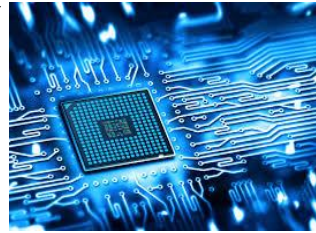


RENOVATION SURVEY

TDS-004 Issue 01 Zitel Technical Bulletin



Thank you for your interest in Zitel - we are a UK based manufacturer of PAGA and Intercom products. Our systems are mainly designed for use in the Hazardous Oil, Gas and Petrochemical industries.

Zitel are experts in the design, project engineering and delivery of fit for purpose mission critical PAGA systems, drilling facility intercom / talkback systems and point to point telephony systems. An important feature of our role is the ability to:-

i) supply a complete solution including the correct specification and placement of all field devices to ensure compliance with project and international standards where applicable

ii) to be able to set the delivered system to work ensuring that the package is installed safely and operates in accordance with its design and project specifications. *This latter requirement is realized by the provision of Zitel trained site service engineers who are able to work efficiently and proficiently to deliver a fully warranted system solution.*

SITE SURVEY

Zitel design and manufacture a range of equipment designed for use in critical life dependent applications, including petrochemical sites, power generation and general heavy industry. Zitel are able to deliver the complete package from project specific design documentation, specialist manufacturing (including compliance with ATEX directives), witness factory testing and delivery worldwide. As part of our capability Zitel offer a range of site related services including Acoustic studies (see TDS001), Installation survey / renovation studies, Pre commissioning / Commissioning and through life maintenance.

The purpose of this document is to provide an introduction to the Zitel site renovation service scope.

Site survey

There are many sites where equipment has reached the end of its useful working life and re fitting of the system (or key parts of the system) is the only cost effective solution. Zitel are able to mobilise to the site and produce comprehensive reports detailing the equipment required to meet the client specification aligning operational requirements with the existing infra structure. For example field devices such as loudspeakers and flashing beacons may still be serviceable and only the central equipment amplifier racks are beyond economical repair or only the field cable is worth retaining or a complete system wide change out is advised. Attention is drawn to Zitel' unique capability to interface to and support other vendor legacy PAGA packages. (See also Zitel XPAN DS205 data sheet).

For a renovation site visit the following are key reporting considerations:-

- 1) Client specification for the system operation – example number of broadcast zones, number of operator access positions, compliance with NORSOK / PFEER/ IMO SOLAS, coverage envelope and interfaces with other site systems – Entertainment system, PABX, F & G, ESD, DCS, NMS.

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- 2) Condition of existing hardware including field cables and associated junction boxes, IDF and MDFs
- 3) Power supply capacity (many systems we are asked to look at have had additional circuits added over the years to the point where both amplification and associated mains supply UPS are over loaded)
- 4) Access restrictions, narrow corridors, doorways, limited floor foot print area, height and weight restrictions, front / rear / side access.
- 5) Refit logistics, system down time criticality on a live site, planned changeover from old to new package, minimizing impact on an operational site.
- 6) Site acceptance criterion
- 7) Acoustic / Visual performance of the existing field device location and type versus current rules applicable.
- 8) Training and future support

Requirements

In order to execute a renovation study we require some basic information from the client:-

Scaled plot plan and elevation drawings generated in Auto CAD, area classification where applicable i.e. Safe area, zone 1 and zone 2 potentially explosive hazardous areas. The coverage envelope required ideally detailing escape routes, muster areas, critical locations where applicable. The location of the existing hardware – example central equipment racks, UPS, access positions, loudspeakers and flashing beacons where fitted. The required operation for the new system specifying supply voltage input, number and features attached to access positions, number of broadcast zones, priority of access, compliance with particular rules (Example DNV, ABS etc.). The work practices to be adopted on site during service, special site requirements to be adhered to.

Ziztel Service

Our engineers are qualified to work both on and offshore and hold the necessary medical and offshore survival pre requisites.

We are able to work in all parts of the world.

Deliverable

Following our site survey Ziztel will compile a detail report covering all aspects of the site renovation including a method statement narrative on the removal of the existing package and installation of the new system with minimal impact to site operations.



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Typical Method Statement contents:-

Renovation of PAGA system Water Treatment site

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