



steelChallenge-19

Regional Championship



Audit Team Report

1. steelChallenge-19 Audit Team Report

The steelChallenge-19 audit team reviewed the log files and results from participants runs. This work includes re-creating runs to ensure they are consistent with the mathematical model programmed in the simulator.

During its work, they found situations of exploiting unexpected behaviours in the simulator and modification of the code. To ensure the high level of confidence and recognise the participants who play fair during the challenge, the Team applied the following rules as a reason for disqualification of the runs and participants.

- 4.3. Each competitor may only have a single login active at any given time and may only run the simulation in a single browser window at any given time. All runs that occur simultaneously will be disqualified.
- 8.0. Simulation results which exploit unexpected and/or unrealistic behaviours in the simulator code will be considered invalid. Any attempt to modify the simulator code will result in disqualification from steelChallenge-18.
- 8.2. The purpose of steelChallenge is to encourage the development of fundamental ferrous metallurgy knowledge. Use of computational techniques to optimise simulator performance is not permitted. For example, using computer code to run the simulators thousands of times to optimise the output is not allowed. A participant found to violate this rule will be disqualified.

1.1 Alteration of simulator's energy inputs

We detected unauthorized interactions with the simulation's mathematical model. The objective of these interaction was to increase the energy without the associated cost. These interactions were made via code, and not through the user interface, which is against rule 8.0.

1.2 Simultaneous runs

As a standard procedure we evaluate the start and end time of every run of both simulators to identify those which started while another run was not finished. The Audit Team applied the rule 4.3.

1.3 Modification of additions cost in SS

"The simulator records the accumulated cost of materials, additions, energy, consumables, etc. These values are accumulative and can't ever decrease. However, the audit Team observed some runs where this cost decreases. The Audit Team applies the rule 8.0.

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