[Bid Notice]

1) Item for Bid: Technical Consultation for Developing Optimum Flaw Evaluation Methodology of Reactor Vessel Internal Components

2) Type: Limited Competitive Tendering, Contract through Negotiations

3) ITB No.: ITB20-KCN-02-01

4) Submission Due Date: May 1st, 2020 (09:00 a.m. KST)

5) Estimated Value: US$ 61,045

6) Expected Completion Date: 4 (four) months from contract signing

7) General Scope of Work

The Contractor shall identify various fracture mechanics parameters and provide technical justifications for their applicability, as follows:

The stress intensity factor solutions as well as J-integral solutions shall be applicable to various geometries (i.e. flat plate, shallow cylinder, solid bar, thin tube, etc.). In addition, technical justification for applicability of suggested solutions shall be provided in order to prepare future licensing activities.
The fracture toughness data and crack growth rates shall be applicable to typical austenitic stainless steel base metal and welds. In addition, technical justification for applicability of suggested data shall be provided in order to prepare future licensing activities.

Task	Activity	
Task 1	Optimum K/J-integral Solutions	● Identification of stress intensity factor (K) Solutions for RVI Components ● Identification of J-integral Solutions for RVI Components ● Technical Justification for Solution Applicability
Task 2	Optimum Fracture Toughness Data	● Identification of KICforRVIComponents ● Identification of J-R Curves including JICforRVIComponents ● Technical Justification for Applicability
Task 3	Optimum Crack Growth Rate	● Identification of Fatigue Crack Growth for RVI Components ● Identification of Stress Corrosion Crack Growth for RVI Components

		● Identification of Irradiated Assisted Stress Corrosion Crack Growth for RVI Components ● Technical Justification for Applicability
Task 4	Consulting Report and Technical Meeting	● Interim Report ● Technical Meeting at Contractor's Office ● (at least two days) ● Final Report

8) Qualification (eligibility) for Bid:

- Experience on the EPRI research projects for PWR reactor vessel internal
- Experience of the similar project to perform the integrity evaluation of PWR reactor vessel internal based on the EPRI MRP-227
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9) Point of Contact: Contract Department, KEPCO E&C
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