

Dąbrowa Górnicza, 27.11.2020

Answers to questions received during the tender process no. 1/0099_18/2020

Regarding the request for quotation no. 1/0099_18/2020 concerning **purchase, deliveries (in accordance with DDP INCOTERMS 2010), installation and start-up of the pilot installation of the gas cleaning plant for Blast Furnace No. 2 in Dąbrowa Górnicza.**

QUESTION	ANSWER
1. Question how to access the AMP Health and Safety Standards.	Description is presented in the additional appendix "Instructions for the Contractor"
<p>2. Questions regarding an appendix for 3D scanning.</p> <ul style="list-style-type: none"> - The measurement accuracy by using GPS (20mm) is in contradiction with the required measurement accuracy. - Due to the distortion of a global coordinate system the usage of such a system is not target-oriented for steel plants. A local system based on the plant coordinate system is typical here - File names of the 360° images must be identical to the file names of the scans in order to ensure the readability of the scans using 3D scanner software. - Viewer software (Autodesk ReCap or Z+F Software) has no possibility to export DWG files. This requires licensed applications 	<p>The updated appendix "TLS_PL_V3"</p> <p>Answers to some of the questions also below:</p> <ul style="list-style-type: none"> - The measurement accuracy required at 20mm is acceptable. The matching error must be indicated in the attached report. Control points must be evenly distributed throughout the facility. The accuracy of determining the control points must not be worse than 20mm in terms of location and 20mm in height. - Local coordinate system might be better in a number of cases, but using EPGS systems allow us to use data in e.g. GIS. In AMP Dąbrowa Górnicza there is EPSG system EPSG2177 for DG & Slask - OK. We proposed shorter file names. Please make sure that a drawing with location of 360 images/ scan stations is provided. - PoTree can be used in this case. PoTree is open source (free) solution. With a "bird's eye view". PoTree allows exporting DXF files which can be read by CAD files. The other type of TLS data viewer must allow "panoramic view" (e.g. TruView, RiPano). PoTree projects must be created. You need LAS files and PoTree converter. Recap files are OK. LFM can be additionally added to the project
3. Question about list of vendors for equipment (e.g. valves, pumps, etc).	Please provide list of potential vendors for equipment
4. Question about how to deliver BE part of	According to appendix no 8 to technical specification, you need to provide element form points I and II within 8 weeks from contract signature. Other



documentation needed for building permit.	elements indicated in points III-V to be delivered as per description in the appendix no 8.
5. Question about connections of new clean gas main with TRT main bypass valve and sub bypass valve.	Connection of new clean gas main with TRT main bypass valve and sub bypass valve has to be executed without using old sections of current 2200 mm diameter pipe. Only section which can be reused is 9400 mm section where MBV/SBV with outlet in direction of TRT are installed. Connection to blast furnace gas low pressure pipe has to be done downstream from MBV SBV section. Please also refer to the illustration presented in 10. Appendix - Battery limits.
6. Question regarding geological documentation	The recent geological analysis was done in 2017 when top gas recovery turbines were erected. Please find documentation under following link (expires 11.12.2020): https://arcelormittal-my.sharepoint.com/:u:/g/personal/a0250484_arcelormittal_com_pl/Eea-6jRt5KJHgLJNi4gyLxUBH7y3crvaTMVMRtqoc5P5IQ?e=fguaul
7. Question regarding annular gap element actuating cylinder replacement	AMP expect the design allowing to replace any of the cylinder for actuation of AGE without entering the scrubber vessels. Cylinders must be placed in non-pressure part of installation.
8. Question regarding form of deviations from concept engineering	Please describe in your offer the major changes versus concept engineering documentation shared by AMP
9. Question regarding electrical power supply for low voltage	We accept supplying medium voltage from S-107 and medium voltage from T-107B
10. Question regarding crane sharing	From the preliminary schedule crane should be shared for 9 working days to perform the jobs related to BLT hoppers. Please consider and indicate the cost for 9 working days of main crane in your offer.