

CARDOX

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Sent: 25 April 2000 14:38
Subject: Demolition of Refractory by the Use of Cardox Charges

Dear All

As you may be aware at the recent AAL contract we used Cardox Charges to assist with the removal of refractory from the cone of main furnace of Calciner 1.

The cone consists of 4" of Inscast60 which due to oil impingement is traditionally very difficult to wreck, 13" of HA70 on ceramic anchors.

Cardox charges consist of a tube of liquid carbon dioxide behind a pre-set rupture disc. Detonation being achieved by warming the carbon dioxide to increase the pressure to rupture the disc, with the expanding gas breaking the refractory. This has a number of advantages over manual wrecking, principally an earlier start thus reducing the duration of the activity, reduced exposure to dust, noise and vibration for the operatives involved in the wrecking activity.

The charges were set from the outside of the vessel in redundant burner ports and embedded 50mm into the insulation. this had the advantage that demolition work could commence in what would otherwise be the cool down period.

Setting and releasing the charges took two people half a shift. The subsequent wreck of the cone was reduced from five shifts of eight operatives to three shifts.

We intend to use the same technique in May this year to remove the refractory from the cone of calciner 2 when it comes down for an unscheduled stop, though possibly with larger tubes.

The above is a very brief out line of the work undertaken, if you would like to know more about this technique or have an application on which it could be deployed please let me know.

Regards

Ian

26/04/00