**INTERNATIONAL ATOMIC ENERGY AGENCY**

**TECHNICAL CO-OPERATION & ASSISTANCE PROGRAMME**

**EXPERT REQUEST FORM**

**N.B: this request form must be submitted to the IAEA at least 3 months prior to expected mission dates**

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|  **ADMINISTRATIVE MATTERS** |
| Project code: | IRA/ 2/013 |
| Project title: | Enhancing the Level of Operational Safety and Reliability of the Bushehr Nuclear Power Plant |
| Title of mission:  | Expert Mission on strategies and reviewing methods and decision making on the applied modifications on nuclear power plant typical program and utilizing the risk-based inspection on reducing the inspections and / or hydraulic tested on plants systems – The IAEA will come back to NPPD by the end of May 2019 with proposal for implementation. |
| Duty station: | - |
| Administrative (including VISA Support) contact person:(specify address, phone and E-mail) | +98-021-24882808shokoohi@nppd.co.ir |
| Technical contact person:(specify address, phone and E-mail) | - |
| Duration of mission: | 5 days |
| Venue date proposal (provide 2):  | Quarter 4 / 2021 |
| Expected breaks and working hours during mission: | - |

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| **TECHNICAL CONTEXT** |
| Context of the mission – why is it needed:(add a justification for the request of the expert mission e.g. To support national project, IAEA project) | * Necessity for revision in organizing In-Service Inspections after 6 year operation of BNPP
* Limitations in the present inspections in Typical Program of ISI of BNPP and its necessity for program updating
* Application of Risk-Based Inspection on the NPP In-Service Inspections
* Methodology for implementation of RBI on the In-Service Inspections
* Methodology for the increase/decrease of In-Service Inspections program and their related requirements
* Using non-destructive tests instead of systems and equipment hydraulic tests-advantages/disadvantages and related experiences
* Application of new and advanced methods for the inspection of main and crucial equipment of NPP
* Application of new and advanced methods of NDE and NDT to predict the failure of equipment and reduce the unnecessary repair
* All of above- mentioned items is needed to be studied from western and eastern point of view
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| Expected outcomes – what is needed: | * Be familiar with the experience, methods and methodologies of revise on the ISI programme and it’s organisation
* Be familiar with the overhaul and ISI experience and their application in typical program of ISI
* Application of Risk-Base Inspection methodology in the inspections and their usage in time of necessity
* Application / not application of NDT methods instead of hydraulic tests according to the mission outcome- advantages/disadvantages and related experiences
* Application of new and advanced methods of NDE and NDT to predict the failure of equipment and reduce the unnecessary repair
* Establishing new inspection methods , improving safety and inspection outcome
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| Expected number of attendees (people attending the mission):  | 5-7 person  |
| Level of the audience (specify the technical background and the professional experience of the attendees) | * Quality Control inspection manager with 13-year experience in PSI and ISI inspections- PhD in Nuclear Engineering(NDT and DT level 3)
* NDT group head with 12-year experience in PSI and ISI inspections- Mechanical Engineer(NDT level 3)
* Technical Control and Inspection group head with 12-year experience in PSI and ISI inspections- Master of Science in Nuclear Engineering(NDT level 2)
* Technical Control and Inspection experts with 7year experience in PSI and ISI inspections- Master of Science in Physics(NDT level 2)
* NDT expert with 12-year experience in NDT tests- Mechanical Engineer(NDT level 2)
* DT expert with 10-year experience in DT tests- Master of Science in Materials Engineering(DT level 3)
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|  **EXPERT MATTERS** |
| Number of Expert/s expected:  | 3-4 persons(from both of western and eastern NPPs) |
| Field of Expertise: | Materials Inspector, NDT Specialist, ISI Documentation Specialist, Advanced methods Inspecting Specialist, RBI Specialist |
| Duties:  | Experts of ISI documentation, NDT, RBI and Advanced NDT with enough experience in NPP or Nuclear Leading Material Organisation |
| Qualification of expert: | Level 3 NDT and Field experts of NNPs or Nuclear Leading Material Organisation in ISI documentation, NDT, and RBI   |
| Acceptable working language of expert: | English, Russian |
| **If specific expert is suggested, please indicate the name and address. This does not mean that the expert will be automatically considered for the mission**.  |
| Name: Telephone: E-mail and Address:  |  |