



IAEA

International Atomic Energy Agency

Atoms for Peace and Development

Webinar Series on Introducing Repurposing Strategies Part 3

Webinar on Reimagining Energy Landscapes: Challenges and Opportunities in Repurposing Coal-Fired Power with Advanced Nuclear Reactors

15 June 2023

14:00 Central European Time (UCT+02:00)

Ref. No.: EVT2303329

Information Sheet

Introduction

Several countries are considering or planning the construction of nuclear power plants at or near sites of coal-fired power plants due to the potential benefits of the existing infrastructure and workforce. Due to these possible benefits, developers of advanced reactors, such as small modular reactors and sodium cooled fast reactors, are discussing the possibility of repurposing retired or operating coal-fired power plants with nuclear power plants. The strategies under consideration for this transition vary from placing a new nuclear plant in the vicinity of an existing coal power plant, to replacing the coal boiler in an existing coal power plant with a nuclear heat source and using the existing turbine island and balance of plant.

For the existing site to be licensed to host a nuclear power reactor, authorization must be granted by the regulatory body. Prior to the receiving this approval, the owner/operator of the nuclear

reactor must perform several activities, including, site characterization, preparation, and submission of a site evaluation report to the regulatory body. The characterization of the site should be performed based on certain data, information, methodologies, and criteria. The licensing process may also include the involvement of and consultation with interested parties, including the public and local community. Repurposing the fossil-fuelled power plant with nuclear, the countries should adapt the regulations to reflect specific national requirements and to ensure that the IAEA Safety Standards are adequately incorporated.

Objectives

This webinar will discuss siting considerations, including regulatory aspects, for repurposing coal-fired power plants with nuclear power plants. It will provide an opportunity to highlight some of the recent developments, published reports, and related assessments in this area, including potential benefits, challenges, and possible solutions.

Expected Outputs

By attending this webinar, participants will:

- Increase their understanding on considerations of siting activities and the regulatory framework related to repurposing retired or operating coal power plants with nuclear power plants.
- Exchange thoughts and ideas with members of nuclear industry currently working in this area of repurposing strategies on the topic of implication of siting and regulatory framework.

Speakers Proposal

- Opening Remarks by Aline des Cloizeaux
Director of Nuclear Power Division, IAEA
- Mr Paolo Contri
External Events Safety Section
Division of Nuclear Installation Safety
IAEA



- Ms Yulia Chernyakhovskaya
Deputy Director of Nuclear Infrastructure
Rusatom Service
Russia



- Ms Melania Amuza
Deputy CEO, Commercial and Development
Nuclearelectrica
Romania



Working Language(s)

English

Participation and Registration

The event will be held virtually via WebEx on 15 June 2023 at 10:00 Central European Time (UCT+02:00).

Registration is possible through the following link:

<https://iaea.webex.com/weblink/register/rc769d39af4f865976e18988c0b1a2817>

Target Audience

The webinar is intended to a broad audience including energy professionals, advanced nuclear reactor technology developers and stakeholders interested to learn more and engage in a discussion on opportunities and challenges in relation to repurposing retired fossil plants with advanced nuclear power plants and its implications on the siting and regulatory framework.

Expenditures and Grants

No registration fee is charged to participants.

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Subsequent correspondence on scientific matters should be sent to the Scientific Secretary and correspondence on other matters related to the event to the Administrative Secretary.