

People Powering Net-Zero

The role of Process Safety Manager at Agratas, a global battery business, is incredibly rewarding.

We're a recently established enterprise and a subsidiary of the Tata Group which owns Jaguar Land Rover (JLR) and Tata Motors, our two anchor customers. We'll be pioneering the design, development, and manufacturing of batteries for electric vehicles (EVs). Battery cell production is due to commence in 2026 at facilities in the UK and India. Our multibillion-pound UK gigafactory will be one of the largest ever investments in the UK automotive sector to date, creating thousands of jobs directly and in the wider supply chain.

Agratas started life within JLR and since January 2024 has become an independent company under the Tata Group umbrella. To date, we're about 200 people strong and growing quickly! Our UK office is based at the National Automotive Innovation Centre (NAIC) near Coventry, but I work remotely from my home office in Cumbria.

I'm a Chartered Chemical Engineer and prior to joining the project in 2022, spent more than 8 years working in the high-hazard chemical industry. Through various Process Engineering, Project and Process Safety roles, I've learned from countless experts and honed my skills.

I love my job. It's very motivating to know that I'm playing an active part in the energy transition and helping to grow a new exciting UK industry. Every day brings new challenges so it's really important to be flexible and adaptable, whilst remaining dedicated to ensuring the highest standards in safety and environmental performance.

Working closely with the Process Engineering and Construction teams in both the UK and India, my team provides support and technical expertise to design and construction activities. This is the largest greenfield project I've been involved with during my career. A real benefit a new facility brings is the opportunity to incorporate Inherently Safer

Design (ISD) into the production process and site design, as well as how we operate our business. A lithium-ion battery and its manufacturing process encompasses many inherent

hazards, ranging from potential fire, explosion and toxic impacts. One doesn't need to look too far online to come across videos of battery-related fire incidents. As such, it's crucial we have a sound foundational understanding of these hazards and risks, in order to eliminate and minimize them wherever possible. For example, in Agratas we will produce two different battery chemistries (NMC, nickel-manganese-cobalt, and LFP, lithium-iron-phosphate) – therefore we need to understand and manage the hazards

specific to both chemistries. We have two sites in very different locations – therefore we need to understand how this may impact our process design and operation.

In the UK chemical industry, we are well-versed in assessing hazards and risks. Hazard Studies, guidance documents, Trade Association involvement and a strong "Lessons Learned" approach have each played a key part in continually improving process safety performance. I have been keen to develop the same mindset and good practices at Agratas, so have dedicated a great deal of time to upskilling the wider team in Process Safety Risk Management and building a strong safety culture.

The battery industry demands skills from a wide variety of backgrounds and industries, from paper to food to pharmaceutical, to high-volume manufacturing, to data science. As the UK industry grows, we have an unique opportunity to apply all the valuable learning from these established industries, to help us excel in the global EV market. I'm privileged to work with excellent engineers, scientists and specialists every day – I have already learned a lot from them and look forward to growing the team in the next exciting stages of the project.

To find out more about Agratas visit:

<https://agratas.net/> or contact me on LinkedIn:

<https://www.linkedin.com/in/katieoxley/>

