

Petrosa FA-Platform PAGA (Public Address & General Alarm) System Replacement

The FA-Platform is South Africa's only offshore oil and gas processing facility built some 25-30 years ago. The aged PAGA PA system is in urgent need of being replaced.

1. Scope of Work:

- Pre-Testing, acceptance, shipping, and installation.
 - The company must assemble the new equipment at their location ready for checking and acceptance by one of our technicians to make sure that the equipment meets the criteria laid out in this document.
 - If the equipment is found lacking, then any issues will be resolved, and our technical staff will once again access the equipment until they are satisfied that the equipment meets all the standards and functionalities requested in this document.
Once we are satisfied with the equipment, then it can be shipped to our warehouse in Mossel Bay, and we will in turn ship it to the FA Platform for fitment.
- Once the equipment has arrived on the FA platform and the necessary prearrangements have been concluded, the technician from your company will be flown from George airport to the FA Platform to commence the installation of the new system/systems.
- On completion of the installation, testing and the successful commissioning of the equipment, the technician will be flown back to the George airport.
- Training and document handover must be completed before the technician leaves the FA Platform or a date and venue must be set for this training to take place.

2. System Components:

- The PA system needs to consist of two identical systems 'A' and 'B'.
- These two systems need to operate as one large system. They must be configured to be totally independent but interlinked to work as one system (audio to be synchronised) with complete fault monitoring capabilities.
- Each independent system runs half the horns / speakers, so that if one system is lost, only half the speakers / horns will be lost.
- The current system has **28** audio amplifiers per system connected each to its own loop of speakers / horns. 80% of them are 200W rated, the others are 400W rated.
- The amplifiers have a 100V output with various impedances due to the nature of the configuration of the loops.
- The system has four microphone stations (Radio Room - panel mounted, OIM – desk mounted, Control – panel mounted, Shift Supervisor – desk mounted) within the accommodation module (M08), and four remote microphones, one at each of the four Lifeboat stations.
- The current system has four Zones – All Areas, Drilling, Production and Accommodation, excluding the Cabins. The system also make use of Emergency All Call buttons.
- The Lifeboat stations are outside and will be subjected to the weather. The microphones at the lifeboat stations while not in an EX-zone, need to be EX rated, or need to be installed in an appropriate enclosure.

- The four Lifeboat stations are split, two are on the Production Deck some $\pm 30\text{m}$ below (M08) whilst the other two are on the Cellar Deck some $\pm 50\text{m}$ below (M08). These stations are configured to announce to All Areas.
- System “A” is fed from 110VAC (UPS).
- System “B” is fed from 220VAC (Emergency Power) with a Step-up transformer (110VAC – 220VAC).
- Step-up transformers may need to be supplied if the new equipment is rated at 110VAC, as 220V (UPS) feed is not available at each location.
- The current system has an input to mute the audio output on both “A” and “B” units.
- The two PA systems are installed in the Accommodation module (M08), one resides on the first floor (M08 Level 1) adjacent to the Control room, whilst the other system resides on the fifth floor (M08 Level 5) in the Telecommunications technician’s workshop.
- All cabling needs to be fastened in cable racks and where possible. Any cabling that is run outside M08 needs to be weatherproof and Fire Retardant. (Ruggedized)
- At this stage, we only wish to replace the two PA systems, not the loops and the speakers/horns. That is if the loops and speakers/horns are found to be comparable with the new system and in good working order.

3. Operational Continuity:

- As the FA platform is inhabited and functional, we cannot completely disconnect the current system. At least one of the two PA systems would have to be operational at all times during the removal and replacement of the other systems.
- Once one system has been installed and commissioned, only then can the second system be decommissioned, removed, and replaced.

4. Local Supplier and Support:

- It would be preferable to have a local (South African) company supply and install the equipment due to the extra expense and logistics related to the supply of spares and the cost of flying in any support personnel during the installation and if required at a later stage.
- We would also need to know, what spare parts would be locally available, and how quickly they could be supplied if necessary. And if our technicians can attend to their replacement, or if the supplier would have to do the repair to retain the warranties on the equipment.

5. Longevity and Support:

- What is the current life expectancy of the proposed system, and the likelihood of it being supported/upgraded into the future.
- Agreements for ongoing maintenance and support and upgrades need to be presented as part of the tender.

6. Site Assessment:

- Interested bidders will be given the opportunity firstly to liaise with the Offshore support team and then later may be given the opportunity to visit and assess the current installation to finalize their tender offering.

7. Documentation and Training:

- Once the two systems have been installed and commissioned, a full set of documentation needs to be supplied and a training session needs to be arranged for the technicians aboard the FA Platform. Maintenance routines as well as service schedules need to be put in place to ensure longevity of the equipment.

8. Warranty and Technical Staff Work:

- Clearly outline the expectations regarding warranties and guarantees on the equipment.
- Define the extent to which our technical staff may work on the equipment without voiding warranties.

9. Quotation

Your quotation should be fully inclusive of all costs associated with full replacement of the PA System, fully operational with the breakdown of parts, labour components, training, certification where necessary, installation and commissioning of the system.

