

# Scheduling Tool for Furnace Outages at Kwinana Nickel Refinery by Hoa Bui



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## Virtual - Researchers Catch-up

To maintain the furnaces in a nickel refinery, regular shutdowns are required. Shutdowns provide opportunities to complete important maintenance activities that can only be performed when the furnace is not in operation. Due to production requirements, a furnace cannot be turned off for a long period of time and minimising the outage duration is always beneficial.

However, there is a major trade-off between minimising the outage duration and minimising the maintenance costs and resources. Therefore, an optimised shutdown requires planning the maintenance activities and organising resources, tools and parts in advance. This is a major challenge because the situation often changes on a daily basis, with maintenance priorities shifting and new maintenance activities emerging. For these reasons, having a dynamic tool to help the managers and schedulers easily generate shutdown schedules under different conditions to assist their decisions is highly desired.

In this presentation, I will talk about the dynamic scheduling tool developed by Theme 3 for assisting planners with solving these problems.