# **Invitation to Bid**

(No.: ITB21-KCN-01)

# Consulting on the technical support for the assessment of APR1000 compatibility with European Requirements

February, 2021



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# CHAPTER I

# **GENERAL INFORMATION**

# A. GENERAL INFORMATION OF THE SERVICES

# A. GENERAL INFORMATION OF THE SERVICES

KEPCO E&C has developed a new NPP design of APR1000 to comply with the safety requirements of latest IAEA, WENRA and EUR Rev. E to provide the most competitive NPP in the overseas market including Europe. KEPCO E&C is responsible for the design of the APR1000 which also applies for the EUR design assessment.

Although most of the APR1000 design concepts have already been completed, there are still several areas that need further development and/or independent peer review by a third party because those areas include new evolutionary design concepts or European region-specific design requirements.

The purpose of this contract is to assist KEPCO E&C to complete the APR1000 standard design

# CHAPTER II

# **INSTRUCTION TO BIDDER**

- A. GENERAL INSTRUCTIONS
- **B. SUBMISSION OF BID DOCUMENTS**
- C. DEADLINE FOR SUBMISSION AND VALIDITY OF BID DOCUMENTS
- D. LATE SUBMISSION
- E. CLARIFICATION
- F. BID CURRENCIES
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#### A. GENERAL INSTRUCTIONS

Bidders are requested to prepare and submit a technical proposal and a financial proposal (collectively, the "Bid Documents") in accordance to all the requirements specified in this Invitation to Bid (ITB). ITB includes all chapters and appendixes indicated in the table of contents of this ITB.

#### B. SUBMISSION OF BID DOCUMENTS

1. Bidders shall submit Bid Documents to the following address by e-mail:

Attn. 1: Mr. Yoon Donggyu

General Manager

Contract Team

KEPCO Engineering & Construction Co., Inc.

E-mail: dony.yoon@kepco-enc.com

Attn. 2: Mr. Lee Seunghyun

Contract Team

KEPCO Engineering & Construction Co., Inc.

E-mail: sh.lee@kepco-enc.com

## 2. Documentations to be Submitted

# (a) Commercial Proposal

- Price Bid Form (A. PRICE BID FORM in CHAPTER III INFORMATION for COMMERCIAL PROPOSAL) shall be completed and submitted.
- Deviation request, if any, using Deviation Request Form (B. DEVIATION REQUEST FORM in CHAPTER III INFORMATION for COMMERCIAL PROPOSAL) and marked-up General Terms & Conditions (GTC) of appendix A. Deviation requests shall include explanations why the Bidder requests those deviations. Request(s) marked-up in GTC and written in Deviation Request Form both shall only be considered as the Bidder's deviation request.
- Any relevant evidences and/or descriptions, comments and/or proposals in connection with this Bid.

#### (b) Technical Proposal

- Technical Proposal (Bidder's forms shall be used)

Technical Proposal and Commercial Proposal shall be submitted in separated files and named accordingly. Two separated files using Zip files for each can be an option.

C. DEADLINE FOR SUBMISSION AND VALIDITY OF BID DOCUMENTS

Bidder(s) submit its Bid Documents no later than 09:00 a.m. Korean Standard Time

on February 26, 2021 and the Bid Documents shall remain firm valid for a period of

six (6) months from the date of this deadline. Once submitted, proposals shall not be

withdrawn until the validity of the Bid Documents.

D. LATE SUMBISSION

Bid Documents received after the deadline for submission of the Bid pursuant to

Section C above may be rejected.

E. **CLARIFICATION** 

Should the any Bidder find discrepancies or should any doubt or question exist as to

the true meaning or intent of any portion of the contents of this ITB, the Bidder may make a written request to KEPCO Engineering & Construction Co., Inc. (hereinafter

called "KEPCO E&C"). However, the clarification shall be submitted no later than

seven (7) days prior to deadline for submission of this Bid.

The request for clarification and the response shall be given in writing via e-mail.

Clarification inquiries and answers may be disclosed to all Bidders who intend to

participate the Bid.

Bidder's questionnaire must be submitted to the following address:

Attn.: Mr. Lee Seunghyun

E-mail: sh.lee@kepco-enc.com

F. **BID CURRENCIES** 

The Bidder shall submit its Bid Documents with amounts in Euros ( $\in$ ).

G. LANGUAGE OF BID

The Bid Documents prepared by Bidder(s) and all correspondences and documents

relating to the Bid exchanged between the Bidder and KEPCO E&C shall be written in

English.

Η. CONFIDENTIAL NATURE OF DOCUMENTS

The contents of this ITB shall only be used for the preparation of the Bid.

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#### I. OWNERSHIP OF BID AND COMPENSATION

Bid Documents once submitted to KEPCO E&C shall not be returned to the Bidder regardless of whether it is accepted or rejected. The Bidder shall bear all costs associated with the preparation and submission of the Bid Documents, and in no case will KEPCO E&C be responsible or liable for those costs, regardless of the conduct or outcome of the Bid process.

#### J. MODIFICATION, REJECTION AND WITHDRAWAL OF BID

KEPCO E&C reserves the right to reject without any liability to the Bidder(s) any part of, or all Bids, to modify or withdraw this ITB at any time, and to enlarge or reduce the scope of Services to be included in the ITB.

# K. QUALIFICATION REQUIREMENT

Only the Bidder(s) which meet all requirements described below shall be qualified for this Bid.

- EUR Organization Members
- Design Experience on Nuclear Power Plants
- Consulting Experience on EUR certification
- Participating experience in developing EUR Rev.E and assessing EUR certification

#### L. COMPOSITION OF BID DOCUMENTS and BID EVALUATION

Any procedure, method and decision to be taken by KEPCO E&C with regard to the evaluation shall be decisive and any claim by the Bidder will not be accepted. During the evaluation of Bid, KEPCO E&C may ask Bidder(s) for clarification of its Bid Documents.

The Bidder(s) shall prepare and submit its Bid Documents to KEPCO E&C by two different files separating for Part I. Commercial Proposal and Part II. Technical Proposal as follows:

# Part I. Commercial Proposal (30%)

Terms and conditions attached as Appendixes in this ITB will be the basic terms and conditions to be finalized through contract negotiation. Unless the Bidder(s) clearly states its deviation request and/or exceptions to the terms and conditions in its Commercial Proposal, the Bid Documents shall be construed as an offered in compliance with the terms and conditions as described in the ITB including Appendixes.

Bidder(s) shall submit its Commercial Proposals using forms indicated in Chapter III [Information for Commercial Proposal]

- 1. Bid price made in accordance with Price Bid Form in Chapter III.
- 2. Exceptions and/or deviations to GTC of Appendix A, using Deviation Request Form and GTC.
  - The Bidder with no exceptions and/or deviations against terms and conditions will receive the maximum score
  - Bidder(s) requesting any exceptions and/or deviations shall clearly fill the Deviation Request Form and markup on the GTC.

Commercial evaluation shall be made based on 80% bid price and 20% deviation request

# Part II. Technical Proposal (70%)

The factors to be considered in selecting the first eligible Bidder include, without limitation, the following. Therefore, each bidder shall prepare its proposal to include below information:

- 1. Bidder's qualification, experience, and capabilities for the task listed on the ITB
  - Bidder's experiences of the similar project to the NPP System in Europe
  - Bidder's experiences of overseas technical transfer and computer program application and analysis related with the work scope
  - Description on the practical work experience related with the work scope

#### 2. Performance Plan

- Understanding on requirements of work scope in the technical specification.
- Consistency with technical service and consultant objectives
- Adequacy of the project manpower and suitability of the proposed man hour
- Completeness and effectiveness of work plan and performance method of the Services

#### 3. Manpower

- Project organization and qualification of the key personnel which the Bidder would propose for each task
- Knowledge on regulations, requirements, systems, and design.
- Similar project experience of designated personnel

# 4. Organization

- Project organization and qualification of the key personnel which the Bidder would propose for each task

## 5. Requirements

Bidder(s) shall provide relevant evidences and/or descriptions that the Bidder meets requirements for this bid.

- EUR Organization Members
- Design Experience on Nuclear Power Plants
- Consulting Experience on EUR certification
- Participating experience in developing EUR Rev.E and assessing EUR certification

For Bidder's information, please see below table which will be used for technical evaluation of this bid.

- Evaluation Table(Technical)

No	Evaluation Factors	Contents	Score	Details and score
1	Experience with similar projects		30	<ul> <li>Similarity of contents (10)</li> <li>Number of Overseas Technical Consulting or Technology Transfer Experience regarding Consulting Items (10)*</li> <li>Experience of Computer Program Application and Analysis regarding Consulting Items(10)</li> </ul>
2	Project Action Plan	Project Action Schedule and Appropriateness of Management	30	<ul><li>Understanding of Purpose and Method of Service (20)</li><li>Appropriateness of Planned Schedule (10)</li></ul>
3	Available Technical Personnel	Similar Work Experience	30	<ul><li>Appropriateness of Manpower Plan (15)</li><li>Similar Work Experience of Manpower(15)</li></ul>
4	Organization	Status of Technical Manpower and Organization	10	<ul><li>Available Manpower of Company (5)</li><li>Available Alternative Manpower (5)</li></ul>
합계			100	

<sup>\* 10</sup> or more performances : 10 /  $5\sim9$  performances : 9 / less than 5 performances : 8

- EUR Organization Members
- Design Experience on Nuclear Power Plants
- Consulting Experience on EUR certification
- Participating experience in developing EUR Rev.E and assessing EUR certification

<sup>\*\*</sup> Only of the Bidders with technical score of 85% or more shall be considered to be qualified bidder for negotiation.

<sup>\*\*\*</sup> Bidder which do not meet requirement for bid shall be disqualified.
[Requirement]

#### M. OTHERS

- 1. KEPCO E&C will not authorize the expenses related to Bidder's visit to Korea for the discussion of this ITB or contract negotiation.
- 2. The purpose of this ITB is only to select preferred bidder. Accordingly, KEPCO E&C is not obligated to accept the terms and conditions of the Bid Documents. In the event KEPCO E&C and the preferred Bidder fail to reach an agreement on the contract, KEPCO E&C shall have the right to select and negotiate with another Bidder without any liability or compensation to the selected Bidder. KEPCO E&C also reserves the right to reject any and all proposal received by reason of this ITB and to negotiate separately with any source whatsoever, in any manner deemed necessary, to serve the best interest of KEPCO E&C.
- 3. KEPCO E&C will not conclude a Contract with any bidder if the bidder will not accept the performance guarantee requirements described in CHAPTER III INFORMATION for COMMERCIAL PROPOSAL. However, the guarantee may be provided with cash deposit into KEPCO E&C's account in case both parties agree.

# **CHAPTER III**

# **INFORMATION for COMMERCIAL PROPOSAL**

- A. PRICE BID FORM
- **B.** DEVIATION REQUEST FORM
- C. PERFORMANCE GUARANTEE REQUIRMENTS

# A. PRICE BID FORM

Budget for this contract is € 210,000 euros.

Tasks	Position Assigned	Hourly Rate (EURO/Hour)	Man- Hour	Amount (EURO)
Task 1 – I&C Common Cause Failure(CCF) Design				
Task 2 – Methodology and Technical Background for Dependability Analysis of I&C Systems				
Task 3 – IEC code & standard				
Task 4 – BDAS(Boron Dilution Prevention System) Design				
Task 5 – Bypass Leakage of Secondary Containment				
Task 6 – Design of Core Catcher				
Task 7 – Radiation Monitors in NPP with Combined Heat and Power Generation				
Total				

# **B. DEVIATION REQUEST FORM**

Article #	DESCRIPTION	JUSTIFICATION

# C. PERFORMANCE GUARANTEE REQUIREMENTS

Contractor shall furnish KEPCO E&C with a Performance Guarantee which shall be of Bank Guarantee or Standby Letters of Credit (LC). Guarantee shall be issued by KEB Hana Bank KEPCO E&C(S) branch.

All costs, expenses, fees and charges levied by all banks party to the Performance Guarantee shall be prepaid/borne by the Contractor. The Performance Guarantee shall contain all requirements of payment to KEPCO E&C.

Requirements of the Performance Guarantee:

- Designated bank information:
  - KEB Hana Bank (KEPCO E&C(S) Branch)
  - Swift Code: KOEXKRSE or KOEXKRSEXXX
  - Bank Address: 269, Hyeoksin-Ro, Gimcheon-Si, Gyeongbuk-Do, 39660, Republic of Korea
  - Tel.: +82-54-437-9405
- Application Rules: UCP Latest Version
- Guarantee period: Guarantee period described in the Contract
- Guarantee Amount: 10% of the Contract Price
- Beneficiary: KEPCO Engineering & Construction Co., Inc.

269, Hyeoksin-Ro, Gimcheon-Si, Gyeongbuk-Do, 39660, Republic of Korea

- The Performance Guarantee shall be denominated in the currency used in the Contract.
- It shall be the responsibility of the Contractor to ensure that its Performance Guarantee is valid at all times during the period of contract validity and further is in the full amount as contracted.
- The performance guarantee shall be held against payment to KEPCO E&C for any loss resulting from the Contractor's failure to perform its contractual obligations fully and properly without any reference to the Contractor.
- The performance guarantee shall be irrevocable shall be provided in as a first-demand guarantee.
- Bank shall use the wordings of the Appendix for the guarantee.

[Appendix- Wordings for Guarantee]

#### 1. Bank Guarantee by KEB Hana Bank

APPLICANT: [To be Included]

BENEFICIARY: KEPCO ENGINEERING AND CONSTRUCTION CO., INC. 269, HYEOKSIN-RO, GIMCHEON-SI GYEONGSANBUK-DO 39660, REPUBLIC OF KOREA

WE HAVE BEEN INFORMED BY OUR PRINCIPAL, [To be Included], CONCLUDED A CONTRACT THAT

YOU HAVE SIGNED WITH THEM THE CONTRACT FOR [To be Included] WITH KEPCO ENGINEERING AND CONSTRUCTION CO., INC. (HEREINAFTER REFFERRED TO AS THE BENEFICIARY) FOR [Contract amount to be Included] TO PROVIDE CONSULTING SERVICE.

WE HAVE ALSO BEEN INFORMED THAT ACCORDING TO THE ABOVE-MENTIONED CONTRACT, A PERFORMANCE GUARANTEE IS REQUIRED.

AT THE REQUEST OF THE PRINCIPAL, WE, KEB HANA BANK, 35 ULCHIRO, CHUNG-GU, SEOUL, REPUBLIC OF KOREA, HEREBY IRREVOCABLY UNDERTAKE TO PAY YOU ANY SUM OF SUMS NOT EXCEEDING IN TOTAL AN AMOUT OF [To be Included] UPON RECEIPT BY US OF YOUR FIRST DEMAND IN WRITING AND YOUR WRITTEN STATEMENT STATING THAT THE PRINCIPAL IS IN BREACH OF HIS OBLIGATIONS UNDER THE UNDERLYING CONTRACT AND THE RESPECT IN WHICH THE PRINCIPAL IS IN BREACH.

THIS GUARANTEE WILL EXPIRE ON [To be Included], AT THE LATEST. CONSEQUENTLY, ANY DEMAND FOR PAYMENT MUST BE RECEIVED BY US AT THIS OFFICE ON OR BEFORE THAT DATE.

THIS GUARNATEE IS SUBJECT TO THE UNIFORM RULES FOR DEMAND GUARANTEES, ICC PUBLICATION NO.758.

#### 2. Counter Guarantee by other bank and guaranteed by KEB Hana Bank

TO: KEB HANA BANK (KEPCO E&C(S) Branch)

Swift Code: KOEXKRSE or KOEXKRSEXXX

Bank Address: 269, Hyeoksin-Ro, Gimcheon-Si, Gyeongbuk-Do, 39660, Republic of Korea AT THE REQUEST OF PRINCIPAL, PLEASE ISSUE ON OUR RESPONSIBILITY IN FAVOR OF KEPCO ENGINEERING AND CONSTRUCTION CO., INC. YOUR GUARANTEE IN THE FOLLOWING WORDING:

OUOTE

APPLICANT: [To be Included]

BENEFICIARY: KEPCO ENGINEERING AND CONSTRUCTION CO., INC.

269, HYEOKSIN-RO, GIMCHEON-SI GYEONGSANBUK-DO 39660, REPUBLIC OF KOREA

WE HAVE BEEN INFORMED BY OUR PRINCIPAL, [To be Included], CONCLUDED A CONTRACT THAT YOU HAVE SIGNED WITH THEM THE CONTRACT FOR [To be Included] WITH KEPCO ENGINEERING AND CONSTRUCTION CO., INC. (HEREINAFTER REFFERRED TO AS THE BENEFICIARY) FOR [Contract amount to be Included] TO PROVIDE CONSULTING SERVICE.

WE HAVE ALSO BEEN INFORMED THAT ACCORDING TO THE ABOVE-MENTIONED CONTRACT, A PERFORMANCE GUARANTEE IS REQUIRED.

AT THE REQUEST OF THE PRINCIPAL, WE, KEB HANA BANK, 35 ULCHIRO, CHUNG-GU, SEOUL, REPUBLIC OF KOREA, HEREBY IRREVOCABLY UNDERTAKE TO PAY YOU ANY SUM OF SUMS NOT EXCEEDING IN TOTAL AN AMOUT OF To be Included UPON RECEIPT BY US OF YOUR FIRST

DEMAND IN WRITING AND YOUR WRITTEN STATEMENT STATING THAT THE PRINCIPAL IS IN BREACH OF HIS OBLIGATIONS UNDER THE UNDERLYING CONTRACT AND THE RESPECT IN WHICH THE PRINCIPAL IS IN BREACH.

THIS GUARANTEE WILL EXPIRE ON [To be Included], AT THE LATEST. CONSEQUENTLY, ANY DEMAND FOR PAYMENT MUST BE RECEIVED BY US AT THIS OFFICE ON OR BEFORE THAT DATE.

THIS GUARNATEE IS SUBJECT TO THE UNIFORM RULES FOR DEMAND GUARANTEES, ICC PUBLICATION NO.758.

#### **UNQUOTE**

IN CONSIDERATION OF YOUR ISSUING YOUR GUARANTEE AS ABOVE, WE, To be Included, HEREBY GIVE YOU OUR IRREVOCABLE COUNTER-GUARANTEE AND UNDERTAKE TO PAY YOU ANY SUM OR SUMS NOT EXCEEDING IN TOTAL ANOUNT OF To be Included UPON RECIPT BY US AT THIS OFFICE NO LATER THAN TO be Included OF YOUR FIRST WRITTEN DEMAND. SUCH A DEMAND SHALL BE SUPPORTED BY YOUR WRITTEN STATEMENT THAT YOU HAVE RECEIVED A DMAND FOR PAYMENT UNDER YOUR GUARANTEE IN ACCORDANCE WITH ITS TERMS AND WITH ARTICLE 18 OF THE UNIFORM RULES FOR DEMAND GUARANTEES.

THIS COUNTER-GUARANTEE IS SUBJECT TO THE UNIFORM RULES FOR DEMAND GUARANTEES, ICC PUBLICATION NO. 758.

PLEASE CONFIRM TO US THE ISSUANCE OF YOUR GUARANTEE.

CHARGES: ALL BANKING CHARGES SHALL BE FOR THE ACCOUNT OF THE APPLICANT.

# **CHAPTER IV**

# INFORMATION for TECHNICAL PROPOSAL

- A. SCOPE OF THE SERVICES
- **B.** METHOD OF PERFORMANCE

#### A. SCOPE OF THE SERVICES

Contractor shall provide engineering consulting services to KEPCO E&C including the following tasks:

#### Task 1: I&C Common Cause Failure (CCF) Design

The objective of this item is to have consultation on the conformance to EUR Rev.E requirements of the APR1000 design regarding CCF-resistant and inherent robust features. The contractor shall provide consultation services for the following sub-items.

Providing review result on APR1000 I&C CCF coping design for the compatibility with relevant EUR Rev.E requirement based on detailed design description in Defense-in-Depth and Diversity (D3) report provided by KEPCO E&C

- Providing proposal for improving KEPCO E&C's D3 strategy based on above review results
- Providing licensing experience and information for CCF Coping I&C design in Europe

<u>Task 2:</u> Methodology and Technical Background for Dependability Analysis of I&C Systems EUR Rev.E (Vol.2 Chapter 10, Section 6.4.4) requires that an analysis of the effectiveness of the measures implemented shall be performed in the design process for the I&C architecture to achieve the required independence. Dependability, which encompasses availability (reliability and maintainability) and credibility (integrity and safety), has to be assessed to show the conformance of the APR1000 I&C design to EUR Rev.E. The contractor shall provide consultation services for the following sub-items.

- Providing Evaluation methodology on dependability consisting of availability (reliability and maintainability) and credibility (integrity and safety) for I&C systems based on EUR Rev.E (Volume 2, Chapter 10, Section 6.4.4.2) All the attributes which can either directly or indirectly affect the I&C system dependability shall be included in the methodology.
- Providing Experience of precedents on how dependability of existing I&C systems of NPPs built in Europe

#### Task 3: IEC Codes & Standards

APR1000 I&C system is designed basically based on IEEE standards instead of IEC, which is European standards. It is needed to have a mapping between IEEC standards applied to the APR1000 and its corresponding IEC standards in order to show the conformance of APR1000 I&C design to EUR Rev.E. Alternative mapping approach could be comparison of existing I&C design (rather than IEEC standards) against the IEC standards starting from the upper level standards such as IEC 61513 and subsequent comparison with other lower level standards. The contractor shall provide consultation services for the following sub-items.

 Providing review result on the adequacy of Mapping Table on IEEE standards (applied to APR1000) with corresponding IEC standards to be provided by KEPCO E&C

(Additional IEC standards are to be listed up by the Contractor as required. The scope is limited to Diverse Protection System (DPS), Diverse Indication System (DIS), Qualified Indication and Alarm System (QIAS-P), and NSSS Process Control System (NPCS))

## Task 4: BDPS (Boron Dilution Prevention System) Design

Boron Dilution Prevention System is implemented in the APR1000 as Safety Class2. The information related to the instrumentations and sensors used as safety grade in Europe is needed, especially a sensing methods and safety grade sensors including advantage and disadvantage of direct method (e. g. measuring boron density) and indirect method (e, g. measuring ex-core detector signal) to detect boron dilution accident. The contractor shall provide consultation services for the following sub-items.

- Providing review result on the specific design requirement of the Boron Dilution Prevention
   System in Europe, specifically in EUR Rev.E
- Providing experience and information related to sensing methods and safety grade sensor including advantage and disadvantage to detect boron dilution accident directly (measuring boron concentration) or indirectly (measuring ex-core detector signal)

# Task 5: Bypass Leakage of Secondary Containment

APR1000 shall apply double containment to enhance radioactive material leak-tightness. The secondary containment building HVAC system serves the annulus area between the primary containment wall and the secondary containment wall to maintain the annulus area under a negative pressure to collect and filter any leakage from the primary containment prior to release to the environment. The contractor shall provide consultation services for the following sub-items.

- Providing review result on the APR1000 double containment design, specifically for leak-tightness, possible leakage paths of radioactive materials and role of secondary containment and HVAC systems in adjacent buildings, regarding compatibility with European requirements
- Providing experience and information applied to European nuclear power plants on this consultation item

# Task 6: Design of Core Catcher

Passive Ex-vessel corium retaining and Cooling System (PECS) will be implemented as a count measure features for severe accident in the APR1000. It consists of the core catcher, monitoring instrumentation, and two train gravity cooling water supply sub-system. In addition, a design concept

relying to In-Vessel molten corium Retention (IVR) is considered as an alternative. These two approach have their own strengths and weaknesses regarding conformance to EUR Rev.E requirements. The contractor shall provide consultation services for the following sub-items.

- Providing review result on APR1000 core catcher, which is coping feature for severe accident,
   regarding compatibility with European requirement
- Providing assessment result on In-Vessel Retention of corium, which is an alternate design concept to core catcher to meet European requirement
- Providing experience and information applied to European nuclear power plants on this consultation item

#### Task 7: Radiation Monitors in NPP with Combined Heat and Power Generation

The APR1000 design considers application of cogeneration, where the heat from a portion of extraction steam is transferred to the district heating (DH) system using DH heat exchanger. In order to enhance safety of the DH system, radiation monitoring is needed to be implemented to detect possible leakages of radioactive materials to DH system through DH heat exchangers and identified required operator actions (e.g. manual or automatic isolation) if radioactivity in DH system is exceeding predetermined values. The contractor shall provide consultation services for the following sub-items.

- Providing review result on APR1000 district heating design for radiation sensing system to monitor the release of radioactive materials from nuclear plant
- Providing experience and information (applied design, operating and licensing experience)
   related to protective features for radioactive material release in Europe

#### B. METHODS OF PERFORMANCE

#### Consulting Schedule

The period of the Contract shall be one(1) year from the Execution Date of this Contract.

#### Method of Performance

# A. Task 1: I&C Common Cause Failure (CCF) Design

- KEPCO E&C will provide the Defense-in-Depth and Diversity (D3) report to Contractor within four (4) months from Execution Date.
- Contractor shall review the D3 report and submit the draft consultation report including review results and proposals for improvement within three (3) months after receipt of the D3 report.

# B. Task 2: Methodology and Technical Background for Dependability Analysis of I&C Systems

 Contractor shall submit the draft consultation report for this task within five (5) months from Execution Date.

#### C. Task 3: IEC Codes & Standards

- KEPCO E&C will provide the Mapping Table to Contractor within two (2) months from Execution Date.
- Contractor shall review the Mapping Table and submit the draft consultation report including review results and additional IEC Standards list (if necessary) within three (3) months after receipt of the Mapping Table.

#### D. Task 4: BDPS (Boron Dilution Prevention System) Design

 Contractor shall submit the draft consultation report for this task within four (4) months from Execution Date.

#### E. Task 5: Bypass Leakage of Secondary Containment

 Contractor shall submit the draft consultation report for this task within four (4) months from Execution Date.

# F. Task 6: Design of Core Catcher

 Contractor shall submit the draft consultation report for this task within six (6) months from Execution Date.

#### G. Task 7: Radiation Monitors in NPP with Combined Heat and Power Generation

 Contractor shall submit the draft consultation report for this task within three (3) months from Execution Date.

Contractor shall keep confidential all the data and information from this Contract, and shall not divulge them to any third parties. Also, the Contractor shall destroy all documents, information, data, etc. provided by KEPCO E&C immediately after completion of all Tasks under the Contract.

#### <u>Deliverables</u>

KEPCO E&C will review deliverables for each task and give comments to Contractor. Iterative resolution phase shall continue until all the KEPCO E&C's comments are resolved for each Task. Contractor shall revise the deliverables after reflecting the resolved KEPCO E&C's comments and submit final deliverables to KEPCO E&C within one (1) month from KEPCO E&C's notice requesting for the submittal of final deliverables of each Task. However, Contractor shall submit all deliverables under this Contract before the end of the Contract Period which shall be one (1) year from the Execution Date.

# **APPENDIX**

# **TERMS and CONDITIONS**

- A. GENERAL TERMS AND CONDITIONS
- **B. NON-DISCLOSURE AGREEMENT**
- C. INTEGRITY PACT
- D. PAYMENT TERMS

# A. GENERAL TERMS AND CONDITIONS

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ARTICLE 29 EFFECTIVENESS

# **PREAMBLE**

This consulting services contract (the "Contract") is made and entered into effective as of this
day of, 2020 (hereinafter called the "Execution Date") by and between:
1. <b>KEPCO Engineering &amp; Construction Co., Inc.</b> ("KEPCO E&C"), a company duly organized and existing under the laws of the Republic of Korea ("Korea") and having its principal office of business at 269 Hyeoksin-ro, Gimcheon-si, Gyeongsangbuk-do, 39660, Korea; and
2
WITNESSETH:
WHEREAS, KEPCO E&C desires the Contractor to provide KEPCO E&C with certain services for;
WHEREAS, the Contractor offers to provide KEPCO E&C with such Services and to abide by the terms and conditions of this Contract;
WHEREAS, the Contractor has represented himself that it is technically qualified and experienced in the type of work as defined hereinafter and that it is professionally and financially capable of providing the Services for KEPCO E&C
WHEREAS, KEPCO E&C and the Contractor (hereinafter referred to, individually, a "Party" and collectively, the "Parties") desire to document their agreement to cover the conditions under which the Services shall be provided; and
WHEREAS, the representatives of the Parties possess proper and sufficient authority to agree.
NOW, THEREFORE, for and in consideration of the premises and the mutual covenants and

# ARTICLE 1. [DEFINITIONS]

- "Contract" means this agreement entered into between KEPCO E&C and the Contractor for the supply of the Services.
- "Contractor" means and its successors and assignees entering into this Contract with KEPCO E&C for the supply of Services in accordance with this Contract.
- "day" means calendar day unless expressly indicated as a working day.
- "KEPCO E&C" means KEPCO Engineering & Construction Company, Inc., having its headquarters in Gyeongsangbuk-do, Korea and its legal representatives, successors and assignees.
- "Korea" means the Republic of Korea.
- "Services" means all services to be performed by the Contractor in accordance with the terms and conditions of this Contract.

#### ARTICLE 2. [SCOPE OF THE SERVICES]

- 2.1 The Services to be performed by the Contractor under this Contract are described in Appendix A [Scope of Services and Method of Performance] attached hereto and made a part hereof.
- 2.2 Upon completion of all tasks in accordance with the schedule agreed between the Parties, the Contractor shall submit its work results including all deliverables to KEPCO E&C for its inspection and review. Upon acceptance in writing by KEPCO E&C of the work results, the Contractor shall be deemed to have completed the Services.

#### ARTICLE 3. [CONTRACT PRICE]

- 3.1 The maximum total amount to be paid by KEPCO E&C under the Contract and corresponding to the total contract price (the "Contract Price") shall be €\_\_\_\_\_ inclusive of labor cost and other direct costs. The Contractor agrees that any amount exceeding the above Contract Price shall not be paid by KEPCO E&C.
- 3.2 In case any increase or decrease in accordance with Article 7, "Revisions" or Article 13, "Termination" is required, such portion of increase or decrease shall be calculated based on the cost detail specified in Appendix B [CONTRACT PRICE & PAYMENT].

# ARTICLE 4. [TERMS OF PAYMENT]

4.1 The Contractor shall submit invoices to KEPCO E&C in accordance with the following payment schedule described in Appendix B [CONTRACT PRICE & PAYMENT].

- 4.2 KEPCO E&C shall pay the accepted amount to the Contractor within thirty (30) days after the receipt of the invoice by telegraphic transfer to the Contractor's bank account. For the avoidance of any doubt, no invoice shall be paid unless and until KEPCO E&C has received and accepted the result (including but not limited to deliverables such as technical consulting service report) of Services performed by the Contractor.
  - Should any adjustment be necessary as a result of questioned or disallowed items, such adjustment shall be added to or deducted from, as the case may be, any following invoice. If there remains a questioned item, KEPCO E&C reserves the right to withhold payment for the items in question.
- 4.3 Except for banking charges incurred by KEPCO E&C to pay Contractor in connection with Article 3 "Contract Price", all banking charges shall be for the Contractor's account.

# ARTICLE 5. [TAXES]

Except as otherwise specifically provided in this Contract, the Contractor shall bear and pay the corporate tax, personal income tax, inhabitant tax and any other taxes assessed on the Contractor, if any, by all local, state or national government authorities outside of Korea in association with the Services. Taxes levied by government authorities of Korea shall be borne by KEPCO E&C.

#### ARTICLE 6. [FORCE MAJEURE]

No Party shall be in default or shall be liable for any loss or damage due to delay in, or prevention of the performance of its obligations under this Contract if such delay or prevention results from the causes beyond such Party's control ("Force Majeure"). Force Majeure shall include, but are not limited to, the following:

- (a) Acts of God such as storms, floods or earthquakes;
- (b) Civil disturbances such as riots, strikes, revolutions, rebellions or insurrections;
- (c) Accidents or disruptions such as fires or explosions;
- (d) Any acts, laws, decrees, priorities, orders or regulations of any governmental authorities (national or local) including embargoes, quarantines, prohibitions of trade (including delays or failure to act), and delays or failures to issue any necessary license, permit or export or import authorization; or
- (e) Hostilities, invasions, wars (declared or not), or nuclear incidents.

#### ARTICLE 7. [REVISIONS]

7.1 KEPCO E&C shall have the right to request and subsequently to order the Contractor from time to time during the performance of the Services to make any changes to the Services for the modification, addition or deletion of any part of the Services, provided that such changes fall within the general scope of the Services.

The Contractor shall promptly inform KEPCO E&C if the change result in changes to schedule and/or price and the Parties shall in good faith negotiate such schedule and/or price changes.

7.2 Notwithstanding Paragraph 7.1 above, any changes made necessary due to any default of the Contractor in the performance of its obligations under the Contract shall not be deemed to be the changes under Paragraph 7.1 above and such changes shall not result in any adjustment of the Contract Price.

# **ARTICLE 8. [INDEMNITY]**

- 8.1 The Contractor shall indemnify, defend, and hold harmless KEPCO E&C and its successors and assigns, their directors, officers, agents and employees from and against any and all claims for loss or damages including bodily injury or death suffered by anyone whomsoever, or any property damage of third party, arising directly or indirectly or claimed to arise out of the Contractor's negligent conduct or negligent performance of the Services or resulting from the negligent performance by the Contractor's employees in the performance of the Services.
- 8.2 The Contractor, at its own expense, shall defend any suit or action brought against KEPCO E&C where the Contractor has agreed to indemnify and defend KEPCO E&C as provided in Paragraph 8.1 above, and shall pay all such judgments against each of them including reasonable attorney's fees and expenses arising and resulting therefrom. The Contractor shall keep KEPCO E&C fully informed of the progress of any such suits or actions, and shall agree to consult with KEPCO E&C at all reasonable times in regard to the progress of such suits or actions.

# ARTICLE 9. [WARRANTY AND LIABILITY]

- 9.1 The Contractor warrants that it shall completely perform the Services for KEPCO E&C according to the provisions of this Contract, especially Appendix A [Scope of Services and Method of Performance].
  - In the event the Contractor ceases the performance of the Services due to any other reasons than those permitted by provisions of the Contract, KEPCO E&C may claim damages arising out of or resulting from such nonfulfillment based on the provision of Paragraph 8.1. In such case, KEPCO E&C shall have right to reject the payment invoiced by the Contractor for the performance of the Services.
- 9.2 The Contractor warrants that it shall perform the Services for KEPCO E&C making commercially utmost use of its skill and experience in an efficient, economic and thorough manner within its areas of expertise, in accordance with sound and currently acceptable engineering and management standards, practices, procedures, applicable laws and regulations.

- 9.3 In the event any of the Contractor's Services do not conform to the standards set forth in Paragraphs 9.1 and 9.2 above, KEPCO E&C shall promptly notify the Contractor of any nonconformity. The Contractor shall, at its own expense, upon receipt of written notice from KEPCO E&C, perform any additional Services necessary to correct the nonconformity so that negligent errors or omissions therein are removed to the reasonable satisfaction of KEPCO E&C. Any claims by KEPCO E&C for re-performance of the Contractor's Services shall be made within one (1) year from completion of such Services.
- 9.4 The Contractor's aggregate limit of liability for the Services, arising from violation of its obligations under this Contract, shall not exceed the total Contract Price set forth in Article 3.

#### ARTICLE 10. [PERFORMANCE GUARANTEE]

As a security for satisfactory performance of its obligation under this Contract, the Contractor shall provide KEPCO E&C with an unconditional irrevocable performance guarantee in a form of a bank guarantee or standby L/C furnished by a bank designated by KEPCO E&C. The guaranteed amount shall be ten percent (10%) of the Contract Price, and the duration shall be at least from Execution Date of this Contract until thirty (30) days after the end of Contractor's Services period described in Article 17 [CONTRACT PERIOD].

# ARTICLE 11. [OWNERSHIP OF DATA AND PROPRIETARY INFORMATION]

- 11.1 All the reports and technical documents developed for KEPCO E&C by the Contractor under this Contract shall become the property of KEPCO E&C.
- 11.2 The Contractor shall keep confidential all the data and information provided and designated by KEPCO E&C as confidential or proprietary and shall not divulge them to any third parties.
- 11.3 Contractor shall retain any pre-existing intellectual property ("IP") and hereby grants to KEPCO E&C and its affiliates an irrevocable, non-exclusive, fully paid license to use the Contractor's IP and/or any embedded IP to the extent necessary to utilize results of the Services under this Contract.

# ARTICLE 12. [SUSPENSION AND EXTENSION]

- 12.1 KEPCO E&C shall have the right to suspend or extend the completion of the Services for any reason upon fifteen (15) days prior written notice to the Contractor.
- 12.2 The completion shall be suspended or extended by a period of time reflecting the effect of the suspension or extension.

12.3 The Contractor shall resume the suspended Services within the earliest reasonable date after receipt of KEPCO E&C's request to do so, but not later than thirty (30) days following receipt of such notice.

# **ARTICLE 13. [TERMINATION]**

- 13.1 KEPCO E&C may at any time terminate the Contract, with or without cause by giving the Contractor a fifteen (15) days' notice in writing ("Termination Notice"). Upon receipt of KEPCO E&C's Termination Notice, the Contractor shall either immediately or upon the date specified in the Termination Notice cease all further Services.
- 13.2 The Contractor shall be paid compensation for the Services performed up to the date of termination except in case the termination is made due to the Contractor's default.
- 13.3 In the event termination as described in Paragraph 13.1 above is made due to the Contractor's default or breach of obligations hereunder, the Contractor shall be liable to KEPCO E&C for all loss, damages and expenses as a result of such termination. In such case, KEPCO E&C shall have the right to reject payment to the Contractor.

# ARTICLE 14. [ASSIGNMENT AND SUBCONTRACT]

- 14.1 Neither this Contract nor the benefits or obligations under this Contract shall be sold, assigned or transferred by either Party to any third parties including subsidiary or affiliated companies without the prior written approval of the other Party, with such approval not to be unreasonably withheld by either. In the event the approval is given by either for assignment or transfer, such an approval shall not relieve either from any liability and/or responsibility under this Contract.
- 14.2 Any subcontract, modification or termination hereof relating to the performance of the Services by the Contractor shall not be made without the prior written approval of KEPCO E&C.

# ARTICLE 15. [DISPUTES AND ARBITRATION]

- 15.1 All disputes, controversies or differences which may arise between the Parties, out of or in relation to or in connection with this Contract, or for the breach thereof, if not settled by mutual agreement, shall, at the option of the initiating Party and upon written notice to the other Party, be finally settled by arbitration in Seoul, Korea in accordance with the International Arbitration Rules of the Korea Commercial Arbitration Board and under the laws of the Republic of Korea.
- 15.2 The award rendered by the arbitrator(s) shall be final and binding upon both the Parties concerned.

# ARTICLE 16. [GOVERNING LAW]

All discrepancies, controversies or differences, or the validity, construction and performance of the Contract shall be governed by and interpreted in accordance with the laws of the Republic of Korea, without regard to its conflict of laws principles.

# ARTICLE 17. [CONTRACT PERIOD]

The period of the Contractor's Services shall be \_\_\_\_\_ from the Execution Date. However, notwithstanding the forgoing, the contract period shall be regarded as the period from the Execution Date of this Contract to the expiration date of all rights and responsibilities including the Contractor's warranty, liability, settlement of all tax obligations, and any other obligation under this Contract.

# ARTICLE 18. [LIQUIDATED DAMAGES FOR DELAY]

In the event that, for reasons attributable to Contractor, the Services are delayed beyond the completion date specified in the Contract documents, the Contractor shall pay liquidated damages to KEPCO E&C, not as a penalty, in an amount of zero point one two five (0.125) percent of the amount of each delayed portion for each day of delay. The liquidated damages shall not exceed ten (10) percent of the total Contract Price.

KEPCO E&C is entitled to deduct such liquidated damages from any payment due to the Contractor.

# ARTICLE 19. [SEVERABILITY]

In the event that any articles, provision, portion or application thereof is held to be unenforceable or invalid by any court of competent jurisdiction, the validity and enforceability of the remaining provisions, portions or applications thereof shall not be affected thereby.

## **ARTICLE 20. [NOTICE]**

All notices, communications and approvals required or permitted to be given hereunder shall be given in writing in English and shall be made to the address of the parties concerned in one of the following means;

- Personal delivery to the designated representative of each of the parties;
- by registered post; or
- by telefax or email

the specific designation of the parties as set forth below;

If to KEPCO E&C:
KEPCO Engineering & Construction Co., Inc.
269, Hyeoksin-ro, Gimcheon-si,
Gyeongsangbuk-do, 39660, the Republic of Korea
Attention: Mr
Tel: +82-54-421
E-mail:@kepco-enc.com
If to the Contractor:
Attention:
F-mail·

Fax No.:

Either Party hereto may change its address by a notice given to the other Party in the manner set forth immediately above. Notice given as herein provided shall be considered to have been given upon receipt.

# ARTICLE 21. [INFRINGEMENT OF PATENTS]

In the event any suit, claim, action or proceeding against KEPCO E&C or their designee arises from allegations that any proprietary rights arising from the Services provided by the Contractor under this Contract, including without limitation the computer programs, or any portion thereof constitute infringement of any patent, copyright, trade secret, Know-How, or any other proprietary right of any third party, the Contractor shall defend KEPCO E&C's or their designee's right, title and interest to the same against such suit, claim, action, or proceeding at the Contractor's expense and shall hold KEPCO E&C and their designee harmless from any damages or losses of any kind including without limitation legal fees. If as a result of such suit or proceeding, the proprietary rights or any part thereof is held to constitute an infringement and the use of said proprietary rights, or any part thereof, is enjoined, the Contractor promptly shall, at his option and expense, either procure for KEPCO E&C the right to continue using said proprietary rights, or the part thereof, or replace the same with non-infringing proprietary rights acceptable to KEPCO E&C.

#### ARTICLE 22. [ACCEPTANCE OF THE SERVICES]

22.1 The Contractor shall give KEPCO E&C written notice as soon as it has completed the Services. Within fifteen (15) calendar days after receipt of such notice, KEPCO E&C shall notify in writing whether to accept those Services or request Contractor for correction of any unfinished work or deficiencies.

- 22.2 If the Contractor performs or corrects the unfinished work or deficiencies and notifies KEPCO E&C that all such items of unfinished work or deficiencies have been corrected, KEPCO E&C shall give the Contractor the written notice of acceptance ("Acceptance of Services") within fifteen (15) calendar days thereafter.
- 22.3 If KEPCO E&C fails to give notice of acceptance in the manner and at the times provided above, the Services shall be deemed to have been accepted by KEPCO E&C for all purposes of this Contract. The Acceptance of Services by KEPCO E&C shall in no event be considered a release of the Contractor's responsibilities, within the warranty period specified in Article 9.

#### ARTICLE 23. [RESPONSIBILITIES OF THE PARTIES]

- 23.1 KEPCO E&C's Responsibilities
- 23.1.1 KEPCO E&C shall provide available, data, criteria and other necessary information to the Contractor in a reasonably expeditious manner for the Contractor to perform the Services.
- 23.2 The Contractor's Responsibilities
- 23.2.1 The Contractor shall obtain necessary customary local licenses, permits, authorizations, customs clearances and handling, and agreements required for the Contractor to do business in the jurisdiction in which the Services are performed. The costs related to this Paragraph shall be for the Contractor's account.
- 23.2.2 The Contractor, its employees and agents shall comply with all legal provisions, regulations and safety rules for work applying in the territories in which the Services are carried out.

#### ARTICLE 24. [LANGUAGE AND UNITS]

The text of this Contract, technical specification or documents shall be made in English. The metric system and units shall be used for all principal instruction, instrumentation and other operating parameters. However, the foot-pound system can also be used in addition for reference.

# ARTICLE 25. [TIME ZONE/TIME PERIOD]

Any reference in this Contract to a specific time shall refer to Korea Standard Time (KST).

# ARTICLE 26. [DRAFTING]

Each of the Parties hereto acknowledges that each Party was actively in the negotiation and drafting of this Contract and that no law or rule of construction shall be raised or used which the provisions of this Contract shall be construed in favor or against any Party hereto because one is deemed to the author thereof.

# ARTICLE 27. [ENTIRE AGREEMENT]

This Contract constitutes the entire agreement and understanding between the Parties as to the subject matter of this Contract and merges and supersedes all previous discussions, agreements and understanding of any and every nature between them. This Contract shall not be amended except by written agreement of the Parties.

### ARTICLE 28. [CONTRACTUAL INTEGRITY]

- 26.1 The Contractor shall not offer or grant any bribes or undue benefits, including money, other articles, or treats, either directly or indirectly to any officials concerned, in the process of bid, award of contract, execution or performance of contract.
- 26.2 The Contractor shall not engage in any unfair practices that unreasonably undermine fair competition in a bid, such as bid-rigging or collusion to render the award of contract to a particular participant.
- 26.3 In the event of violation of the above, KEPCO E&C shall be entitled to:
  - 1) terminate any contract with the Contractor including this Contract; and/or
  - prohibit the Contractor from participating in any bids invited by KEPCO E&C for the period of two (2) years, and the Contractor shall not raise any objections or file any civil or criminal claims against KEPCO E&C for any measures taken by KEPCO E&C.
- 26.4 The Contractor shall be deemed to have signed and accepted the Integrity Pact attached hereto by signing this Contract.

#### **ARTICLE 29. [EFFECTIVENESS]**

This Contract shall be entered into full force and effect upon the signing of this Contract by the parties hereto.

**IN WITNESS WHEREOF,** the Parties hereto have caused this Contract to be executed in duplicate each of which is deemed an original, by their respective duly authorized representatives as of the date first above written in the Preamble.

<b>KEPCO Engineering &amp; Construction Co., Inc.</b>	
By:	By:
Name: Yoon Donggyu	Name:
Title: General Manager	Title:

#### B. NON-DISCLOSURE AGREEMENT

THIS NON-DISCLOSURE AGREEMENT (the "Agreement") is made and entered into as of this [Date, Month, and Year] (the "Effective Date"), by and between:

KEPCO Engineering & Construction Co., Inc., a company organized and existing under the laws of the Republic of Korea, having its principal place of business at 269, Hyeoksin-ro, Gimcheon-si, Gyeongsangbuk-do, 39660, Republic of Korea ("**KEPCO E&C**"),

and

[Company Full Name], a company organized and existing under the laws of [Country], having its principle place of business at [Address] ("Company Abbreviated Name").

KEPCO E&C and the [Company Abbreviated Name] are individually referred to as a "Party", and collectively as the "Parties".

# **RECITALS**

WHEREAS,	the	<b>Parties</b>	have	signed	Contract	ш	,
("Purpose"):	and			_			

WHEREAS, the Parties anticipate that Contract will involve the disclosure of confidential or proprietary information owned or controlled by KEPCO E&C ("Disclosing Party") to the [Company Abbreviated Name] ("Receiving Party") and desire to undertake certain measures to protect any such information from unauthorized use or disclosure.

NOW, THEREFORE, in consideration of the foregoing premises and the mutual covenants provided herein, and other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, the Parties hereby agree as follows:

- 1. "Confidential Information" shall mean any information, ideas or materials now or hereafter owned by or otherwise in the possession or control of, or otherwise relating to, the Disclosing Party of a confidential nature, including but not limited to proprietary samples, designs, specifications, calculations, data, reports, drawings, process, formula, method, know-how, trade secret, business-related information, technical information, marketing information, engineering information, construction information, and other information relating to Purpose, which may be disclosed by the Disclosing Party to the Receiving Party in connection with the Purpose. Confidential Information shall also include all copies, summaries, analyses, or extracts of such information, ideas or materials disclosed by the Disclosing Party, based thereon or derived therefrom.
- 2. The Receiving Party shall:
  - (a) limit the dissemination of Confidential Information within its organization to only those employees having a need for access,
  - (b) protect Confidential Information from disclosure to third parties with at least the same degree of care (but no less than a reasonable degree of care) as it uses to protect its own Confidential Information of like kind from unauthorized use or disclosure.

- (c) use Confidential Information only for the Purpose expressly stated above, and
- (d) not copy or reproduce the Confidential Information without the written consent of the Disclosing Party, except for such copies as may be required for the Purpose.
- 3. The obligations of Paragraph 2 above shall survive termination of this Agreement, provided that such obligations shall not apply to any information that the Receiving Party can prove by corroborated evidence:
  - (a) was or is developed for the Receiving Party by persons who had not been exposed to Confidential Information:
  - (b) was publicly available at the time of disclosure or became publicly available through no fault of the Receiving Party and without breach of this Agreement by the Receiving Party or any affiliate, agent, consultant or employee of the Receiving Party; or
  - (c) was or is rightfully received by the Receiving Party from a third party without limitation or restriction on its disclosure at the time of disclosure by such third party and without breach of this Agreement.

The Receiving Party shall not use nor disclose Confidential Information in reliance on any of the foregoing exemptions without notifying the Disclosing Party in writing of its intended reliance at least fourteen (14) days in advance of use or disclosure. Confidential Information shall not be deemed to be within the foregoing exceptions merely because it may be embraced by more general information in the public domain or in the Receiving Party's possession. Confidential Information embodied within a combination of features available in the public domain or in the Receiving Party's possession shall not be deemed to be within the foregoing exceptions unless the combination of features itself is in the public domain or in the Receiving Party's possession.

- 4. No information proprietary to the Receiving Party shall be disclosed to the Disclosing Party under this Agreement. All information, supplies or equipment delivered to the Disclosing Party by the Receiving Party hereunder shall be available for unrestricted use or replication by the Disclosing Party without further compensation to the Receiving Party.
- 5. The Receiving Party shall not manufacture, reproduce, redesign, alter, modify, break-down, disassemble, reverse engineer, analyze or otherwise attempt to derive the material composition or the physical characteristics of the underlying information, structure or ideas of any tangible materials received as Confidential Information from the Disclosing Party. The Receiving Party may not use the Confidential Information to perform any services outside the scope of this Agreement. Upon request by the Disclosing Party, the Receiving Party shall promptly destroy or return all tangible Confidential Information remaining in its possession.
- 6. No warranty, license, right or immunity under any patent or other intellectual property is intended to be granted to the Receiving Party by this Agreement.
- 7. This Agreement shall be considered to have been entered into and construed in accordance with the laws of the Republic of Korea, without regard to conflict of laws principles.
- 8. This Agreement shall be effective from the Effective Date hereof, and continue in effect for 10 years from the completion and/or termination of the Contract, KCN04-20-XX, whichever is the later, provided that all obligations attaching to Confidential Information disclosed shall survive such termination.

- 9. The Receiving Party warrants that any subcontractor of the Receiving Party having access to or contact with any Confidential Information shall be subject to an agreement having obligations of confidentiality which are at least as restrictive as those contained herein. The Receiving Party warrants that such subcontractor shall have access only to such Confidential Information which is absolutely necessary to enable subcontractor to perform its duties in accordance with this Agreement.
- 10. All tangible information, including drawings, designs, specifications, calculations, blueprints, flowsheets, sketches, descriptions, data, samples and other tangible material pertaining to the Confidential Information shall remain the property of the Disclosing Party. At request of the Disclosing Party, the Receiving Party shall promptly return all such tangible information, and all copies thereof, to the Disclosing Party.
- 11. The Receiving Party agrees to comply, and do all things necessary for the other Party to comply, with all applicable laws, regulations and ordinances, including, but not limited to, any applicable export control laws and regulations, insofar as they relate to the activities to be performed under this Agreement. Each Party agrees to obtain any required government approvals prior to export of any technical data disclosed to it or the direct product related thereto.
- 12. This Agreement contains the entire agreement between the Parties as to the subject matter hereof and supersedes and replaces all previous written or oral understandings, agreements, negotiations, commitments, or representations, and any other writings or communications in respect to such subject matter. No amendment of this Agreement shall be effective unless in writing and signed by both of the Parties.
- 13. The Receiving Party agrees that money damages shall not be a sufficient remedy for any breach of this Agreement by it and that in addition to all other remedies which may be available, the Disclosing Party shall be entitled to specific performance and injunctive or other equitable relief, without bond, as a remedy for any such breach or threatened breach in accordance with the procedures set out in Paragraph 14 of this Agreement.
- 14. Any dispute or claim, whether based on contract, tort, statute or other legal or equitable theory arising out of or in connection with this Agreement, if not settled by mutual agreement, shall be finally settled by arbitration in Seoul, Korea in accordance with the International Arbitration Rules of the Korean Commercial Arbitration Board by one or more arbitrators appointed in accordance with the said Rules, provided that a Party may seek appropriate interim injunctive relief pending the formation of the arbitration panel. In the event of any legal action to enforce this Agreement or to recover damages or other relief on account of any breach of this Agreement, the prevailing party will be entitled (in addition to any and all other remedies) to recover any and all costs and expenses (including, without limitation, reasonable attorneys' fees) that it may incur in connection with such action.

**IN WITNESS WHEREOF**, the Parties hereto have executed this Agreement as of the date first above written.

KEPCO Engineering & Construction Co., Inc.	ABC
Ву	Ву
Name:	Name:
Title:	Title:

# C. INTEGRITY PACT

## **Integrity Pact**

In connection with conducting any business transactions with KEPCO Engineering & Construction Co., Inc. (KEPCO E&C), the undersigned hereby covenants the following:

- 1. We shall not offer or grant any bribes or undue benefits, including money, other articles, or treats, either directly or indirectly to any officials concerned, in the process of bid, award of contract, execution or performance of contract.
- 2. We shall not engage in any unfair practices that unreasonably undermine fair competition in a bid, such as bid-rigging or collusion to render the award of contract to a particular participant.

We acknowledge that, in case of breach of the above covenants, any of our contract with KEPCO E&C may be terminated and we may not be allowed to participate in any bidding invited by KEPCO E&C.

We will fully comply with this Integrity Pact, and will not raise any objections or file any civil or criminal claims against KEPCO E&C for the measures taken by KEPCO E&C.

By:	
Name:	 
Title	

# C. PAYMENT TERMS

Contractor shall submit invoices to KEPCO E&C as below:

- a. Seventy percent (70%) of the Contract Price after submission of all draft reports for each of the Tasks
- b. Thirty percent (30%) of the Contract Price after all final reports are approved by KEPCO E&C.

KEPCO E&C shall pay the Contractor within 30 days after the reception of the invoice from the Contractor.