

Title (en)
METHOD AND APPARATUS FOR HANDLING AND INDIRECTLY COOLING COKE

Title (de)
VERFAHREN UND VORRICHTUNG ZUR HANDHABUNG UND INDIREKTEN KÜHLUNG VON KOKS

Title (fr)
PROCEDE ET APPAREIL POUR MANIPULER ET REFROIDIR INDIRECTEMENT DU COKE

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Application
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Abstract (en)
[origin: WO9945083A1] An improved, environmentally sound method and cost effective handling and indirect cooling system is provided for coke as it is pushed out of the coke oven (103), indirectly cooled in a coke box (8) and discharged at a receiving station (105). The system uses a coke box (8) having approximately the same internal size and shape of the coke oven (103). The box (8) which is effectively sealed at the coke oven (103) during the push is covered by flowing water during the push and during the cooling cycle. A carrier (100) moves the box (8) to a cooling rack (104) and places the box (8) into the rack. The carrier (100) then moves to an adjacent cooled box (8), removes it from the cooling rack (104), transports the box (8) to an environmentally sound receiving station (105) and discharges the coke from the box (8) in substantially its original "cake" form into the receiving station. When space is not available near existing ovens for cooling racks (104), the hot coke can be pushed from the box into the receiving station and dumped or the hot coke may be pushed into a receiving chute (58) or directly onto a wharf (109) or pit and wet quenched with water. The method and apparatus of the invention are environmentally friendly, improve the quality of the coke, improve the yield of each push, and increase the size of the coke which is also an advantage. The coke cooling and handling method and apparatus also have the potential to reduce the time the coke needs to spend in the oven thereby increasing the productivity of the ovens. There is also a potential of treating the coke as it is cooled in the box (8) to further improve the quality of the coke.

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