

Title (en)

Cooling, dehumidifying, de-naphthenizing and detarring plant for coal distillation gases.

Title (de)

Einrichtung zur Kühlung und zur Eliminierung von Feuchtigkeit, Naphtha und Tar von Kohlendestillationsgasen.

Title (fr)

Installation pour refroidir, déshumidifier, dénaphter et dégoudronner les gaz de distillation de charbon.

Publication

**EP 0245814 A1 19871119 (EN)**

Application

**EP 87106786 A 19870511**

Priority

IT 1247686 A 19860514

Abstract (en)

The process and respective plant are designed to process the gas distilled out of coal and exiting from coke-ovens (1), through a first cooling step down to 80-85 DEG C, by means of water sprays, thus obtaining a partial condensation of tar and naphthalene which will be collected in a manifold-tank or header (3) together with the cooling water and steam condensate. Thereafter, the gas is separated from the condensed materials and is then further cooled in a water-spray tower (11) down to a temperature of 2-30 DEG C to cause the total condensation of tar and almost total condensation of naphthalene and steam, thus purifying the gas from said materials. Naphthalene is removed from the cooling water and condensate flowing out of said tower (11) by absorbing it completely into the tar which is also contained in said water, by processing said water in a suitable decantation and flotation tank (18) where tar will settle down and naphthalene will float. Tar and naphthalene will be removed through suitable ducts (20,21) from the bottom and surface, respectively, and then introduced into a single piping (22) where they will contact with each other and tar will absorb naphthalene by dissolving it. Water from various sections of the plant will collect in a decanter (9) where the tar that has absorbed naphthalene settles down and is removed, whilst the purified water is re-cycled. Suitable provisions are utilized to promote and to accelerate to a maximum extent the absorption of naphthalene into the tar, during all the steps of the process.

IPC 1-7

**C10K 1/06**

IPC 8 full level

**C10K 1/06** (2006.01)

CPC (source: EP)

**C10K 1/06** (2013.01)

Citation (search report)

- [Y] US 3451896 A 19690624 - SCHON ERICH F
- [Y] US 4239511 A 19801216 - AUSTERMUHLE FRIEDRICH-PAUL [DE]
- [A] FR 2358459 A1 19780210 - OTTO & CO GMBH DR C [DE]

Cited by

CN108069155A; CN101975402A; DE4439147A1; CN110559803A

Designated contracting state (EPC)

AT BE CH DE ES FR GB GR LI LU NL SE

DOCDB simple family (publication)

**EP 0245814 A1 19871119; EP 0245814 B1 19900131**; AT E49992 T1 19900215; BR 8702440 A 19880223; DE 3761568 D1 19900308; ES 2012468 B3 19900401; IT 1204163 B 19890301; IT 8612476 A0 19860514

DOCDB simple family (application)

**EP 87106786 A 19870511**; AT 87106786 T 19870511; BR 8702440 A 19870513; DE 3761568 T 19870511; ES 87106786 T 19870511; IT 1247686 A 19860514