



L2 Environmental Incident: **STACK EMISSIONS LIMIT VALUE EXCEEDENCE**

Number	2021-08	Date	20.01.23
---------------	---------	-------------	----------

Summary:

During Commissioning of an EfW Plant, a stack emissions exceedance occurred whilst restarting after a trip on one of the process lines.

Whilst carrying out this “hot” start after the trip, the operator experienced difficulties with combustion air control as fault on the secondary air fan prevented it from restarting.

The resulting low O2 levels in the combustion chamber gave rise to high levels of Carbon Monoxide and Total Organic Carbon (TOC) being emitted through the stack over the period of 90 minutes.

Outcome:

The incident was reportable to the regulator as it exceeded permitted stack emissions.

Air Dispersion Modelling was carried to demonstrate that no exceedance of ground level concentrations potentially harmful to health had occurred.

Incident Classification: L2 Environmental Incident

Root Causes and Contributory Factors	Lesson Learned
<p>Root cause:</p> <ul style="list-style-type: none"> • Failure of operator to follow procedures <p>Contributory factors:</p> <ul style="list-style-type: none"> • Late reaction time to shutting down Line 3 increasing emissions resulting in delayed controlled shut down of plant. • Insufficient management intervention to control situation 	<ul style="list-style-type: none"> • Clear written instructions subsequently developed and communicated to operators on when the plant should be shut down if emissions exceedances are experienced. The instruction also clarified what to do if Plant Trips (as well as Start Up) • Shift Team Leaders must be clear on their responsibilities and when they need to intervene. • Start up and shut down table amended to reflect adjustments required for hot starts (not only cold starts).



Every Lesson Learned is an opportunity to avoid recurrences.
What have you done to avoid a similar incident on your project?

