

CASE STUDY

SILO BLOCKAGE REMOVAL USING BANG & CLEAN

CASE STUDY CONDUCTED AT A LARGE UK EFW PLANT

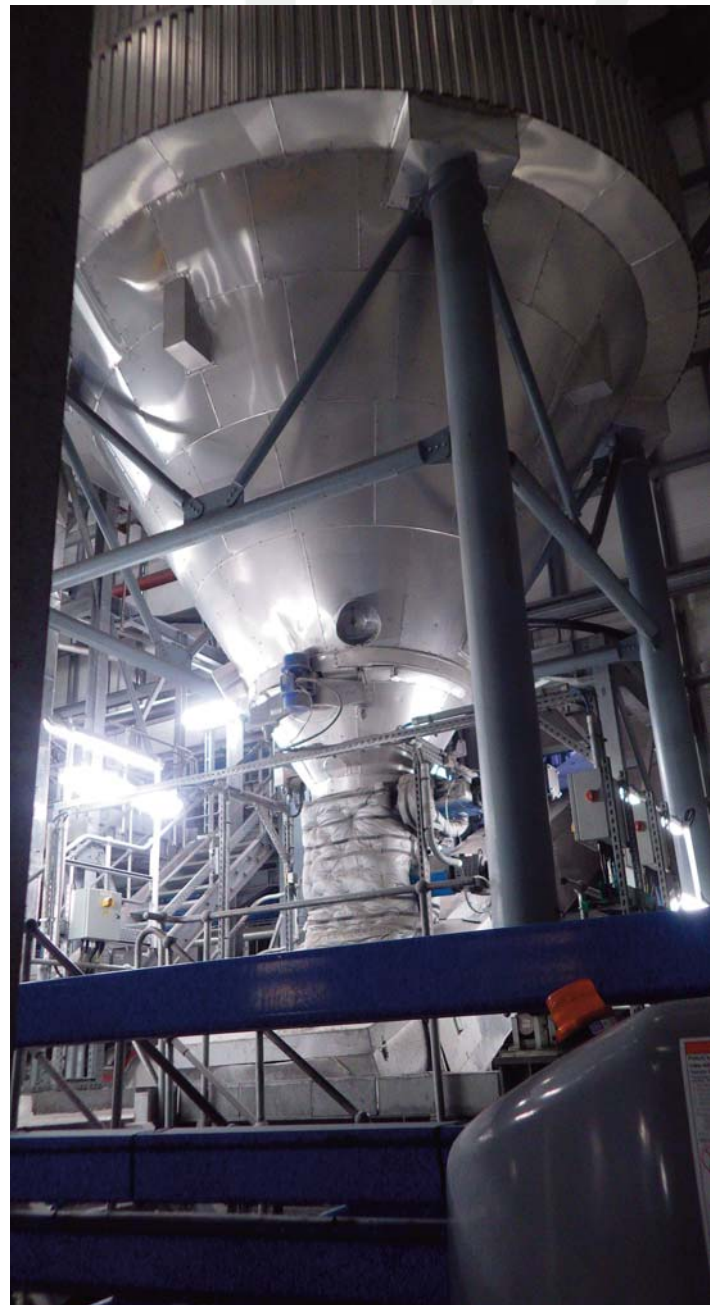
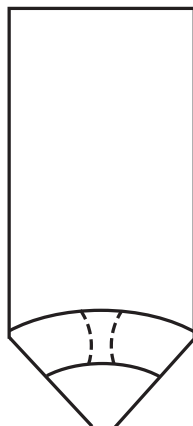
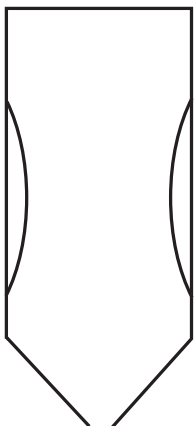
The Problem

Silo blockages can cause a plant to be shut down because there is no more space to store Air Pollution Control Residue or there is no more feed of reagents. The first sign of this problem is that the silo can no longer be emptied.

TYPES OF BUILD-UP

- Around the edge of the silo (below left)
- Bridging over the cone of the silo (below right)

Identifying the type and location of the build-up is critical to selecting the correct approach to solving the issue.

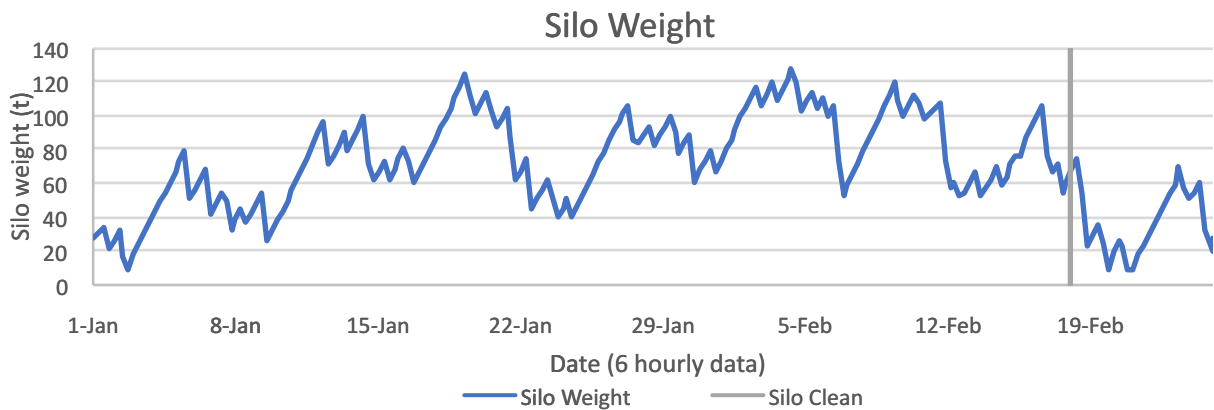


Inspecting the Silo

Due to the dusty environment of an on-line silo it can often be challenging to view inside. Using a torch to illuminate the inside of the silo is often not possible as the dust reflects the light. The best solution is to lower the torch into the silo, which will reduce the impact of the dust and improve visibility.

Plant details

Moisture and temperature changes within silos can cause material to build up around the walls or to cause bridges within silos. This reduces the time the plant can run before the silo is emptied and can ultimately cause the plant to be shutdown.



Graph of silo weights over the clean duration

The Plant Manager commented —

“KRR ProStream understood what the problem was, took ownership and the problem was resolved.”

The Solution

Bang & Clean can be used to agitate material and dislodge build-ups from the walls of the boiler. This is done by producing a number of small detonation below the build ups. The detonations cause a large displacement of gas which fluidises the material and allows it to flow freely, emptying the silo of ash buildup.

This case study was produced by KRR ProStream

