Boosting Today’s Production and Securing Future Success of Rolling Mill Operation

Consulting Cooperation with SteelAsia for Productivity / Efficiency Increase and Implementation of a Training Centre for Young Steelmakers

Since 2009, SteelAsia Manufacturing Corp. (Manila / Philippines) and BSE have been cooperating for various technical and consulting projects. The long-term relationship was prolonged by signing of two further comprehensive consulting agreements in 2016 and 2017. Boosting today’s rolling mill production of around 2.0 million metric tons per year up to 4.5 million tons requires not only state-of-the-art technology. For reaching this ambitious target, it is also decisive to have a skilled and motivated workforce achieving highly efficient operation on a sustainable level. Therefore, beside a consulting study for productivity and efficiency increase, BSE was entrusted with the implementation of a customised training centre within the SteelAsia organisation.

Productivity and Efficiency Increase
Knowing BSE for a long time with its own steel plant Badische Stahlwerke (BSW) and its successful operational philosophy (“Badische Philosophy”) was the key factor why SteelAsia decided for a know-how contract with BSE related to rolling mill operation. The contract comprises the systematic implementation of the “Badische Philosophy” with a three year know-how transfer and step-wise approach:
- On-site investigation by BSE/BSW experts at SteelAsia
- Mutual elaboration of a concept with defined road map and improvement projects
- Management and operation / maintenance seminars at BSW
- Operation / maintenance training at SteelAsia
- Steering committee meetings

Implementation of Training Centre
Securing future success in steelmaking means the right selection, education and training of young steelmakers. Based on observations made at BAG (the special company within the Badische Group dedicated to training of apprentices for different professions) and recommendations of BSE, SteelAsia is developing an own training centre in the Philippines.
In April 2017, the cooperation started with a kick-off meeting at the premises of SteelAsia, followed by the elaboration of a detailed report focusing on the three main fields / professions:
- Operator (operator rolling mill: pulpit operator and adjuster)
- Industrial mechanic (maintenance rolling mill)
- Industrial electrician (maintenance rolling mill)
In July 2017, the report was discussed and the first train-the-trainer seminar conducted at the premises of BAG.
In 2018, BSE will further support SteelAsia with technical assistance at site.

Results / Benefits
SteelAsia and BSE are proud of having this long-term partnership, working hand in hand and being optimistic that the cooperation will pay off. The on-site investigation, seminars at BSE/BSW and first on-site support have already effected a significant improvement of the rolling mill operation.
The implementation of the training centre together with BSE will be the next important step. Considering the excellent cooperation and success of the project so far, the course is set also for a successful start of the training centre scheduled for January 2019.

Update: Performance figures after two years of cooperation:

<table>
<thead>
<tr>
<th></th>
<th>Before</th>
<th>After</th>
</tr>
</thead>
<tbody>
<tr>
<td>Productivity [t/h]</td>
<td>58.4</td>
<td>62.0</td>
</tr>
<tr>
<td>Availability [%]</td>
<td>83.6</td>
<td>89.2</td>
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<tr>
<td>Delays [%]</td>
<td>10.6</td>
<td>5.9</td>
</tr>
<tr>
<td>Elec. energy [kWh/t]</td>
<td>87.0</td>
<td>78.1</td>
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<tr>
<td>Fuel [l/t]</td>
<td>26.1</td>
<td>21.2</td>
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</tbody>
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Since 1983, the Badische Stahl-Engineering GmbH (BSE) has been acting as a service provider for increasing the efficiency and productivity in the electric steel industry worldwide.

BSE is a sister company of the Badische Stahlwerke GmbH (BSW), one of the world’s most efficient Electric Arc Furnace steel plants. This unique partnership between BSW and BSE ensures that all products and services provided by BSE are not just based on mere theory, but on more than 4 decades of own proven operational experience.

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