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3 February 2017

## **CFOAM Limited – Operations and Activities Update**

**Triadelphia, WV, USA** CFOAM Limited (**CFO**) was admitted to the official list of the ASX on 24 October 2016. CFO, through its wholly owned US subsidiary, Carbon Innovations, LLC (**CI**), assumed operational control and oversight of the carbon foam CFOAM® production platform in July 2016 and full legal control on 22 October 2016.

### **Current business performance**

- Significant de-bottlenecking of the manufacturing process and systems has assisted in a material reduction of operating costs, increased production unit yield and output.
- All required operating platform capital works and maintenance programs have been completed – ahead of schedule.
- Cash receipts from CFOAM®20 and 30 sales from 22 October 2016 to 31 December 2016 totalled US\$510,000. Additionally, a material inventory build-up has been undertaken to ensure CFOAM® billet stock is on hand to meet forecast customer demand. Current inventory totals 3,100 units.
- Meetings were conducted with important tooling customers to place and hold billet inventory on consignment for immediate use in tooling and other applications.
- For the six-month period ending 31 December 2016, 4,310 billet production units were manufactured. Of this production total, 1,542 units were delivered to customers.
- PFOAM™ licence agreement commercial terms finalized with sign off by both parties expected on or before 6 February 2017. Following execution of the license agreement, production of PFOAM™ to satisfy current purchase order(s) commences immediately.
- CFO now retains three key business development personnel to increase global awareness of CFOAM® products, and meet the array of current customer opportunities.

### **Summary of Critical Platform Upgrades and Maintenance - Completed**

- Selection, procurement and installation of a new 3-axis, automated milling machine.
- Purchase of coal pulveriser system completed to control the feedstock supply chain. This system, historically owned and operated by a 3<sup>rd</sup> party supplier, will now be brought “in-house” to fully control CFO’s feedstock supply chain. This unit is currently being dismantled and relocated to a permitted site. Operation of this system is expected to commence late

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Q2/early Q3 2017. The unit has the capacity to process and supply *all* coal feedstock requirements, at many multiples of CFO's current plant CFOAM® capacity.

- Design, construction and installation of a new feedstock loading system – this has markedly reduced both loading cycle time and man-hours required to perform this task.
- Multiple electrical and PLC upgrades reducing production downtime.
- Major maintenance repairs to the reactor vessel were undertaken and completed in December. This has increased system availability and dramatically reduced down-time delays between production runs - from over 24 hours, to *less than 3-hours*.
- An additional set of billet racks and feedstock pans were designed, procured and delivered. These are now fully in use, and have further reduced cycle load time.
- Acquisition and installation of storage containers allowing for additional on-site storage of 4,000 billet units of finished CFOAM® product. Potential CFO customer on-site CFOAM® inventory storage can materially add to this total.

***Storage Racks with CFOAM® inventory***



***Coal pulveriser including 20 ton storage bins***



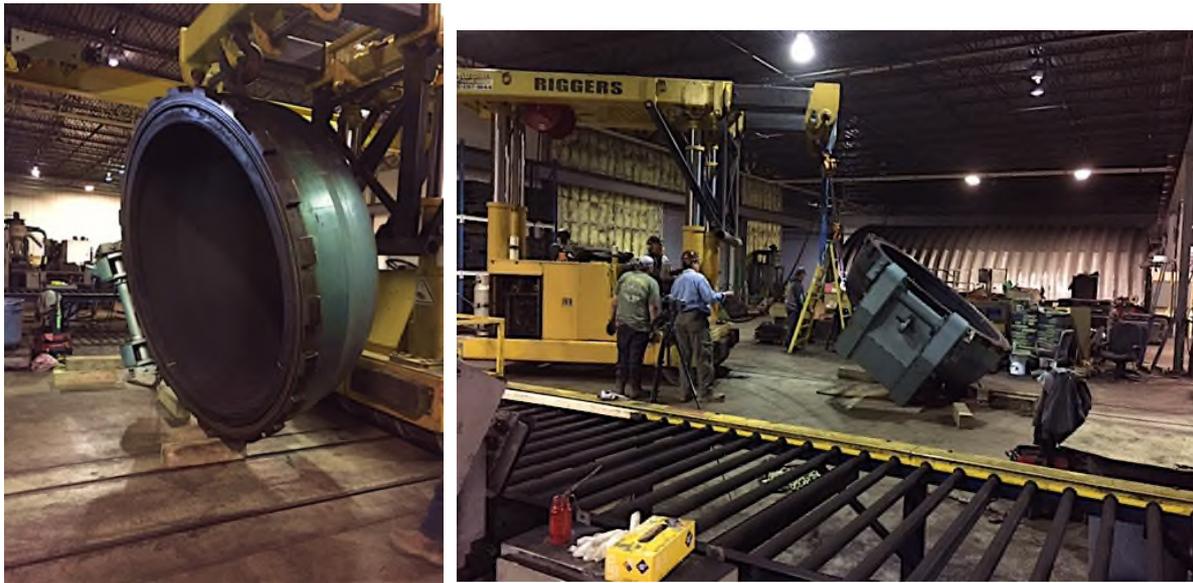
***Dust collector for the 3-axis milling machine***



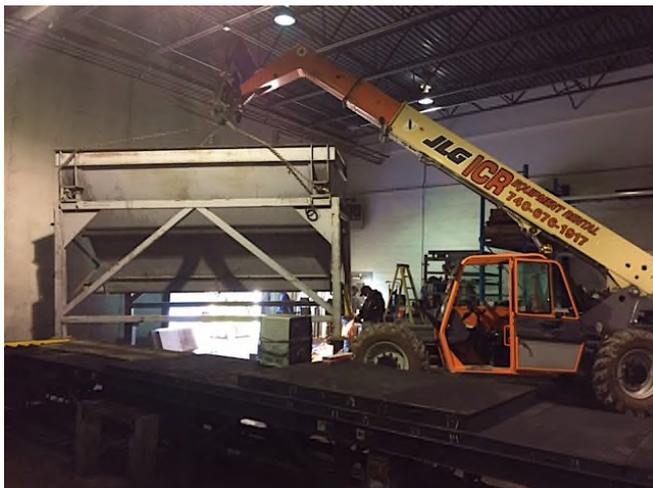
***Delivery of 3-axis automated milling machine***



### **Repair work to reactor vessel**



### **New Feedstock loading bin**



### **Measurable Gains in Production Variables**

Key highlights for the period from 22 October 2016 to 31 December 2016:

- Optimization of the entire production platform process has been achieved with new feedstock loading bins installation and the restructure of all manufacturing systems.
- Production run billet unit yield increased from 72% to 95% per run cycle realized.
- System-wide upgrades increased unit billet thickness 20% increasing billet unit volume by 40%.
- Significant overall improvement in end-product quality and consistency.
- Production run times as a direct result of system improvements have been materially reduced – a total of 45 production runs have now been completed to date – a dramatic escalation relative to prior production run metrics.
- Direct CFOAM® cost of goods sold (COGS) have been significantly reduced – per billet unit.

## Tooling and Composite Customer Activity

- CFOAM® has visited major composite tooling companies resulting in an RFQ from each company.
- Discussions held re placing CFOAM® billet inventory on-site, and on consignment, for immediate use for end-user tool applications. Billets will be purchased via open POs.
- These customers have expressed clear interest to increase use, and expand parameters of use, for CFOAM®.
- Additional customer site visits will be undertaken in the near-term by CFO business development personnel, and CFOAM® visibility and awareness will be further enhanced via involvement with, and attendance at, specialised composite tooling trade shows.

## Other Key Customer Activity

- **Fire resistance programs** – light rail and subway car applications. Initial, validation test orders of CFOAM® light density panels in process.
- **US Navy/Huntington Ingalls** – awaiting confirmation of the installation date for initial sea trials.
- **Energy absorbing applications** - for rail transport of hazardous materials. Discussions re program parameters and design are ongoing.
- **PFOAM™ license agreement** - commercial terms are fully agreed, and agreement to be fully executed and announced in the immediate near-term. This license agreement provides access to patents and intellectual property related to the production of a graphitized/densified carbon foam product. This product, derived from a *mesophase pitch* feedstock, has thermal conductivity properties greater than aluminium and copper. PFOAM™ feedstock already procured, and inaugural PFOAM™ billet production, to satisfy pending customer orders, successfully completed.
- **Additional multi-use program/customer developments**
  - Initial discussions re use of CFOAM® in home and related applications.
  - Ongoing discussion re use of CFOAM® in multi-purpose electric vehicle and energy storage applications.
  - Inquiries from major sporting goods manufacturer re CFOAM® end-use applications.

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## **About CFOAM Limited**

*On 22 October 2016, CFO, through its wholly owned US subsidiary, Carbon Innovations, LLC (CI), acquired all production plant equipment, intellectual property (including patents and trademarks), leases, inventory, contracts and infrastructure related to the production of carbon foam CFOAM®.*

*CFOAM® is an inorganic carbon material that is manufactured from coal, pitch or lignin feedstock. CFOAM® manufactured in this process has a rigid foam structure, similar in appearance to pumice stone, but with entirely different properties. CFOAM® is currently used across a wide variety of markets including composite tooling for the aerospace sector, energy absorbing applications and defence applications. Additional markets such as the automotive applications for energy absorption and fire resistance are also expected become significant to the Company over time.*

*CFOAM® was developed to meet the growing demand for ultra-high end performance engineering materials in the, industrial, aerospace, military and commercial product markets.*

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