

HOW TO REQUEST AN IERICS MISSION?

Interested Member States may request services through official channels addressing their request to the Deputy Director General, Head of the Department of Nuclear Energy. Following the request, Member States will be invited to complete an advance information package ahead of the peer review mission.

For more information contact i-and-c@iaea.org.

FUNDING

The Member State usually funds the service. Depending on the eligibility of the Member State, funds may also be provided, when planned, through the IAEA Technical Cooperation Programme. Alternatively, funding through extrabudgetary resources may be possible.

Photo credit: Ministry of Energy of Belarus; IAEA

OBJECTIVES

The IERICS¹ comprehensive engineering review service addresses strategy and the key elements for implementation of modern instrumentation and control systems at nuclear power plants. The key objectives of the IERICS mission are to assess the design approach, principles and procedures, and operational and licensing related issues or concerns of the system under review.

¹ INTERNATIONAL ATOMIC ENERGY AGENCY, Preparing and Conducting Review Missions of Instrumentation and Control Systems in Nuclear Power Plants, IAEA-TECDOC-1662/Rev. 1, IAEA, Vienna (2016)

INDEPENDENT ENGINEERING REVIEW OF INSTRUMENTATION AND CONTROL SYSTEMS (IERICS)



SCOPE

The scope of the mission is agreed with the host counterpart and specifies the range of systems, their precise identification, boundaries, positions and roles in the overall instrumentation and control architecture, as well as safety classifications and their main missions. It also specifies the properties to be reviewed, and the review basis and reference documents to be used for the review. It should also state the extent of the counterpart's role and the limits of their responsibilities, so that the IERICS team can adjust the review to those aspects. An IERICS mission is limited to the technical, engineering and safety aspects of the NPP's instrumentation and control architecture and systems, unless there is a specific request to address additional areas.



APPROACH

The Independent Engineering Review of Instrumentation and Control Systems (IERICS) process is divided into three main phases:

1. Preparatory phase, which includes a mission to identify the scope and methodology of the main IERICS mission;
2. Review phase, which consists of a review mission; and
3. Follow-up phase, which focuses on implementation of recommendations from the Review mission, and may include an optional follow-up mission.

IERICS related activities are based on documentation describing the design and design basis of the instrumentation and control system under review; interviews with the counterpart; written procedures and methods associated with the design, verification, validation, testing, installation, maintenance and commissioning of the system under review; as well as written documentation related to the qualification of structures, systems and components selected for use in the system under review.

