and guideline selection according to the energy demands of end-users. Going beyond state-of-the-art technological developments for processes, devices and systems, this book discusses the environmental impact and existing hurdles of moving from a single device to new approaches for efficient energy generation, transfer, conversion, high-density storage and consumption. By describing the practical viability of novel devices coupled to conventional thermal devices, this book has a decisive impact in energy system research, supporting those in the energy research and engineering communities.

10

Public Awareness and Stakeholder Involvement for Bangladesh's Nuclear Power Plant (NPP)

Ahmed, Saikat, et al. (2020). Energy Strategy Reviews, 2020, Vol.32, 100564

Abstract

Nuclear energy renders itself as one of the sustainable energy sources for power production available now. But the major nuclear accident that occurred in the nuclear industry has shown that the generation of nuclear energy has an inherent risk for the environment and the eco-system. Therefore, members of the public - the principal stakeholders - shall be provided with significant opportunities for their engagement in every phase of construction of the NPP. National and regional level public support is very important for the implementation of the first-ever NPP of Bangladesh, the Rooppur NPP (24°4'0"N 89°2'50"E) as well as for the future power plant of the country. This paper analyses public awareness and stakeholder involvement systems in the nuclear energy establishment process in Bangladesh. According to the best international practices settled by the IAEA and national authorities like the Rosatom, this paper recommends certain solutions to the improvement of the public outreach mechanism for the construction of NPP in Bangladesh.

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Conflicts, Participation and Acceptability in Nuclear Waste Governance : an International Comparison. Volume III

Brunnengräber, Achim, Di Nucci, Maria Rosaria, editors (2019)

Abstract

This book is the last part of a trilogy and concludes a long-term project that focussed on nuclear waste governance in 24 countries. It deals with core themes of the disposal of high-level radioactive waste (HLW), e.g. the wicked problems of housing nuclear waste disposal facilities, public participation and public discourse, voluntarism and compensation in siting as well as the role of advisory bodies and commissions. The volume reflects on the diverse factors that shape the debate on what can be considered an "acceptable solution" and on various strategies adopted in order to minimise conflicts and possibly increase acceptability. The various theoretical and empirical contributions shed light on several mechanisms and issues touched upon in these strategies, such as the role of trust, voluntarism, economic interests at stake, compensation, ethics, governance, and participation.

12

Stakeholder Involvement in Decision Making a Short Guide to Issues, Approaches and Resources

Organisation for Economic Co-operation and Development (2015)

Abstract

Radioactive waste management is embedded in broader societal issues such as the environment, risk management, energy, health policy and sustainability. In all these fields, there is an increasing demand for public involvement and engagement. This 2015 update of Stakeholder Involvement Techniques: Short Guide and Annotated Bibliography, assists practitioners and non-specialists by outlining the steps and issues associated with stakeholder involvement in decision making and by facilitating access to useful online resources (handbooks, toolboxes and case studies).

13

Management of Nuclear Power Plant Projects

International Atomic Energy Agency (2020)

Abstract

Offers a comprehensive guide to the management of nuclear power plant projects. It focuses on establishing a structured project management framework to ensure the safe, secure, and efficient delivery of nuclear facilities throughout their lifecycle. The guide is particularly aimed at newcomer countries in the nuclear industry, providing best practices and insights into international standards. It addresses key management areas such as integration, scope, time, cost, quality, human resources, and risk, among others. The document emphasizes the importance of adhering to IAEA safety standards and aims to enhance the capability of member states to plan and implement nuclear power programmes effectively.

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14

A System Design Framework for The Integration of Public Preferences into the Design of Large Infrastructure Projects

Goodfellow, Martin J., et al. (2014)

Abstract

A novel design framework developed for large infrastructure projects. It allows the inclusion of preferences by different stakeholders, including the public. It has a potential to make large infrastructure projects more socially acceptable. The framework is illustrated on a case study of a nuclear plant design. Large infrastructure projects such as new roads, railways and nuclear plants have often suffered from public opposition, causing significant delays and costs. In many cases poor engagement between the supporters of construction and the public have contributed to this. Therefore, this paper proposes a novel design framework with the aim of improving public engagement at an early design stage. Following a modified quality function deployment (QFD) process, it enables incorporation of public preferences into the design process, thus helping to improve the social acceptability of large infrastructure projects and reduce costs related to opposition and delays. The application of the framework is illustrated by a case study related to design of nuclear power plants.