Press release: Dekra Industrial 'goes nuclear' with safety on steam generator replacement project at Koeberg

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Dekra is widely recognised as a global expert in non-destructive testing (NDT) and inspection. With a presence in more than 50 countries on five continents, and a proud history of 95 years in the industry internationally, Dekra is dedicated to ensuring long-term safety, quality and environmental protection across all industries.

Dekra Industrial RSA continues its parent company's commitment to the highest testing, inspection, safety and quality standards, and has developed an excellent reputation within South Africa and pan-Africa for its unwavering dedication in this regard.

Dekra Industrial RSA was recently awarded a tender to undertake NDT inspection and testing at South Africa's only nuclear plant, Koeberg nuclear power station in Cape Town. The company was sub-contracted by the two main suppliers on the project. Dekra Industrial's sound reputation within the industry - as well as its established presence in the Mother City - secured the NDT portion of the contract for the replacement of the steam generator (the Steam Generator Replacement or 'SGR' as it is known).

"Safety is the cornerstone upon which our outstanding global and local reputation is built. Thanks to this - as well as our skilled local team - we were successful in our tender to supply the SGR project at Koeberg," says Johan Gerber, Dekra Industrial RSA's Director.

Gerber says that with a national and regional footprint and also its close proximity to the plant, Dekra Industrial is also geographically and logistically well-positioned to conduct nuclear NDT and inspection on the SGR project.

"We have furthermore been assessed in accordance with the stringent RD-0034 nuclear safety compliance standard - as part of the NDE (non-destructive evaluation) scope of work for the SGR project - and we are currently in the process of addressing the requirements and defined gaps to become completely RD-0034 Level 2-compliant.

Although this is still subject to acceptance and verification from external parties, we are from Dekra Industrial management's standpoint confident that we will meet the requirements as contracted and managed between Dekra Industrial and our clients via the relevant project plans," Gerber adds.

“Once the above process has been completed, Dekra Industrial will be one of the few companies certified to this Level 2 supplier qualification in South Africa,” Gerber proudly states. Given the extremely stringent safety compliance standards in the nuclear sector, for Dekra Industrial to attain this level of expertise will be a noteworthy achievement, he observes.

Part of the project entails Dekra Industrial undertaking radiographic inspection on the reactor coolant system for the SGR project - specifically inspection of the connection weld between the steam generator and existing pipework; while the other part of the contract involved non-destructive examination services on the secondary welding on additional pipework, for the SGR project.

Dekra Industrial’s inspections include visual examination, penetrant testing, magnetic particle testing, ultrasonic testing and phased array ultrasonic testing; as well as industrial radiographic testing on the welds, “which brings a set of challenges with it, as this obviously has a radiation component,” Dekra Industrial Cape Town branch manager and project leader Rudolf Vermeulen explains.

Introducing another source of radiation (even in such a small amount) into a nuclear plant entails even stricter adherence to already stringent safety protocols, and involves substantial amounts of compliance-related administration, Vermeulen says, pointing out that both humans and equipment run the risk of potential radiation contamination in this scenario.

“While the Koeberg nuclear plant has many protocols in place to mitigate any form of contamination, there is always the potential human error element to consider. Dekra Industrial, however, always ensures that the correct level of oversight is undertaken, with the most rigorous procedures in place, to prevent any potential errors on non-compliances from occurring,” he adds.

“What also worked favourably for Dekra Industrial in securing this project was that – as a leading NDT and inspections provider – we are recognised for having good operational, safety compliance and behavioural measures in place; and a solid safety culture and track record within the nuclear environment,” he comments.

Gerber concurs, adding: “We also have the approval of the Atomic Energy Association and - at short notice if necessary – we have the support of Dekra’s Services division in Europe.”

For the SGR project, Dekra Industrial was also tasked with providing NDT technicians and assistants to carry out and / or assist in NDT inspections as requested. The company therefore turned to the local community to fill these roles - particularly from Atlantis - as the area is conveniently close to the power plant. Permanent in-house Level 3s NDTs were drafted in to train these candidates accordingly.

Vermeulen points out that working in the nuclear sector was a new experience for many of the general workers (brush-hands) sourced locally; and adds that there was significant mentoring involved in the training process, which not only served Dekra Industrial, but facilitated skills empowerment and upliftment of the local community at the same time.

Gerber notes that, in a nutshell, Dekra Industrial was awarded the SGR NDT contract according to a number of criteria, including the company's technical experience and expertise, the upliftment of local people, DEKRA Industrial's reputation as a leader in the NDT, inspections, testing and safety sector, and its focus on delivering impeccable quality.

DEKRA Industrial has also just been ISO 45001-certified, the first and only international standard for occupational health and safety (OH&S) management.

"Our safety profile at Koeberg is now so highly regarded, that we are frequently called in to give safety presentations on behalf of the plant which - with future nuclear 'new-build' plants in the pipeline within the next five to ten years - will stand us in excellent stead in terms of building our profile and securing top-of-mind awareness in this important industry sector for all nuclear NDT and inspection-related requirements going forward," Gerber concludes.

(980 words)

About Dekra Industrial and Dekra Institute of Learning

With 95 years in the industry through its parent company, Dekra Industrial RSA has established a formidable reputation as a leader in inspection services, non-destructive testing (NDT), material testing, laboratory services, Advanced NDT, and asset integrity services, and offers industry training through Dekra Institute of Learning. With a group presence in more than 50 countries on five continents, Dekra Industrial RSA is committed to providing professional and innovative safety solutions across a multitude of industries, including power generation, oil and gas, construction, petrochemical, manufacturing, fabrication, pulp and paper, rail, mining, steel industry and foundries, within South Africa and pan-Africa.

Dekra Industrial RSA is also ISO 45001-certified; and is in the process of becoming nuclear safety standard RD-0034 Level 2-compliant.

Dekra Institute of Learning is QCTO-approved and delivers an internet learning service across all industries, in both public and private sectors, with training pitched to all levels of competency, focusing on HSE, ISO and CPD-aligned courses. Classroom-based and distance learning are also available.

Dekra Industrial strives to exemplify its ethos of being the ‘heroes of safety’ and being the ‘global partner for a safe world’ in line with the company’s Vision 2025.

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