**NACAG Public Bid**

 **RE- Questions and Answers**

1. The purge flow rate available in "ANNEX-001-Technical specifications of the nitric acid plant" is 360 kg/h. Is it possible to use this flow rate only partially (i.e. between 50% and 80%) and let the Customer use the excess for other services?

*Answer: Yes*

1. The following documentation is requested for metallic structures

A1290-01-90-C03-213 Typical Anchor Bolt Detail.

A1290-01-90-C03-214-0 Typical Platforms and Ladders.

*Answer: See attached documentation in the technical information package (in dropbox) for companies that have signed the confidentiality agreement.*

1. Is it assumed that drawing A1290-01-10-C03-401 Rev 0 corresponds to the As-Built revision of the foundation? Is this assumption correct?

*Answer: The plan named is the construction plan, we don’t have a construction compliant plan.*

1. The following documentation from the revamp area is requested:
* classification of existing areas,
* of the fire water system,
* of the F&G system

*Answer:*

* *Existing area classification: See attached documentation in technical information package (in dropbox) for companies that have signed confidentiality agreement.*
* *Fire and F&G water system: Willn’t provided at this stage of the project.*
1. Indicate if there are APASA's own safety regulations that must be taken into account for the safety of the process.

*Answer: No*.

1. Indicate whether risk studies, such as HAZID, HAZOP, LOPA or SIL assignment, will be performed by APASA or should be considered as part of the supply.

Answer: Don’t consider.

1. The scope of the revamp does not identify tasks related to modifications to the existing atmospheric protection systems, general or localized lighting, outlets, tracing and cathodic protection. Please confirm. If any of the above mentioned systems are to be included, please submit additional documentation.

Answer: Don’t consider.

1. Documentation is requested from the revamp area regarding the existing grounding system.

*Answer: See attached documentation in the technical information package (in dropbox) for companies that have signed the confidentiality agreement.*

1. Is it possible to present forms of payment different from those in the model contract in order not to incur financing cost overruns? To propose neutral cash flow for the project.

*Answer: The ratio established in the public bid documents is maintained.*

1. INCOTERM Catalyst Can we offer INCOTERM DAP for catalyst supply? (DAP: Delivery on site by us and the customer APASA will pay the import taxes and customs handling).

*Answer: APASA absorbs import duty payments if required.*

1. Are there any plant access restrictions or additional security measures that contractors should consider?

*Answer:* *See the documents annexes 002 and 003 of the public bid.*

1. Does APASA have recommended suppliers or quality standards for materials and equipment?

*Answer: Chinese pipes aren’t accepted, see specifications in the public bid.*

1. Is APASA expected to purge and/or clean existing equipment prior to disassembly, or will this be the contractor's responsibility?

*Answer: Yes, it is done by APASA.*

1. What in-plant operating or maintenance constraints should be considered in planning the schedule?

*Answer: The execution of the plant shutdown will be executed in 2026, as specified in the public bid documents.*

1. During plant shutdowns, is there flexibility in 24-hour shifts or specific staffing requirements? *Answer: As indicated in the specifications and in question 53 of the previous Q&A document, during plant shutdowns we work 7 days a week for 24 hours to meet scheduled deadlines. Regarding the specific personnel requirements, please read annexes 002; 003 and the public bid document for detailed specifications for personnel to enter the plant.*
2. What detailed corrosion, temperature and pressure resistance specifications must piping materials meet?

*Answer: The piping class document must be complied with. See attached documentation in technical information package (in dropbox) for companies that have signed the confidentiality agreement.*

1. What leak testing and non-destructive testing procedures are required by APASA for piping and fittings prior to commissioning?

*Answer: The piping class doc. and doc: A1290-01-90-Q09-ESP-001\_4 END BY PIPING CLASS must be complied with.*

1. Are there any special APASA sealing or alignment requirements to connect the new system to the existing system to avoid leaks?

*Answer: Non-destructive testing, hydraulic testing, torquing, pre-commissioning, commissioning and start-up support.*

1. What are the specific load and vibration absorption requirements for foundations?

*Answer: See attached documentation in the technical information package (in dropbox) for companies that have signed the confidentiality agreement.*

1. Are additional soil studies required to support the piping infrastructure and equipment?

*Answer: see attached documentation in the technical information package (in dropbox) for companies that have signed the confidentiality agreement.*

1. Are there specific guidelines for the transportation and installation of heavy equipment?

*Answer: This information will be provided to the successful public bid on this project.*

1. What corrosion protection standards should be applied to structures and pipelines?

 *Answer: See attached documentation in the technical information package (in dropbox) for companies that have signed the confidentiality agreement.*

1. Does the customer have a specific preference on the heating method?

*Answer*: *We do not have a specific preference on the heating method.*

1. Is any specific certification or type of paint required to comply with safety or environmental regulations?

*Answer*: *See attached documentation in the technical information package (in dropbox) for companies that have signed the confidentiality agreement.*

1. What are the specific insulation and protection requirements for piping wiring and instrumentation?

*Answer: Area classification Zone 2, Group IIC, T2; safety instruments must be SIL 3 certified: intrinsically safe and all instruments must be ip68 certified.*

1. What compatibility and communication protocols must be ensured to integrate the control system with the current system in the plant?

*Answer: Process instrumentation: two-wire 4-20 ma + HART protocol + shielded instrumentation cable. Communication instrumentation: modbus rtu + shielded cable.*

*The sampler communicates with the dcs by modbus or ethernet protocol.*

*Compatibility with ABB's DCS 800xA.*

1. General plant drawings o Plant layout and abatement system installation areas. o 3D piping model with specific location of the equipment and abatement system installation areas.

*Answer: See attached documentation in the technical information package (in dropbox) for companies that have signed the confidentiality agreement.*

1. Piping and Instrumentation Drawings (P&ID) o Process and instrumentation diagrams, detailing gas flow and connections, valves, meters and control points. Memory with references and nomenclature to understand the P&ID diagrams.

*Answer*: *See attached documentation in the technical information package (in dropbox) for companies that have signed the confidentiality agreement as well as see all the questions and answers in the document uploaded on the website above.*

1. Structural drawings of foundations and supports for existing piping and equipment to be removed, with dimensions and materials.

*Answer*: *See attached documentation in the technical information package (in dropbox) for companies that have signed the confidentiality agreement.*

1. Technical specification of the concrete slab on which the equipment to be removed is located.

*Answer*: *See attached documentation in the technical information package (in dropbox) for companies that have signed the confidentiality agreement.*

1. Details of existing piping and supports: paths, attachment points, expansion joints, and connections to existing facilities.

*Answer*: *See attached documentation in technical information package (in dropbox) for companies that have signed confidentiality agreement.*

1. Dimensions and weights of equipment to be removed

 *Answer*: *See attached documentation in technical information package (in dropbox) for companies that have signed the confidentiality agreement.*

1. Technical documentation of materials for piping, valves, supports and thermal insulation, considering corrosion, pressure and temperature resistance conditions.

*Answer*: *See attached documentation in the technical information package (in dropbox) for companies that have signed the confidentiality agreement.*

1. Details of corrosion protection and thermal insulation of pipelines.

*Answer*: *See attached documentation in technical information package (in dropbox) for companies that have signed the confidentiality agreement.*

1. Electrical diagram and instrumentation for connection of equipment and sensors, indicating voltage requirements and compatibility with the central control system.

*Answer*: *See attached documentation in the technical information package (in dropbox) for companies that have signed the confidentiality agreement.*

1. Layout of cable trays to be used, indicating the location of the control station.

*Answer*: *See attached documentation in the technical information package (in dropbox) for companies that have signed the confidentiality agreement.*

1. Control diagrams and configuration of sensors and actuators for N2O and NOx monitoring.

*Answer*: Not applicable to the scope at this stage of the project.

1. Soil study results, indicating load capacity and design recommendations.

*Answer*: *See the attached documentation in the technical information package (in dropbox) for companies that have signed the confidentiality agreement.*

1. Access plans for equipment transport, safety areas and assembly details, especially in restricted or difficult to access areas.

*Answer*: *See the attached documentation in the technical information package (in dropbox) for companies that have signed the confidentiality agreement, marked on the plot plan*

1. Specific requirements for the integration of the gas abatement and preheating control system with the central system, including communication protocols and software compatibility.

*Answer*: *idem question 26.*

1. What is the maximum allowable pressure required for the SCR?

*Answer*: 9 barg

1. Is the provision of natural gas lines for the tail gas heater contemplated within the scope of this bid?

*Answer*: *Yes*

1. Could you please provide technical information about the natural gas installation? Please indicate the necessary piping route to be supplied.

*Answer: Not applicable at this stage of the project, as answered in the previous Q&A document, TIE IN for gas connections are found.*

1. Is it necessary to include natural gas pressure and flow measurement and monitoring systems as part of the supply? If so, what technical specifications must they meet?

*Answer:: For the supply* of NG for the chiller no, but for the case of the heater if it is needed if it will be included. See document in dropbox doc. of pipping class.

1. Is any pretreatment of the natural gas tail (filtering, pressure reduction, other) required prior to use in the heater?

*Answer: No.*

1. What are the expected operating conditions (temperature and pressure) at the connections for the tail gas heater?

*Answer:* *These were answered in the previous question and answer document, also see Annex 001-Plant Information.*

1. Can performance and hidden defects guarantees be offered by means of a bond for 10% of the contract value (change from 30% to 10%)?

*Answer*: *It remains at 30%.*