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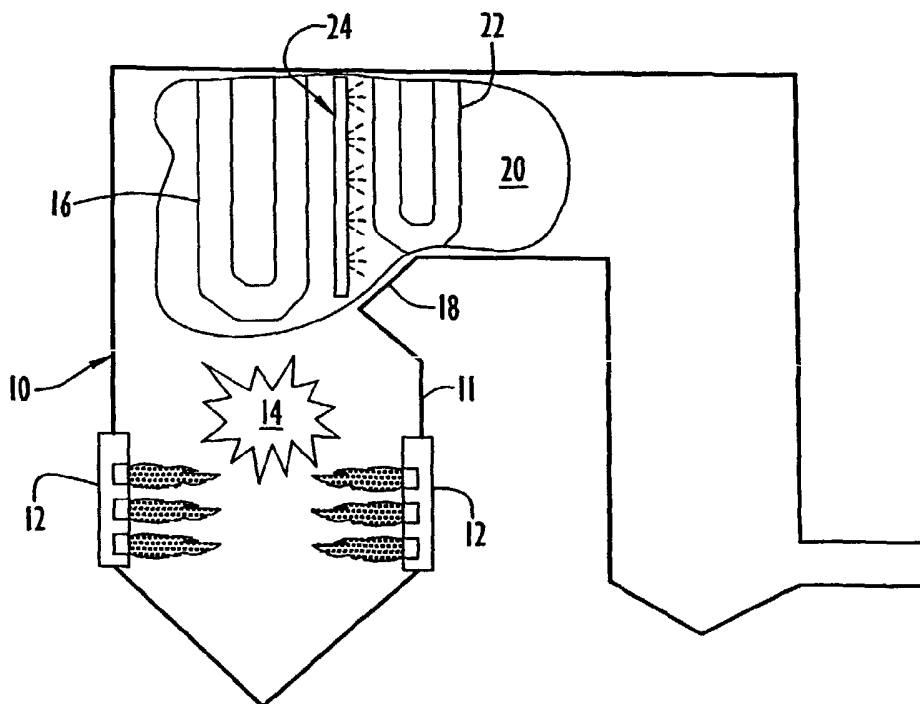
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[Continued on next page]

(54) Title: METHOD AND APPARATUS FOR ZONAL INJECTION OF CHEMICALS INTO A FURNACE CONVECTIVE PASS TO REDUCE POLLUTANTS FROM FLUE GASES



(57) Abstract: Zonal injection of varying compositions of chemicals, particularly an ammonia-based reagent and hydrocarbon, through injection lances (24-26) arranged in a grid formation to define planar zones in a furnace convective pass (10). The supply of chemicals is controlled so as to be individually determined for each discrete zone of the grid depending on conditions in that zone.



SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

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A. CLASSIFICATION OF SUBJECT MATTER

IPC(7) : B01D 47/00; B01J 8/00

US CL : 423/210, 423/235

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

U.S. : 423/210, 423/235

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched
NoneElectronic data base consulted during the international search (name of data base and, where practicable, search terms used)
Please See Continuation Sheet**C. DOCUMENTS CONSIDERED TO BE RELEVANT**

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	US 6548033 B2 (GANESHAN) 15 April 2003 (15.04.2003), see entire document.	1-18
A	US 5,326,536 (CARTER) 05 July 1994 (05.07.1994), see entire document.	1-18
A	US 5,020,457 A (MATHUR et al.) 04 June 1991 (04.06.1991), see entire document.	1-18



Further documents are listed in the continuation of Box C.



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* Special categories of cited documents:	
"A" document defining the general state of the art which is not considered to be of particular relevance	"I" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
"E" earlier application or patent published on or after the international filing date	"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
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"P" document published prior to the international filing date but later than the priority date claimed	

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INTERNATIONAL SEARCH REPORT

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Continuation of B. FIELDS SEARCHED Item 3:
WEST, EAST
search terms: flue gas, injection, ammonia, hydrocarbon