

Ash gets a blast

After 18 months of successful trials, an innovative method to clean boiler Hot Gas Off-Takes (HGOT) has been fully implemented in the power station.

HGOTs pre-dry coal as it moves through the pulverising mill. As a result of this process, ash solidifies and builds up in the HGOT which needs to be cleared.

Loy Yang Power's Stuart Hill (prior to retiring) and Diamond Power personnel worked together to develop a high pressure mobile water blower to blast off the built up ash while the mill is in service.

System Officer, Andy Procop said the water blower was a safer and more efficient way to perform this essential task with the boiler online.

"The ash builds up in the gas off-takes like cholesterol in the walls of an artery and needs to be cleaned away every two weeks or so depending on the coal ash content," said Andy.

"The water blower method is gentler and more controlled, sending a high pressure blast of water at the ash to break it up like a knife cutting through butter.

"The risk of injury due to a hot blow-back through an open inspection door is also minimised, making it safer for all involved and encouraging a 'no harm' workplace."

Diamond Power Site Manager, Barry Hentschel said he was pleased with the results of the water blower.

"The previous method of cleaning involved up to four people at a time manually chipping away at the ash with air lances for hours at a time," said Barry.

"It was arduous work which involved the risk of chipping and damaging the refractory material that internally lines the HGOT. The job now takes two people under an hour to complete.



Above, Diamond Power's Grant Vickery selects the water blower's direction on the touch screen while viewing live vision from the camera on the screen above.

Inset, ash is blasted away from the top down as the water blower does its work.



Diamond Power's Paul Rouget gets the water blower into position.

"Refractory damage was monitored during the trials and found to be less than the old method."

The new water blower was constructed with some previously decommissioned plant and uses new pipework.

A video camera attachment inserted through the HGOT inspection door provides live vision of what is happening inside. The camera is also connected to the targeting system which enables the user to select specific areas for the machine to focus on.