

## K-TIG RAMPS UP NUCLEAR STRATEGY SIGNING MOU WITH KEY UK NUCLEAR BODY

### Highlights

- K-TIG will partner with the Nuclear Advanced Manufacturing Research Centre (Nuclear AMRC) to develop a turnkey robotic welding solution.
- The robotic welding cell is expected to establish the technology baseline for fabricating nuclear waste containers used as part of the UK nuclear power station decommissioning.
- Some 15,000 nuclear waste containers are expected to be fabricated and procured by Sellafield as part of its GBP £1.5 Billion Tranche 2 procurement plan currently scheduled to commence in 2023/24.
- K-TIG is working with the regulators to not only sell the turnkey welding solution to other fabricators but also to directly participate in Tranche 2 of the Sellafield procurement.
- K-TIG will maintain all intellectual property and commercialisation rights to the welding cell developed.

K-TIG Limited (ASX: KTG) (“K-TIG” or the “Company”) is pleased to announce that it has entered into a Memorandum of Understanding with the UK’s Sheffield University based Nuclear Advanced Manufacturing Research Centre (Nuclear AMRC). Under the MOU K-TIG will develop a robotic welding cell to fabricate the nuclear waste containers to be utilised in the upcoming UK nuclear power plant decommissioning.

### NUCLEAR AMRC Technology Demonstration Facility

The Nuclear AMRC is developing a technology demonstration facility in conjunction with the UK nuclear decommissioning regulator to prove and demonstrate technologies that will be instrumental in the decommissioning of the UK’s 17 nuclear power sites into the future. The centre will have the fabrication capability for the 3m<sup>3</sup> stainless steel boxes used to house decommissioning waste. That waste primarily comes from the Magnox Swarf Storage Silo, Pile Fuel Cladding Silo and First Generation Magnox Storage Pond which are legacy nuclear waste storage facilities being decommissioned as part of the “Retrievals” stream at the Sellafield nuclear site<sup>1</sup>.

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<sup>1</sup> Market Engagement Briefing Paper - Tranche B 3m3 Box Contract Opportunity RP/3M3BOX/PROJ/00239 Sellafield Ltd.

These containers are mission critical to the successful and safe decommissioning of the UK's nuclear power sites and automated robotic fabrication. Utilising K-TIG's welding technology is seen as the key to meeting the exacting quality standards required.

The role of the Technology demonstration facility is to de-risk the fabrication process and provide resources to UK industry to allow it to modernise its fabrication capability to Industry 4.0 standards and participate in the ongoing nuclear decommissioning activities across the seventeen future sites.

Drawing upon the experience of K-TIG's proprietary welding technology in the fabrication of the original prototype and initial Tranche 1 design 3m<sup>3</sup> containers, K-TIG has been selected as the preferred welding technology for the demonstration facility for the Tranche 2 containers currently anticipated to be contracted in FY 2023/24. K-TIG will work with the Nuclear AMRC to design, develop, and supply the robotic welding cell that will fabricate these mission critical containers.

K-TIG's General Manager UK & Europe Ben Hall said the initiative will underpin the upskilling of the UK fabrication industry and advanced welding applications and create sustainable jobs for the future.

*"Our research and development partnership with the Nuclear AMRC embodies Industry 4.0 and the UK factory of the future. Working with the world leading nuclear research body Nuclear AMRC, the robotic welding cell will showcase the precision, quality and efficiency of advanced K-TIG welding solutions which incorporate cutting edge Keyhole technology, robotics and real time quality assessment. It will fast become the standard for Nuclear waste storage container welding," said Mr Hall.*

Nuclear AMRC's Strategic Relationship Manager Sean Murphy said entering into this MOU enhances the strong relationship between the Nuclear AMRC and K-TIG.

*"Nuclear AMRC and K-TIG will work together to further develop highly advanced methods to manufacture a range of products including containers for the safe and secure storage of radioactive waste from the nuclear sector. A successful conclusion to the collaboration would be to provide UK manufacturers with a turnkey solution for the fabrication of the products. This will help to ensure a strong supply chain, maintaining safe, repeatable quality and delivery", said Mr Murphy.*

## Scope of the Memorandum of Understanding

The non-binding MOU provides an agreement on the scope of activities to be undertaken by K-TIG and the commercial arrangements, including intellectual property rights, that will be captured in a formal contract anticipated to be executed late next month, with commencement of the project anticipated to occur in the month thereafter.

The scope of the welding cell to be provided includes; the integrated welding automation, container manipulator, robotic welding arm and K-TIG welding systems, as well as the automated pre and post weld inspection systems deployed for real-time quality checking. K-TIG will work with its industry partners to integrate commercially available welding manipulators and robots as well

as ultrasonic, visual and acoustic sensor systems into the K-TIG controller to provide a turnkey welding cell for the fabrication of Tranche 2 containers.

K-TIG will fund the development of the welding cell and make it available to the Nuclear AMRC for the demonstration facility. K-TIG will maintain all commercialisation rights to the robotic welding cell and make it available to the global nuclear waste containment fabrication industry.

### **K-TIG Nuclear Waste Container Strategy**

K-TIG has been successfully supplying its torch technology to the nuclear industry for a number of years with fabricators using K-TIG to supply waste containers in the UK and USA. Whilst these sales are expected to continue, K-TIG is seeking to develop and market integrated turn-key welding cells for this and other niche applications, adding increased high value products and greater revenue opportunities.

K-TIG will also become a direct player in the fabrication of nuclear waste containers in its own right, either through joint venture initiatives or suitable value accretive acquisitions. As a fabricator, K-TIG will simultaneously significantly increase its profitability and have a vehicle to further enhance its research welding technologies to add functionality to its product line and to develop turnkey solutions.

*"Our intention is to participate in the fabrication of the second tranche 3m<sup>3</sup> waste containers, not only as a technology and welding cell supplier to the fabricators producing the container boxes, but also as one of the fabricators constructing the boxes in our own right. As a fabricator, as well as the OEM for the fabrication technology, we believe that we have a compelling offer for Sellafield Limited that drives technological advancement and long-term cost reductions over the multi-decade lifecycle of their box procurements"* said K-TIG Managing Director Adrian Smith.

*"At the same time, we are demonstrating our sovereign expertise in nuclear waste storage. We are an Australian company that has developed technology right here in South Australia that is part of the solution to a problem so many countries face,"* he said.

*"The signing of this MOU is an important milestone in K-TIG's strategy to expand its involvement in the decommissioning of nuclear facilities worldwide. We believe that by creating and selling turnkey fabrication solutions targeted at this industry, as well as participating as a fabricator in the supply of waste containers this will lead to significant and sustained revenue growth,"* said K-TIG Chairman Stuart Carmichael.

This announcement was authorised for issue by the Board of K-TIG Limited.

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## About K-TIG Limited

K-TIG is a transformative, industry disrupting welding technology that seeks to change the economics of fabrication. K-TIG's high speed precision technology welds up to 100 times faster than traditional TIG welding, achieving full penetration in a single pass in materials up to 16mm in thickness and typically operates at twice the speed of plasma welding. K-TIG works across a wide range of applications and is particularly well suited to corrosion resistant materials such as stainless steel, nickel alloys, titanium alloys and most exotic materials. It easily handles longitudinal and circumferential welds on pipes, spooling, vessels, tanks and other materials in a single pass. Originally developed by the CSIRO, K-TIG owns all rights, title and interest in and to the proprietary and patented technology and has been awarded Australian Industrial Product of the Year and the DTC Defence Industry Award.

## Forward Looking Statements

Statements contained in this release, particularly those regarding possible or assumed future performance, revenue, costs, dividends, production levels or rates, prices or potential growth of K-TIG Limited, are, or may be, forward looking statements. Such statements relate to future events and expectations and, as such, involve known and unknown risks and uncertainties. Actual results and developments may differ materially from those expressed or implied by these forward-looking statements depending on a variety of factors.