

# AISOIB

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OFFICE OF QATAR STEEL  
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A subsidiary of Industries Qatar (IQ)



## 35<sup>th</sup> Anniversary of Independence



### HIGHLIGHT

- QASCO Invests in Rebar Processing Facility
- Installation of Ten (10) Hand Valves in Main Burner line
- Steelmelt Shop (SMS) Expansion Project
- New Bar Mill (NBM) Project

**TRUST** QASCO STEEL TO BE THE **TOUGH** BACKBONE OF ALL YOUR **STRUCTURES**

# EDITOR'S MESSAGE



Dear Alsob Reader,

The 78th Issue of Alsob Magazine coincides with the Independence Day, which embodies freedom, glory and national pride under the leadership of H.H. Sheikh Hamad Bin Khalifa Al Thani, the Emir of the State of Qatar and H.H. Sheikh Tamim Bin Hamad Al Thani, the Heir Apparent.

Qatar Steel Company (QASCO) plays an important role in and contributes vigorously to the present economic boom, prosperity and development in Qatar. This remarkable contribution is represented in the increase of production in order to meet the demand of the local and overseas markets through the new expansions of QASCO which has favorable and enhancing influences on the economy of Qatar which is prospering under the wise leadership of H.H. the Emir.



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# QASCO INVESTS IN REBAR PROCESSING FACILITY



Qatar Steel Company, a wholly owned subsidiary of Industries Qatar (IQ), a Qatari shareholding company, is setting up a state-of-the-art fully integrated and fully automated Rebar fabrication shop at its existing plant at Mesaieed Industrial City. This is in line with QASCO's Vision of **focus on the needs of other target markets with select, value-added products and exceptional customer attention.**

Sheikh Nasser Hamad Al Thani, Director and General Manager (D&GM) of Qasco, has recently concluded and signed contracts for the supply of machinery with leading manufacturers from Europe. The facility is expected to start commercial production by last quarter of 2006. This project, with an initial investment of 20 Million Qatari Riyals, is being internally handled by QASCO's Engineering Department. Other infrastructural requirements are currently being taken care of and should be ready by the time machines are delivered.

As the demand for construction steel is high in Qatar due to the country's economic boom, it is imperative that projects are completed on schedule, in a cost-effective manner. To this effect, QASCO intends to provide customers with customized reinforcement solutions. This will not only help the construction industry to complete its projects in time but also find solution for its requirements from one single source.

With the establishment of this facility, the production capability of fabricated rebar will be augmenting the huge demand in Qatar and will be targeting major projects and governmental projects which need to be completed in a timely cost-effective manner. Special attention has been given while selecting the machinery for the facility, like the performance of the machine in the Gulf region, the reliability, maintainability and ease-of-operation of the machines.

All machines will be equipped with bar scanning facility so that all production data can be input from a centralized computer. Bar codes are created by the production software and automatically loaded into the machine controller. This eliminates manual entry of information by the operator thus eliminating incorrect data entry and errors and minimizes the time it takes for data entry because tags are scanned, greatly reducing operator key strokes and minimizing wastage of material. Bar code scanner interfaces directly with the controller; this will be integrated with production software for job tracking purposes. The Facility will be operated with sophisticated scheduling software, which enables to download production data direct to the shop floor ensuring fast, accurate high quality manufacturing, and processing.

QASCO will aim and dedicate in reinventing reinforcing and finding new and better ways to design and build all types of reinforced concrete structures. QASCO will have a specialized team dedicated to developments that provide customers with genuine opportunities to save time, money and effort in all aspects of reinforced concrete design and construction.

Added services like prefabrication, supplying, and fixing package will be catered for at a latter stage. We will provide additional service like



**Eng. Ahmed Sabt Khalifa**  
Manager, Engineering Department

prefabrication of reinforcement assemblies for elements such as footings, columns or beams in factory conditions maximizing quality and reducing congestion at site. QASCO believes in building and maintaining long-term relationships with its customers by closely working with them and catering to their requirements. The easiest way to take reinforcement off the critical path of a construction project and simplify project estimating, administration and management will be to take advantage of QASCO's added service in future for comprehensive total supply and fix service. 'One contact, one contractor, and one price' will be out motto in future.

QASCO's team of engineers will be constantly exposed to new and innovative construction solutions and can add substantial value by identifying opportunities for improvement and potential for savings during the design phase of any construction project. They can provide assistance in relation to solving reinforcing related construction issues, and application issues such as correct bending/rebending techniques.

QASCO engineers and detailers specialize in re-detailing design from construction drawings for reinforced concrete structures to maximize the benefits of off-site prefabrication. Prefabrication takes the steel fixing of major structural components such as piles, ground beams, pad footings, columns, beams, arches, and lattice girders off the critical path enabling builders to take advantage of the many benefits that modular construction offers. QASCO's superior bending and rebending characteristics and excellent weldability with no preheating required makes it the ideal choice for prefabrication. With the majority of prefabrication taking place safely under factory conditions, using special machines quality is assured and delays due to inclement weather are minimized. Elements are also clearly marked to ensure easy identification and they are delivered as required by the client, minimizing congestion on site.

**We at Qatar steel company do not see metals only as materials. We see entities our customers need in their businesses and our goal is to help them see the possibilities.**

- Assured supply of raw material from QASCO essential for project success.
- Strengthen QASCO in local and GCC markets
- By establishing such facility we are complementing the demand in the local market.
- Lead and maintain QASCO's strategic position in the local market.
- Increase service value of QASCO
- Focus on the needs of other target markets with select, value-added products.

**Our commitment to quality mean:**

- We will fully understand and conform to the requirement of our clients at all times.
- We will deliver defect-free products and services to all our customers on time.

# MANUFACTURING DEPARTMENT

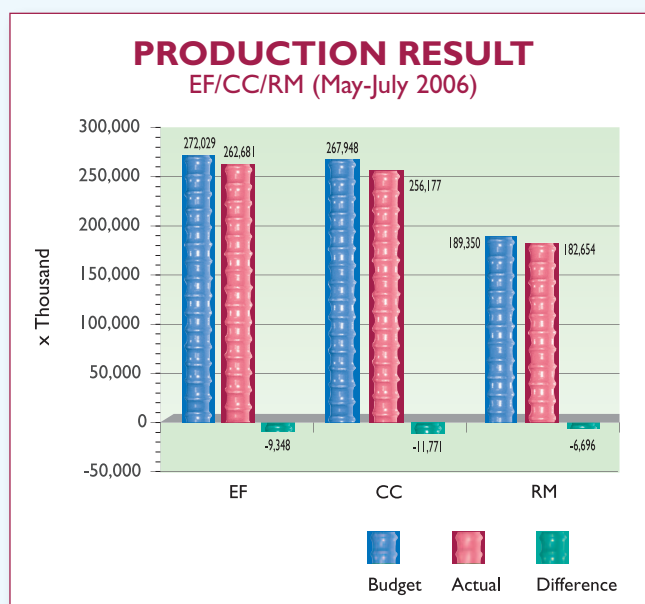


## DEPARTMENT ACTIVITIES

### PRODUCTION PERFORMANCE

The production results of all units of Manufacturing Department during May-July months of 2006 is less than the budget due to the unexpected outages. The results obtained against the budget in each shops are illustrated below.

	EF Section (Molten Steel)	CC Section (Billet)	RM Section (Bar)
Budget (Tons)	272,029	267,948	189,350
Actual (Tons)	262,681	256,177	182,654
Difference (Tons)	- 9,348	- 11,771	- 6,696



## PARTICULARS

### EF PLANT

Ladle Furnace commissioning is rescheduled from 1st July 2006 to 20th August 2006. The Operation and Maintenance Crew attended the Training by Danieli in Italy.

### CC PLANT

Ladle shroud Manipulator used for low carbon steel making is under installation in CC Machine No.3.

### RM SECTION

Straightening machine is under operation and the following sizes were produced up to July 2006:

- D8 = 3,813 Tons
- D10 = 1,441 Tons
- D12 = 314 Tons

The Operation and Maintenance crew attended the Training from 17th to 28th July 2006 conducted by VAI POMINI in Italy for the New Bar Mill (RM2) which is scheduled to commission in January 2007.

### LOGISTICS

In order to vacate the space for EF2R & CC2R Plants, the preparation areas for Tundish and Ladle were relocated and occupied successfully in new area.

The commissioning of Crane No. 52 for CC3 Billet Handling area is under progress.





# DIRECT REDUCTION DEPARTMENT



## DIRECT REDUCTION PLANT PERFORMANCE

DR plant performance in the 2nd Quarter of 2006 (April - June 2006). The highlights are:

- Total Production for the 2nd Quarter is 212,343 Tons.
- 4 days power shutdown was taken in June 2006 for establishing new connections of Power & Natural gas for New Projects

Taking the advantage of Power shutdown, the following main jobs were carried out for Shutdown:



## PREHEATER TUBE BUNDLE REPLACEMENT

Generally, Shutdown without power supply have not been used for work on Hot work permits. With Specialized safety management techniques, the opportunity has been provided for replacing one of the tube bundles of preheater during the June 2006 shutdown.

Now after both bundles replacement with upgraded material, related parameters have been re-adjusted to improve its efficiency. It has contributed positively to plant productivity. This should show productivity gain from Q-3 onwards.

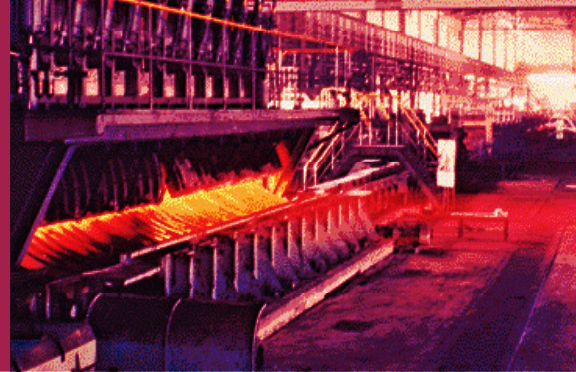
Please note that first time in DR, Pre-heater tube bundle is been replaced, with Reformer idling and without the service of power stack fan.

With specialized Safety scheme, we have avoided the very high rental cost of Diesel Generator which could have run the power stack fan, during power stoppage.

Moreover, this job was also required to be carried out in complete agreement with project schedule (by KSL), for Natural gas tie up work for new DR plant, in Natural gas station of Qasco.



# DIRECT REDUCTION DEPARTMENT



## COOLING ZONE BLEED LINE INSTALLATION

It is common practice for plants to operate with high Natural gas addition to Furnace. Disadvantage of high natural gas addition is that it lowers the center bed temperature of the furnace. The reduced center bed temperature limits the efficiency of the reduction reactions thereby limiting production rate.

This is because Upflow of Cooling Gas goes beyond the Wind Box to the transition zone. In order to minimize this upflow to reduction zone, a portion of the Cooling Gas from the Cooling Gas loop is bled and given to the Process gas bypass to Top gas scrubber line. This will help in reducing the Cooling Gas Upflow to the Transition Zone and thereby improving In-situ reforming.

In-house scheme was developed & was implemented by using old used pipe line with Manual control. These modification have shown an overall improvement in the process parameters. In next Phase we will provide Automation to this bleed line.

## INSTALLATION OF TEN (10) HAND VALVES IN MAIN BURNER LINE

DR Reformer was having a temperature imbalance. The Reformer West side temperature were almost 30-40 deg C higher than east side. Closing the hand valves of Auxiliary burners also didn't solve the problem of Reformer Overheating. This was one of the bottleneck for Production rate increase.

As a trail, we modified 10 Nos. of main burner by removing the Orifice installation & Installing Butterfly valve for controlling the fuel rate.

The other modification was, inverted the position for 30 Nos. of orifice towards east side in order to increase the fuel rate in east side thereby increasing the temperature of East side & controlling the temperature of west side. This Modification has shown a remarkable improvement in Reformer Temperatures.



# PROJECT DEPARTMENT



## PROGRESS REPORT OF EXPANSION PROJECTS AT THEIR PEAK

Construction activities for all 3 expansion projects are in full swing and it has expanded in various fronts and areas. Over the period since the commencement, considerable progress has been achieved and work progress is on an improving trend. Equipment erection is in progress for all the three (3) projects after a voluminous progress of civil work. As on June 2006 around 47,000 cubic meters of concrete have been poured comprising of all three projects. Brief details of these three projects are furnished below:

### DRI PROJECT

Major civil work in Core area is completed and the same in Material handling area and Sea water area are nearing completion. Important equipment viz. Furnace cell, Briquetting machine and other equipment have already been delivered and erected at site. Erection work in Reformer and Heat recover areas are on the verge of completion. Erection of balance equipment is in progress to match the no-load test schedule which is planned to be started during last quarter of 2006.

Supporting activities viz. Refractory, Utilities piping, electricals including cabling have also been taken up.

Milestones as planned at different phases of the projects are being achieved almost as per schedule.

Keeping in mind the present trend of site activities, it is well expected that proposed plant will be commissioned before contractual schedule and all-out efforts are being made from all sides to achieve the same.

### NEW BAR MILL (NBM) PROJECT

Engineering and Manufacturing of equipment and materials for the entire project are on the verge of completion. Major Shipment and subsequent delivery of material at site in progress with full swing. Already major parts of Building structures and equipment in major areas are available at site. Major thrust have been given towards expediting shipment of remaining items viz. piping, cables etc.





# PROJECT DEPARTMENT



Construction activities are in progress with topmost priority. Already about 80% of Civil works are completed and fronts are being released progressively for equipment erection. Main Steel Building frame Erection completed and subsequent sheeting is in progress. Equipment erection is presently in progress in cooling bed and Furnace areas. Electrical activities pertaining to installation of cable trays are also in progress.

Considering prevalent marketing condition and to improve the quality and cost down of proposed products under new bar mill, it has been decided to go ahead with the THERMAX® REBAR QUENCHING SYSTEM which will be integrated with the new 700,000 tpy bar mill plant in future.

According to the agreement, the new plant will come on-line with total capacity by end of 2006.

All-out efforts are being made from all sides to achieve the target date of commissioning.

## STEELMELT SHOP (SMS) EXPANSION PROJECT

Engineering for the entire project and Manufacturing of major equipment is completed. Shipment and subsequent delivery of material at site is nearing completion.

Construction activities are in progress both inside the shop and also for the outside shop facilities. Works for SMS building

expansion (axis 18-19) are likely to be completed by July 2006 in all respect. Civil works for Fume treatment plant (FTP), LF3 and associated structures have been completed and work expanded to EF3 and other areas to suit erection schedule. Equipment erection is in progress for LF3, FTP, DRI de-dusting systems etc.

According to the agreement, the new plant will come on-line with total capacity during end of December 2006 / January 2007. As an intermediate process of commissioning, Ladle furnace (LF3) is expected to be ready by July – August 2006.

Keeping in mind the present trend of site activities, it is expected that proposed plant will be commissioned as per contractual schedule and all-out efforts are being made from all sides to achieve the same.



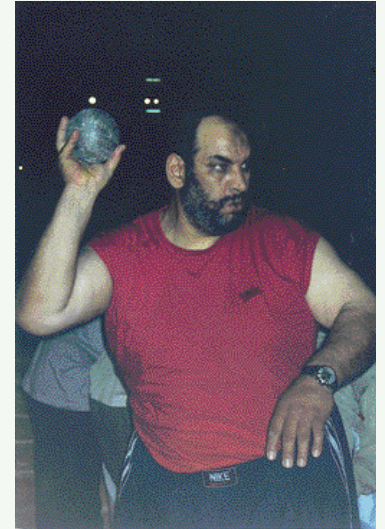


## 28TH ANNUAL SPORTS AND GAMES

Like previous years this year also under the Chairmanship of Administrative Divisional Manager and Sports Managing Committee we concluded our 28th Annual Sports and Game with a flying note. As usual we started with Marathon event on 06th April 2006 and concluded the Final day on 08th June 2006.

All the events were planned and organized with equal opportunity to all groups. A special dinner was arranged on Final Day. Games and sports prizes were distributed in the form of gift items to Families and Employees. Special thanks to Chairman Mr. Kefah Mustafa Al-Mulla and Vice Chairman Ali Jaber Al-Nabit who were the driving force keeping the spirit of sports alive.

On the final day a new closing ceremony was organized with a balloon released in the air for farewell of 28th Sports and Welcoming 29th Annual Sports and Games. Finally, thanks to the Managing Committee of 28th Annual Sports and Games who had supported and really put in their efforts to reach to that colourful finale.



## البطولة السنوية الثامنة والعشرون للألعاب الرياضية

في إطار حرص الشركة على الجانب الرياضي تم تنظيم البطولة الرياضية السنوية الثامنة والعشرين هذا العام تحت اشراف مدير الشؤون الادارية واللجنة المشرفة على الألعاب وحققنا البطولة نتائج باهرة. وكالمعتاد بدأت البطولة بسباق الماراثون يوم ٦ أبريل ٢٠٠٦ وانتهت في ٨ يونيو ٢٠٠٦.

تم تخطيط البطولة بطريقة تضمن فرصاً مساوية لكل المجموعات. وفي اليوم الأخير للبطولة أقيمت مأدبة غداء خاصة. تم توزيع الجوائز الرياضية في شكل هدايا للأسر والعاملين. والشكر لرئيس هذه الدورة الرياضية السيد كنفاح مصطفى الملا ونائب الرئيس علي جابر النابت لأنهما شكلا القوة المحركة التي عززت الروح الرياضية والحماس لدى الرياضيين.

وفي اليوم الأخير للبطولة أقيم حفل أطلقت فيه البالونات في الهواء لتوديع البطولة ٢٨ واستقبال بطولة الألعاب الرياضية رقم ٢٩.

وأخيراً نشكر اللجنة المنظمة لبطولة الألعاب الرياضية ٢٨ ونشكر كافة الذين أسهموا في إنجاح هذا الحدث الرياضي الكبير.



QATAR STEEL

# Our steel proves its mettle... once again.

**CARES endorses Qatar Steel's Product Conformity and Quality Management System.**

Since inception in 1978, we have gained a reputation as a world-class steel manufacturer. Our quality has been recognized through coveted certifications from leading quality assurance bodies. The endorsement by the UK-based Certification Authority for Reinforcing Steels (CARES) gives us yet another reason to continue our mission of manufacturing quality iron and steel products.



CARES is accredited by the United Kingdom Accreditation Service (UKAS) to ISO Guide 65 (product certification) and ISO Guide 62 (quality management systems certification using ISO 9001)

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