

PROJECT AURORA

MORANBAH AMMONIUM NITRATE

CLIENT : Incitec Pivot Limited / Dyno Nobel
PRINCIPAL CONTRACTOR : UGL Resources
PROJECT PARTNERS : Conneq Infrastructure & BGC Contracting
PROJECT END VALUE : \$900 Million
COMPLETION : February 2012
ENGINEER : UGL Resources and Conneq Infrastructure
SURVEYOR : BGC Contracting

ALLIANCE DELIVERS PROJECT AURORA FOR INCITEC PIVOT

Since 2007, an Alliance, made up of UGL Resources, Conneq and BGC Contracting, has been involved in developing a 330,000 tonne per annum ammonium nitrate facility for Incitec Pivot Limited (IPL), located in Moranbah, Queensland.

The project – known as Project Aurora – is valued at more than \$700 million and will deliver a facility to supply explosives products to the Australian mining industry. It originally involved the dismantling of an ammonia plant in Yazoo, Mississippi and its subsequent relocation and re-erection in Australia. The project also encompasses the construction of a new nitric acid plant, an ammonium nitrate solution plant, a 10,000 tonne storage facility and associated infrastructure utilities at the site in Moranbah.

The Alliance was formed to complete the project originally commissioned by Dyno Nobel (following its acquisition, Dyno Nobel is now a division of IPL). Working as an integrated team with a common set of project systems, the Alliance is responsible for the engineering, procurement, construction and construction

management of all production facilities on the Project Aurora site.

The unique structure of the Alliance works to effectively enable the strengths of each Alliance partner, ensuring an outcome that is best-for-project at all times.

By combining the partner companies' wealth of industry expertise and a diverse range of skills and trades, the Alliance works closely with IPL to achieve construction and procurement deadlines. This process ensures all responsibilities are carried out in a timely and cost efficient manner.

Based on process design supplied by Incitec Pivot, UGL and Conneq are delivering engineering for the various facilities within the production plant. They are also applying their significant management and trade expertise in structural, mechanical, piping, electrical and instrumentation works, whilst BGC manages all civil works – incorporating dams, concreting, earthworks, underground piping and roads.

In spite of the site's rather isolated location in Moranbah (around 190 km from Mackay), the Alliance is successfully managing the reliable provision of direct delivery construction, transportation schedules, logistics and inspection requirements. This is enabling the successful construction of the facility – a feat which involves 2,200 tonnes of structural steelwork, 80km of piping, 1,000 pieces of mechanical equipment and vessels and all electrical and instrumentation works.

Like any complex project of its size, Project Aurora has in-built challenges that the Alliance is managing. One of these potential challenges was the construction and erection of a 70-metre-tall Prill Tower, which, when completed, is to be used as part of the solidification process of the ammonia nitrate solution to form the final product: Prill.

Despite the fact the Tower was particularly high and contained an unusual internal SS lining, the construction team was able to successfully complete the facility, without injury, placing the final roof on the structure in June 2011.

With the total number of employees on-site at any one time sitting around 800, the Alliance has instilled a strong safety culture. This is enforced by a range of disciplined safety systems which ensure work on Project Aurora is safely planned in advance and that any potential hazards are removed and managed.

UGL Resources, Conneq and BGC Contracting have demonstrated that an alliance contracting arrangement is well suited to complex construction projects and that contracting partners produce outstanding results for the client when all commit to best-for-project outcomes.

**Contact: UGL Resources
BGC Contracting
Conneq
Incitec Pivot Limited**





A NAME SYNONYMOUS WITH HV CABLE JOINTING

Ward Operations Pty Ltd is a specialist high voltage cable jointing company that has been servicing the central Queensland Mining and Heavy Industrial areas for more than 22 years.

With a modern, fully compliant fleet of vehicles and trucks, as well as qualified Paper Lead Jointers, certified with 66KV with both Raychem and ABB, and 132KV with Siemens, Ward Operations have worked on a range of major projects both in Queensland and overseas.

With such diverse and specialised industry expertise and know-how, as well as innovative jointing techniques and practices, Ward Operations were also involved on the prolific Project Aurora, located in Moranbah, Queensland.

This Project, valued at more than \$700 million, involved the dismantling of an ammonia plant in Yazzo, America, and its subsequent relocation and re-erection in Australia. The Project also encompassed the construction of a new nitric acid plant, an ammonium nitrate solution plant, a 10,000 tonne storage facility and associated infrastructure utilities.

Owner and Principal of Ward Operations, Jeff Ward, said their extensive involvement on Project Aurora began at an early stage of the plant's reconstruction.

"Our team initially commenced work onsite from the day the first runs of high voltage cables were laid from the gas fired power station to the area of the new main substation, which at the time, hadn't yet been constructed," Mr Ward said.

"Regardless of this, we needed to guarantee the safety of the area, therefore tested and ensured the integrity of these cable insulations, prior to any backfilling of the main cable trench.

"This phase of our involvement in July last year, also incorporated HV Cable installation to the newly constructed camp, which included the high voltage cable terminations at both the camp transformer and power station," he said.

Mr Ward also said Ward Operation's contract involved approximately 300 High Voltage Cable Terminations at various locations around the site, including three main distribution substations.

"Given the significant size and extensiveness of our responsibilities, it was essential we manned our contract at different stages, to ensure consistent client satisfaction and results," Mr Ward said.

"In order to do this, we appointed four of our fully qualified electrical jointers, an electrical fitter mechanic, a Cable Jointing apprentice and of course, our reliable trade's assistant.

"Furthermore, we continued to visit the Aurora site throughout the various stages of construction to install new, high-voltage pumps and motors. As a result, we were able to achieve the required and specific target of our contract," he said.

One of the biggest challenges the professional team from Ward Operations encountered was getting the parallel 300mm 3 core copper XLPE-SWAHDPE Cables to fit into the European- designed HV Board at the main Power station.

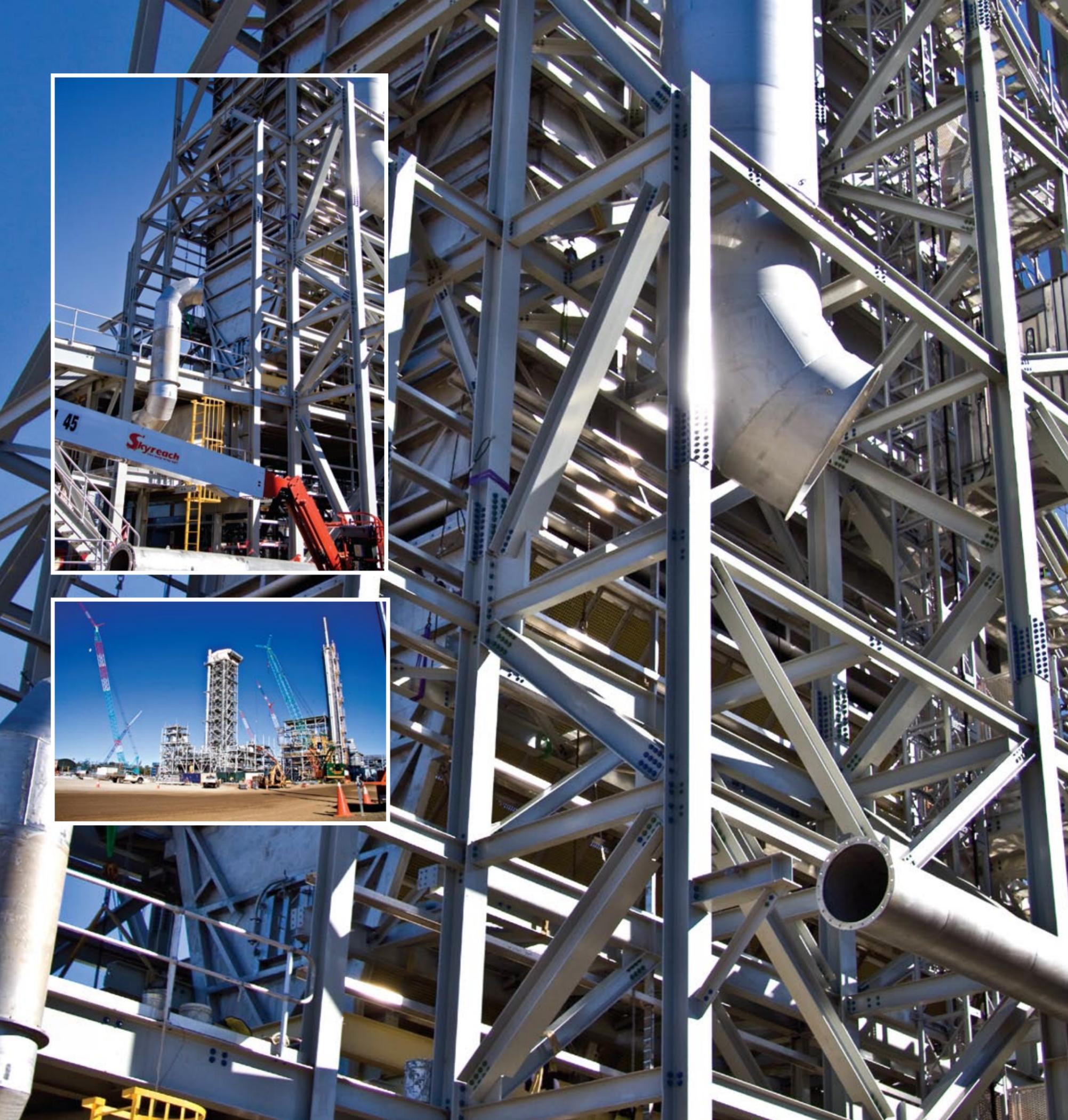
"Since there was limited space under the sub to enable drop boxes, let alone stand up, we installed our new range of Raychem's transition IXSU Jointing system to single core 300mm copper XLPEPVC cables," Mr Ward said.

"As the three, 300mm core cables already laid under the Power station substation, this allowed a single core, Raychem-type IXSU termination to be completed in the HV Board at the Power Station.

"Not only was Raychem the preferred Jointing system used on the Project Aurora site, however, it has also been a Jointing system that has stood behind our work on a number of major construction and mining sites, for over twenty years," he said.

It is without question, that in addition to the quality Jointing systems, installation techniques and products used by Ward Operations, their commitment to providing outstanding results to a range of projects, regardless of their size or scope, are the major factors that make them one of Australia's leading high voltage cable jointing companies.

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‘STEELING’ THE SHOW

Established in 1989, D&R Stainless has over 22 years experience in supplying stainless steel to major mining, petrochemical, and gas and water infrastructure projects throughout Australia, PNG, FIJI, Canada and South America.

Specialising in stainless steel pipe spool and plate fabrication across all grades of stainless steel, Chrome Molly and Titanium, D&R Stainless have been involved in a range of prolific projects.

Some of these include the manufacturing of large diameter tanks for Rio Tinto, Hay Point Coal Terminal- 7X Project in Hay Point, Bundamba’s advanced water treatment plant in Brisbane, as well as extensive pipe spooling for Dalby Power Station and Abbot Point Coal Terminal.

Given their range of expertise, professionalism and industry expertise, Karl Manders, Manager of D&R Stainless, said their innovative products and cutting-edge services were also required for Incitec’s significant \$965 million Project Aurora in Moranbah.

This extensive project incorporated the dismantling of an ammonia plant in America and its’ subsequent relocation. Following this, the plant was then transported to Moranbah, Queensland and its’ reconstruction, alongside the construction of a new nitric acid plant, an ammonium nitrate solution plant, a 10,000 tonne storage facility and associated infrastructure utilities, commenced.

“As part of our involvement on Project Aurora, we were required to fabricate, pre-assemble, pack, containerise and deliver to the site, in modular form, a 50 metre tall Prill Tower, made from more than 190 tonne of Grade 304 L stainless steel plate,” Mr Manders said.

“Using our own efficient transport fleet to ensure fast-tracked results, we also delivered an 11 metre, by 6.9 metre by 8 metre Prill Tower Hopper.

“In addition, we delivered more than 500 metres of large diameter Prill Tower Ducting,

ranging in size from 500mm diameter up to 2.6 metre diameters,” he said.

Given the fact D&R Stainless has Queensland’s largest dedicated stainless steel fabrication workshops to minimize cross-contamination of stainless steel and other metals. In addition, their workshops are equipped with modern welding and rotation equipment, enabling them to deliver high X-Ray quality stainless steel welding, at significantly reduced fabrication time rates.

However, whilst working on Project Aurora, Mr Manders said their biggest challenge had been adhering to the tight site erection schedule and timeframes.

“In order to meet the construction deadlines, D&R Stainless dedicated three of our main fabrication facilities to Project Aurora and ran one of our workshops 20 hours a day, six days a week,” Mr Manders said.

“In addition, our dedicated fleet of D&R Stainless trucks completed up to four, specific and oversize loads from Brisbane to Moranbah, on a weekly basis to ensure a smooth-running and efficient construction process.

“In fact, as a result of our commitment to the site’s reconstruction, as well as commendable efforts displayed by our expert team, Project Aurora has been running on budget and we have been able to deliver outstanding results to the client,” he said.

With an enviable reputation for quality products and customer satisfaction, as well as their leading fabrication technology and equipment, it is without a doubt D&R Stainless will remain Australia’s leading specialists in the design, manufacture and installation of stainless steel.

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TOTAL SUPPLY

Total Fasteners is a specialist fastener supplier to the mining, construction, engineering and manufacturing industries. Operating for over fifty years, Total Fasteners is highly experienced in the supply of special fasteners to industrial projects. With 13 branches across Australia, and a total of 140 staff, Total Fasteners can provide both standard and special fastener solutions to projects around the country.

In addition to the vast range of standard fasteners available off the shelf, Total Fasteners has the capability to source and supply all types of special fasteners to suit almost any specification. Total Fasteners has supplied fasteners to the BMA mine sites, sugar mills, the ammonium

nitrate project in Moronbah, the Mackay waste water recycling facility and many other projects around Australia.

The Paget branch of Total Fasteners, with its staff of 20, supplied and installed fasteners to the Mackay Wastewater Recycling Facility. Their role in the Mackay wastewater recycling project was to supply specialised stainless steel and galvanized fasteners for the construction of the underground pipelines that would carry effluent between Mackay city and the water recycling plant. They also supplied fasteners for the pipelines to carry recycled Class A water from the water recycling plant to the storage ponds. In total 22km of new pipeline was constructed

for the new waste water recycling facility at Mackay using special fasteners that were supplied by Total Fasteners.

Total Fasteners can supply specifications or custom drawings. In many cases, however, Total Fasteners can find a standard, off the shelf alternative that will often save the time and money associated with custom solutions. In addition to supplying fasteners, Total Fasteners also carry a large range of safety, abrasive, hand and power tools and general consumable and industrial products.

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JSIS-PROVIDING SOLUTIONS EVERY TIME

JSIS Engineering — with more than 22 Years in supporting mining & industry throughout Mackay and the Bowen Basin, were a secure choice to partner with in this massive project.

On this project, JSIS Engineering have welded both the underground services — Polyethylene pipe 450- 110 in diameter and some of the surface pipe work.

In excess of 3000 welds were hydrostatically pressure tested with zero weld failures. Full Q.A. and As-Built Drawings were supplied for all work completed.

With crews on-site since the early stages of the project, JSIS also supplied Trade Qualified Plumbers to fabricate and fit the PVC piping to the treatment plant.

JSIS Engineering is a diverse mechanically-based company that specialises in the following areas:

Polyethylene Pipe Supply & Installation - owning 32 Polywelding machines 800-110mm as well as 4 electro-fusion welders.

Polyurethane Casting - with the Mackay factory pouring over 30 tonnes of polymer into wear resistant parts for the mining industry annually.

Mechanical Installation Onsite - JSIS have been involved with many major projects for key players throughout the Bowen Basin since 1988 in both established and Greenfield sites.

Supply - JSIS specialise in the procurement of hard-to-find items or will design & manufacture to suit a specific need for example-purpose-built Belt Trackers, Cable Reelers, Wharf Fenders, Specialty Safety design & manufacture.

General Manager Mr Tony Britton said that the management on this site had made what could have been a very difficult job very easy.

JSIS look forward to their next challenge in this ever growing industry.

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THE BUILDING PROFESSIONALS

Specialising in commercial and residential construction, Hutchinson Builders, established in 1912, are the trusted name synonymous with the building industry.

With an outstanding reputation of delivering quality building results across a range of Australian projects, Hutchinson Builders' team of 900 employees were also recently involved on the significant Aurora development.

When complete, the \$935 million Aurora project will incorporate the relocation and construction of an existing ammonium nitrate plant from the United States to service the rapidly increasing demand for explosives, from the mining industry, throughout Queensland and New South Wales.

Responsible for the construction of the main warehouse, workshop, Administration and Control buildings, Ben Evans, Contracts Administrator at Hutchinson Builders, said throughout their involvement, the building team were required to meet a number of building specifications.

Given the fact the Control Building is the central communications hub of the Aurora plant, fitted with a testing lab and a full control room, it was essential the design of the building adhered to the client's strict criteria.

"One of the specific requirements was that the Control Building needed to be 'blast proof'," Mr Evans said. "In order to achieve this, we

and our associated engineers, designed the building with interlocking tilt-up pre-cast panels, with additional layers of reinforcing, for added strength.

"Formwork was then installed around the panels in order for the concrete roof to be poured. In addition, the reinforcing was designed to ensure the walls and roof 'locked' together and provided the required blast roof protection," he said.

Another challenge the Hutchinson team faced was the remote location of the construction site. "As Moranbah is a fairly remote location, the quality and quantity of subcontractors was at times, an issue," Mr Evans said.

"However, we were able to overcome this by employing our highly skilled team of builders and industry professionals to complete the majority of building works ourselves. "As a result, we delivered a quality outcome in a time and cost effective manner," he said.

The success of the Aurora Project is yet another testament to the deliverance of outstanding construction results that can be expected every time from Hutchinson Builders.

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NUMBER 1 FOR REFRACTORY SERVICES

With more than 130 years of collective industry experience, Total Refractory Management specialise in the supply, installation and design of refractory linings for the commercial, industrial, government and private sectors within Australia.

With an extensive range of capabilities and a commitment to providing outstanding results, regardless of the size of the project, Total Refractory Management has worked with a range of prolific clients on a number of projects. Some of these include BP Refinery, CSR Sugar Mills and Incitec Pivot Gibson Island, which incorporated the repair of the reformer and associated plant buildings.

Given their wealth of experience, Total Refractory Management were also involved on the \$376 million Project Aurora, which involves the reconstruction of a relocated American ammonia plant, as well as the subsequent engineering and construction of an ammonia nitrate production facility in Moranbah, Queensland.

Darren Smith, Operations Manager from Total Refractory Management, said throughout their involvement on Project Aurora, his professional team were responsible for all of the refractory installation and repairs to the existing linings, which also involved guniting castable, brickwork and ceramic fibre linings. "Commencing our initial involvement in 2008, we have been able to provide our complete refractory service to this significant project," Mr Smith said. "This has incorporated the

material procurement, installation, commissioning and maintenance across this large-scale redevelopment, that required our innovative heat, chemical and abrasion resistant linings," he said.

Given the significance of Project Aurora, Total Refractory Management ensured all of their installation processes were performed to meet the specific requirements of the client, ensuring a quality end result.

In addition, given the team's industry expertise and professionalism, they were able to complete their responsibilities in a time-effective manner, minimising any potential disruption to the construction process.

Able to provide complete refractory solutions to a range of industries, as well as a dedication to establishing long-term relationships with clients, Total Refractory Management will continue to be recognised as the number one contractor of refractory services within the Australian and Oceanic regions.

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THE SOLUTION TO ALL YOUR BULK HANDLING NEEDS

Specialising in the supply and delivery of bulk water and materials, JW & DM Bell are able to service a range of significant projects for a number of industries throughout Australia.

Committed to providing cutting-edge project results, JW & DM Bell have completed a range of prolific projects for the mining and gas industry, as well as the bulk material handling (sand and gravel) for the Missing Link Rail Project and were also recently involved on the \$935 million Project Aurora in Moranbah, Queensland.

Since 2010, the Project Aurora Alliance, made up of UGL Resources, Conneq Infrastructure Services and BGC Contracting, were involved in the dismantling of an ammonia plant in the USA and its' subsequent relocation. The project also incorporated the reconstruction of the ammonia plant in Queensland, alongside the development of a new nitric acid plant, an ammonium nitrate solution plant, a 10,000 tonne storage facility and associated infrastructure utilities.

During their involvement on Project Aurora, James Bell, Managing Director of JW & DM Bell, said their highly-skilled and professional team carried out a range of specific project tasks.

"Whilst working onsite, we supplied all of the bulk water, a modern fleet of service and tip trucks and organised the necessary labour

hire," Mr Bell said. "The provision of these essential services ensured the reconstruction phases of Project Aurora were carried out in a time and cost-effective manner, with minimal disruption to the various stages of the development," he said.

In addition, the expert team from JW & DM Bell removed the bulk of waste onsite in a swift manner, using their new, leading fleet of tip and service trucks.

"As a result, we ensured the delivery of optimal satisfaction and project results for the client and guaranteed a safe and efficiently operating worksite," Mr Bell said.

Given their outstanding reputation within the building and construction industry, as well as a multi-skilled workforce and modern fleet of vehicles, it is without a doubt, JW & DM Bell will remain one of the leaders within the bulk handling materials industry.

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MORE THAN JUST BATHROOMS

With over 150 years experience within the plumbing industry and more than 200 branches throughout Australia, Tradelink Plumbing can provide a leading range of plumbing, gas fitting and building solutions to a variety of projects.

As a result of their vast product range, bathroom fit-out specialisation and team of highly-skilled professionals, Tradelink Plumbing are able to satisfy an extensive range of building, renovating and maintenance needs, regardless of the size or the demands of the specific project.

Given their wealth of industry experience, Tradelink were also involved on the \$935 million Project Aurora, which involves the reconstruction of a relocated American ammonia plant, as well as the subsequent engineering and construction of an ammonia nitrate production facility in Moranbah, Queensland.

Dean Bowtell, Regional Manager for North Queensland of Tradelink Plumbing, said that throughout their involvement on Project Aurora they had supplied a range of plumbing supplies and builders during the significant reconstruction of the plant.

“With our wealth of industry expertise and know-how, we supplied and installed a large variety of plumbing supplies that were required for the reconstruction of the plant,” Mr Bowtell said.

“In addition, our commitment to delivering outstanding results and client satisfaction every time, ensured Project Aurora was equipped with the necessary leading plumbing products, in both a time and cost efficient manner,” he said.

Furthermore, the isolated location of Project Aurora posed no issues to the provision of the plumbing equipment to the site as Tradelink Plumbing’s team constantly liaised with other contractors working on the reconstruction to minimise any potential delays.

Dedicated to providing clients with their wealth of industry expertise and knowledge, as well as optimum plumbing and bathroom products, it is without a doubt Tradelink Plumbing will remain a leader within the bathroom and plumbing supplies industry.

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A BREATH OF FRESH AIR

With an established reputation for providing leading-edge products and practical design solutions, AirEng are the leading industrial fan specialists for the building and construction industry.

Committed to providing air-moving equipment that incorporates innovative technology and cost-effectiveness, AirEng are able to deliver outstanding engineered solutions for a range of air movement applications.

Given their extensive industry experience, AirEng were also recently involved on the significant \$935 million Project Aurora in Moranbah, Queensland.

Alan Dashper, General Manager of AirEng, said throughout their involvement on Project Aurora, his professional team carried out the design, Finite Element Analysis (FEA) work and the drafting of eight major process fans.

“The range of fans we provided included Table Blowers and Table Exhausters, a Prilling Tower Blower and a Scrubber Exhaust,” Mr Dashper said.

“We also supplied process dampers for the Prilling Tower and associated ducting,” he said.

Furthermore, AirEng’s production team handled all of the fabrication work in-house, using state-of-the-art CNC plasma profile cutting machinery, pulse MIG welding machines and assembly techniques. “After the initial fabrication and assembly, the fans were rigorously

tested before being transported, installed and tested onsite in Moranbah,” Mr Dashper said.

“In fact, AirEng also provided FEA services and specialist welding techniques to the impellers and shaft design to achieve the highest efficiency for each application,” he said.

Although AirEng successfully delivered the required fans, Mr Dashper said the size and scope of the Prilling and Scrubber fans meant they needed to be dismantled for transportation to the site.

“As both fans were lagged and clad in the factory, there were a number of geometric challenges,” Mr Dashper said.

“However, using 3D modelling, we provided ‘onscreen’ assembly and transport evaluation and ensured the fan supply contract was successfully executed,” he said.

Dedicated to providing locally produced products of the highest integrity and innovation, it is little surprise AirEng continues to be the fastest growing company in their field.

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A NAME YOU CAN TRUST

Specialising in the industrial and commercial building of a wide range of homes and sheds, Arabian Homes and Sheds is a Queensland-based company committed to delivering outstanding results in a cost and time effective manner.

Established in 1997, Arabian Homes and Sheds' professional and highly-skilled team have worked on a wide number of projects, regardless of their size, and since 2007, they have been involved on the significant Project Aurora in Moranbah, Queensland.

This project, valued at \$935 million, has incorporated the dismantling of an ammonia plant in America and its subsequent relocation.

The plant was then transported to Queensland and its' reconstruction, alongside the construction of a new nitric acid plant, an ammonium nitrate solution plant, a 10,000 tonne storage facility and associated infrastructure utilities, commenced.

Greg Irvine, Director of Arabian Homes and Sheds, said during their involvement, they supplied and installed a range of specifically designed industrial sheds to the site of Project Aurora.

"Since our involvement on this significant project, we have installed a number of sheds sized at 30metre x 40metre x 6metre high," Mr Irvine said.

"Given our team of experts and industry expertise, we were also able to deliver our building and installation services to the clients in both a time and cost effective manner."

"As a result, this ensured complete client satisfaction and minimised any disruption to the construction process," he said.

In addition to their innovative approach and quality products, Arabian Homes and Sheds liaised closely with key players on Project Aurora to ensure all the specific shed requirements needed for the Project, were fulfilled.

With a dedicated building team and a range of leading products and installation services, Arabian Homes and Sheds will continue to 'build' the building and construction industry within Australia.

ARABIAN HOMES AND SHEDS
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DELIVERING QUALITY RESULTS IS A 'BREEZE'

Led by director, Brendon McCarrison and Senior Structural Engineer, Graeme Spencer, the Breezewater® team has more than 20 years of industry experience under its belt. Breezewater Pty Ltd is one of Australia's leading process cooling companies and boasts a team with extensive expertise in design, planning, manufacture, construction and engineering to meet the process cooling needs of the building and construction industry.

In recent times, Breezewater® has worked on projects for a range of industry areas such as, but not limited to, the sugar industry, power generation, mines, chemical plants and refineries. Recently, Breezewater® was involved in a major Queensland project, located in Moranbah, known as "Project Aurora". This is a \$935 million project, which incorporates the relocation and construction of an existing ammonium nitrate plant from the United States to service the rapidly increasing demand for explosives from the mining industry.

Commencing involvement in Project Aurora in October 2010, Brendon McCarrison said that Breezewater® had been responsible for the design, supply and erection of a four-cell cooling tower.

"Whilst working on Project Aurora, our highly skilled team utilised proven cooling tower technology that ensured the delivery of longevity and reliability suited to the application. In addition, the materials selected to use on the four-cell cooling tower were specifically suited to the

extreme climate conditions of the area. This ensured both a durable and effective result for the project and client." Mr McCarrison explained.

Breezewater's wealth of industry expertise and know-how ensured that work on-site presented no significant challenges or obstacles.

"Given the fact integration and communication with the main contractor ran smoothly, as well as the high levels of commitment to the Project displayed by all of the on-site staff, Project Aurora was delivered in a timely and cost-effective manner." Mr McCarrison added.

With its high level of industry expertise, innovative products and a professional approach and team, Breezewater® will continue to deliver outstanding cooling tower solutions for a range of industries within Australia.



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Project Aurora, QLD

PACIFIC COMPONENTS - 'WE DO IT BETTER'

Sourcing leading products from around the globe, Pacific Components is a company that specialises in the provision of cutting-edge electrical wiring accessories to the building and construction industry.

With an extensive range of products, such as cable ties, copper lugs, wire marking and identification, cable glands, safety products and pre-insulated terminals, Pacific Components are able to meet the building product demands of any project, regardless of its size.

With a commitment to outsourcing and out-servicing their competition, Pacific Components has been involved on a range of significant projects, such as the Victorian Desal Plant and was recently involved on Queensland's \$935 million Project Aurora.

When complete, Project Aurora will incorporate the dismantling and relocation of the ammonia plant in the USA to Moranbah in Queensland, its subsequent reconstruction, as well as a 10,000 tonne storage facility and associated infrastructure utilities.

Throughout their involvement, Peter Siewert, General Manager of Pacific Components said they were responsible for the manufacture and design of custom labels and wire identification products that were specifically required throughout the duration of Project Aurora's completion.

"We produced a large range of labels and tags that were based on Project Aurora's requirements - in particular our range of stainless steel cable markers were highly sought after," Mr Siewert said.

"In fact, the materials and innovative techniques we use to manufacture our labels is a custom-made technology that has been developed in-house over the last five years.

"For this particular project we used IMARK, a technically advanced method of making labels of any size to identify cables and electrical components, as well as stainless steel and plastic, to achieve cost effective and cutting-edge results for the client," he said.

Given Pacific Component's industry expertise and leading product range, their philosophy that 'we do it better' is testament to the fact they will continue to be one of Australia's leading electrical wiring accessory companies.

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