**PROJECTPROGRESS ASSESSMENT REPORT(PPAR)**

**National Projects**

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|  | ***Explanations*** |
| ***SECTION-1: BASIC INFORMATION*** |
| **Project Number and Title**   | IRA/2/011 Strenghtening and updating capabilities for safe and reliable operation and maintenance of a pressurized light water reactor | *(prefilled)* |
| **Country** | Islamic Republic of Iran,  |
| **Counterpart Name & Institution** | Nuclear Power Production and Development Company of Iran, Atomic Energy Organization of Iran |
| **1st Year of Approval** | 2011 |
| **Estimated Duration** | 5 YEARS |
| **Expected End Date** | 31/12/2015 |
| **Total Project Budget***(as per IAEA White Book)* |  |
| **Reporting Period** | ☐January – June ☐July - December | *Tick one reporting period* |
| **Report Contributors**  |       | *Other contributors to the report besides counterpart* |
| **Has there been any major change that affected the project?** | ☐ Yes ☐ NoIf yes, tick to specify nature of change(s):☐ CP1☐ NLO2☐ PMO3☐ TO4☐Budget/funding; ☐ Other(*specify*)[Provide explanation]……      | *Select “Yes” or “No” and, if “Yes”, please tick relevant box(es) and describe nature of impact* |
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| ***SECTION-2: OUTPUTS ACHIEVEMENT*** |
| *Select status of Output and briefly describe elements of progress towards target indicators: (1st column prefilled)* |
| Output 1: Safety program is assessed and improved (85%)Indicator(s): Safety performance indicators are collected and analyzed | ☐ Completed ☐ On schedule ☐ Delayed ☐ Other (*specify*).     Completed:1. Assistance on spent fuel storage for safe operation of BNPP-1 provided, WS during 28 Feb.-3 March in Tehran (1.22.3). 12 Iranian experts were trained on methods and approaches of spent fuel storage away of the reactor building, as well as on policy, strategy and experience in wet and dry spent fuel storage facilities including relevant safety calculations and analysis of lost of storage coolant. Proposal of feasibility study for construction of Internal Spent Fuel Storage Facility in BNPP are being prepared.
2. Advance training course for 5 Iranian experts on effective nuclear accountancy and control using the delivered by the IAEA STAR software held on 24-28 January at BNPP-1 (1.8.1, additional request). Very practical training especially concerning implementation of some changes in related tables/forms. The last exe. file of the software updated and delivered to the BNPP-1 operator.
3. Additional request for assistance in the review of the first draft Severe Accident Management (SAM) document of BNPP-1 provided – EM during 11-13 January 2015 in Tehran (1.18.3). The capabilities of BNPP-1 experts have been enhanced for development and implementation of SAM Guideline.

Planned for the second half of 2015:1. Planned for 2015 assistance on strengthening nuclear security culture taking into consideration improved security procedures at utility level (1.10.2) is cancelled on the request of the counterpart.
2. Assistance on models in computer codes and application to perform thermal-hydraulic analysis for safe operation of BNPP-1is in good progress, WS during 15-19 August in Tehran (1.23.1)
3. Additional request for assistance on reviewing actual calculations and recommending improvements to the models for BNPP1, WS/EM planned for November 2015 (1.23.2) – final decision at the WS under 1.23.1.
4. Assistance on enhancement of on-site and off-site emergency preparedness and response (1.18.1) is shifted under the new project for 2016-2017
5. Additional request for assistance (EM) to define parameters to strengthening routine and post accident radiation environmental monitoring for BNPP is in progress for 12-15 July in Bushehr (1.16.2)
6. Additional request for assistance (WS) in organization of emergency repairs and use of mobile equipment in good progress for 18-20 August in Vienna (1.18.2)
7. Planned SV to NPPs on several issues on safety management systems are shifted to the new project for 2016-2017 (1.21.1)
8. Participation of BNPP-1 expert as observer to the OSART mission to Novovoronezh NPP, Russia in November 2015 (1.1.2) will support preparations for the planned OSART mission to BNPP-1 under the new project in 2016-2019.

Note:With implementation of remaining activities by the end of 2015 it is expected the Output 1 objectives to be fully (100%) achieved. | *Select status and provide explanation/ supporting background information (e.g., Why is the output delayed? What mitigation measures have been taken to solve the issue?)* |
| Output 2: … Maintenance program is optimized and updated (92%)Indicator(s): 20 staff of M&R department capable of using the new methods in M&R process planning and implementation of procedures | ☐ Completed ☐ On schedule ☐ Delayed ☐ Other (*specify*)[Provide explanation]……     Activities under this output are planned for second half of 2015.Planned for second half of 2015:1. Assistance (EM) on advanced maintenance methods, materials and tools to enhance BNPP-1 safety (2.2.1) and to support development of Statement of Work (SOW) to computerized BNPP-1 outage management activities with focus on safety aspects is in good progress for 8-12 August 2015 in Bushehr.
2. Training WS of BNPP-1 personnel on surveillance specimens management of main safety equipment (RPV) in progress for 14-16 October 2015 in Vienna ( 2.2.2).
3. Planned assistance on computer based management of safety related operational and inspection procedures/documents (2.2.4) is cancelled on the request of the counterpart.
4. Assistance on modern methods of outage management (2.4.1) and on outage optimization strategy and risk monitoring in BNPP-1 operation (2.3.1) is in progress for 7-10 September in Vienna.
5. Assistance (Scientific visits) on advanced equipment and techniques for In-Service Inspection (ISI) of BNPP-1 primary circuit equipment (2.3.2) is shifted to new project IRA2014001 for 2016-2017.

 Note: Some other expected achievements of implementation the activities will be :* development of equipment M&R history incorporating changes due to construction,
* installation and M&R activities;
* establishment of permanent warehouse system in BNPP;
* preparation of checklist and control documents of main equipment M&R activities to increase quality performance and analysis of results.
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| Output 3: TechnicalSupportprogramismodified (85%)Indicator(s): 20 staff of Technical support department capable of using the new methods in planning and implementation of new methods for modernization of equipment and inspection activities | ☐ Completed ☐ On schedule ☐ Delayed ☐ Other (*specify*)[Provide explanation]……     Completed:1. Fellowships training on advanced NDT methods and techniques for enhancement of safety of BNPP-1 reactor equipment was provided to 6 Fellows for 3 weeks duration, total 20 m/w in HRID company, Croatia (3.3.2) in January 2015. Enhanced knowledge and capabilities of to analyze the collected data related to steam generators, pipes and systems of BNPP-1 primary circuit. Iranian experts received 8 NDT certificates in Eddy current test Level-2 and Ultrasoninc test Level-2.
2. Assistance (EM) on procedures, methods and good practices on development and maintenance of BNPP-1 peformance insicator (PI) system was provided during 23-26 May in Bushehr (3.6.1). Familiriazation with technilal requirements and specification of: safety and operational peformance indicators and training on sofware application tat supports PI system management and its utilization; number of training hours for the plant personnel – including managers – involved in WANO PI data collection, review, data entry system.

Planned for second half of 2015:1. Support in dvelopment of SoW to computerized BNPP1 outage management activities with focus on safety aspects (3.1.2) – jointly with (2.2.1), 8-12 August in Bushehr
2. Training (SV) on proved methods for safety analysis of BNPP-1 equipment reliability (3.3.3) – some issues to be covered under (2.3.1) and SV shifted to the new project in 2016-2017.
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| Output 4: BNPP training program is updated (70%).Indicator(s): All procedures and training plans are revised  | ☐ Completed ☐ On schedule ☐ Delayed ☐ Other (*specify*)[Provide explanation]……     On the basis of the assistance provided in 2014 on assessment of BNPP-1 selected operational training programmes and procedures NPPD made necessary improvements.Due delay in the fulfilment of commitments of main contractor of BNPP, there is no need for assistance in 2015, and further assistance is considered under new project for 2016-2017.  | *Insert additional rows if more than 4 outputs* |
| Output 5. Improved capability in legal and contractual issues relating preparation of required contracts for operation and maintenance of BNPP1 (100%)Indicator(s): Number of staff trained by field and qualification | ☐ Completed ☐ On schedule ☐ Delayed ☐ Other (*specify*)[Provide explanation]……     Planned for second half of 2015:On the basis of assistance already provided development and management of operational contract (NPPD and BNPP-1) and of repair contract (NPPD and repair companies) , NPPD requested additional assistance on general structure and special provisions in contact on BNPP-1waste management between NPPD and waste management company (.5.3.1) – planned for Oct.2015 in Tehran. |  |
| Output 6.Overall HRM system for BNPP-1 is in progress of improvement (60%)Indicator(s): Status report on the implementation of the WFP        | ☐ Completed ☐ On schedule ☐ Delayed ☐ Other (*specify*)Provide explanation]……Completed:1. On the addtional request assistacne was provided on establishment of BNPP-1 human performance laboratory (6.1.2) in May in Vienna. Familiarixation of Iranian expers with the international experiences regarding the psychological and physiological Laboratory including:
* Activities of Lab and its application in the HR management processes;
* Technical Specifications and requirements of building;
* Documents and instructions;
* Job analysis and extracting the psychological qualifications of NPP jobs and methods for performing the psychological and physiological examinations and norms
* Hardware and software equipment

The draft SoW on technical specifications of psychological and physiological laboratory of Bushehr NPP through applying the IAEA and experts shall be completed by the counterpart.Planned for second half of 2015:1. Assistance in evaluation of BNPP Human Resourse Management (HRM) system (6.1.1) planned for Q4 2015. On the basis of the submitted BNPP-1 self-assessment and IAEA feedback, improvements were made or in process of implementation. Results of assessment will be provided and further assistance to be considered under the new project for 2016-2017.
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| Output 7. Improvement of BNPP-1 full scope simulator (FSS) performance in progress (30%)Indicator(s): Quarterly review of the workload and services delivered | ☐ Completed ☐On schedule ☐ Delayed ☐ Other (*specify*)[Provide explanation]……     Activities of this area have not been executed because of delay in the fulfilment of commitments of main contractor of BNPP and will be considered underthe new project for 2016-2017  |  |
| Output 8. Increased owner organization capability in application of nuclear oversight function (100%) | ☐ Completed ☐ On schedule ☐ Delayed ☐ Other (*specify*)[Provide explanation]……     Planned for the second half of 2015:On the basis of the assistance provided in 2014 on development and establishment of NPPD nuclear oversight, the NPPD requested additional assistance to assess implementation of the NPPD nuclear oversight function – and EM is planned for October 2015 (8.1.2) |  |
| Output 9. BNPP Training Centre in process of upgrading (70%)Indicator(s): Number of trainers, their qualifications and the number of training activities implemented | ☐ Completed ☐ On schedule ☐ Delayed ☐ Other (*specify*)[Provide explanation]……     Further assistance in this area is considered under the new project in 2016-2017. |  |
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| ***SECTION-3: EQUIPMENT & HUMAN RESOURCES*** |
| *Based on TC Input categories, rate overall contribution towards achievement of project Outputs of Procurement and Human Resources capacity building Activities implementedthus far* |
| Equipment (EQ)/ Sub-Contract (SC) | ☐Not Applicable■ Very Good ☐ Good ☐ Fair ☐ Poor* The delivered START software for advanced NMAC very important for strengthening effectiveness of BNPP-1 safeguard reporting system
* The assistance in the purchase of RISK SPECTRUM software for LPSA for BNPP-1 is in progress
 | *Select overall rating and provide explanation/ supporting background information deemed relevant to support rating**(e.g., Is the procured EQ on schedule as regards delivery/ custom clearance/ installation-commissioning/ utilization? If not, what is being done to overcome difficulties?**How did/ will the training received through FEs/ SVs support the establishment of new services? Are the trainees still employed?**How did/ will the technical guidance received during/after EMs help improve capabilities of the Counterpart Institute?* *Was/will the knowledge and experience gained by TC/ WS participants shared/ be shared among colleagues to enhance institutional performance? How was/ will this done/ be done?)* |
| Expert Missions (EM) | ☐ Not Applicable☐Very Good ☐ Good ☐ Fair ☐ Poor |
| Fellowships (FE) | ☐Not Applicable☐ Very Good ☐ Good ☐ Fair ☐ PoorGetting training certificate in Eddy current test Level-2 and ultrasonic Test Level-2 in methods: Phased Array, Time of Flight Diffraction (TOFD) and Advanced sizing techniques .)(3.3.2) |
| Scientific Visits (SV) | ☐ Not Applicable☐ Very Good ☐Good ☐ Fair ☐ Poor |
| National Training Courses (TC) | ☐ Not Applicable☐ Very Good ☐ Good ☐ Fair ☐ Poor[Provide explanation]……      |
| Meetings (MT)/ Workshops (WS) | ☐Not Applicable☐ Very Good ☐ Good ☐ Fair ☐ Poor |
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| ***SECTION-4: COMMENT AND RECOMMENDATIONS BY CP*** |
| **Rating by CP**  | The project performance:☐ Very Good ☐ Good ☐ Fair ☐ Poor☐ Very Poor[Provide explanation]……      | *Select rating based on experience thus far and provide explanation/ supporting background information deemed relevant to support rating* |
| The support received from the Agency: ☐ Very Good ☐Good ☐ Fair ☐ Poor☐ Very Poor[Provide explanation]……      |
| **Lessons learned** |  | *Highlight key factors of success / failure that can promote/ hinder the achievement of project outputs and may impactTC Programmedelivery* |
| **Recommendation(s) by CP to:** | ☐PMO      ☐TO      ☐NLO/Government☐CP Management ☐Other (specify)       | *Select addressee and provide recommendation(s) to be addressed* |
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| ***SECTION-5: OUTCOME PROGRESS:*** *(1st column prefilled)* |
| Outcome StatementAssessment of BNPP performance and safety indicators and Improvement in some area | ☐ Achieved☐To be achieved as planned (on schedule)☐ Delayed☐Other (*specify*)With completion of planned activities in the second half of 2015 it is expected to achieve the project objectives by the end of project life cycle (30.12.2015)Some of the activities of this area have been transferred to the upcoming new program in 2016-2019. | *Select status and provide explanation/ supporting background information (e.g.,based on the outcome indicator and its target value, to what extent the outcome is being achieved? Is there any deviation from expectations? Why?)* |
| Outcome Indicator (s)Performance and safety indicators are assessed and in some area improved by the end of 2015 in comparison with the baseline |
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| ***SECTION-6: CLEARANCE BY NLO*** |
| **Clearance by NLO** | Date:      | *Day, Month and Year* |
| Remarks:      | *Provide any additional remark deemed relevant* |
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***SECTION-7: FEEDBACK BY IAEAON THE REPORT*** |
| **Comments by TO(s)** | ☐ Very Good ☐ Good ☐ Fair ☐ Poor ☐ Very Poor[Provide explanation]……      | *Rating and feedback from TO(s)****on the report*** |
| **Comments by PMO** | ☐ Very Good ☐ Good ☐ Fair ☐ Poor ☐ Very Poor[Provide explanation]……      | *Rating and feedback from PMO(s)* ***on the report*** |
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1**CP**: Counterpart 2 **NLO**: National Liaison Officer

3**PMO**: Programme Management Officer 4**TO**: Technical Officer