EUROPEAN PATENT OFFICE
U.S. PATENT AND TRADEMARK OFFICE

CPC NOTICE OF CHANGES 410

DATE: MAY 1, 2017

PROJECT RP0146

**The following classification changes will be effected by this Notice of Changes**:

| Action | Subclass | Group(s) |
|---|---|---|
| **Symbols deleted pending reclassification (frozen (F)):** | C21B | 2100/02 |
| | C21B | 2100/04 |
| | C21B | 2100/06 |
| | | |
| **Symbols newly created:** | C21B | 13/029 |
| | C21B | 2100/20 |
| | C21B | 2100/22 |
| | C21B | 2100/24 |
| | C21B | 2100/26 |
| | C21B | 2100/28 |
| | C21B | 2100/282 |
| | C21B | 2100/284 |
| | C21B | 2100/40 |
| | C21B | 2100/42 |
| | C21B | 2100/44 |
| | C21B | 2100/60 |
| | C21B | 2100/62 |
| | C21B | 2100/64 |
| | C21B | 2100/66 |
| | C21B | 2100/80 |
| | | |
| **Title wording changes:** | C21B | 2100/00 |
| | C21B | 2200/00 |
| | | |
| **Modified definitions:** | C21B | subclass |
| | C21B | 7/00 |
| | | |
| **Scheme Warning Notices to be added:** | C21B | 13/02 |
| | C21B | 13/029 |
| | C21B | 2100/00 |
| | C21B | 2100/20 |
| | C21B | 2100/40 |
| | C21B | 2100/60 |
| | C21B | 2100/80 |

**No other subclasses/groups are impacted by this Notice of Changes.**

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**This Notice of Changes includes the following** *[Check the ones included]:*

1.      CLASSIFICATION SCHEME CHANGES
     ☒  A.  New, Modified or Deleted Group(s)

     ☒  B.  New Warning Notice(s)

     ☐  C.  New, Modified or Deleted Note(s)

     ☐  D.  New, Modified or Deleted Guidance Heading(s)

2.      DEFINITIONS (Modified)
     ☐  A.  DEFINITIONS (Full definition template)

     ☒  B.  DEFINITIONS (Definitions Quick Fix)

3.      ☒      REVISION CONCORDANCE LIST (RCL)

4.      ☒      CHANGES TO THE CPC-TO-IPC CONCORDANCE LIST (CICL)

5.      ☐      CROSS-REFERENCE LIST (CRL)

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1.   CLASSIFICATION SCHEME CHANGES

  A.   New, Modified or Deleted Group(s)


**SUBCLASS C21B – MANUFACTURE OF IRON OR STEEL**

| Type* | Symbol | Indent Level Number of dots (e.g. 0, 1, 2) | Title (new or modified) "CPC only" text should normally be enclosed in {curly brackets}** | Transferred to# |
|---|---|---|---|---|
| C | C21B13/02 | 1 | in shaft furnaces | C21B13/02, C21B13/029 |
| U | C21B-13/026 | 3 | {heated electrically} | |
| N | C21B13/029 | 2 | {Introducing coolant gas in the shaft furnaces} | |
| M | C21B2100/00 | 0 | Handling of exhaust gases produced during the manufacture of iron or steel | |
| F | C21B2100/02 | 1 | Treatment of the exhaust gases | C21B2100/20, C21B2100/22, C21B2100/24, C21B2100/26, C21B2100/28, C21B2100/282, C21B2100/284, C21B2100/40, C21B2100/42, C21B2100/44, C21B2100/60, C21B2100/62, C21B2100/64, C21B2100/66, C21B2100/80 |
| F | C21B2100/04 | 1 | Recirculation of the exhaust gases | C21B2100/20, C21B2100/22, C21B2100/24, C21B2100/26, C21B2100/28, C21B2100/282, C21B2100/284, C21B2100/40, C21B2100/42, C21B2100/44, C21B2100/60, C21B2100/62, C21B2100/64, C21B2100/66, C21B2100/80 |

| Type* | Symbol | Indent Level Number of dots (e.g. 0, 1, 2) | Title (new or modified) "CPC only" text should normally be enclosed in {curly brackets}** | Transferred to# |
|---|---|---|---|---|
| F | C21B2100/06 | 1 | Energy from waste gases used in other processes | C21B2100/20, C21B2100/22, C21B2100/24, C21B2100/26, C21B2100/28, C21B2100/282, C21B2100/284, C21B2100/40, C21B2100/42, C21B2100/44, C21B2100/60, C21B2100/62, C21B2100/64, C21B2100/66, C21B2100/80 |
| N | C21B2100/20 | 1 | Increasing the gas reduction potential of recycled exhaust gases | |
| N | C21B2100/22 | 2 | by reforming | |
| N | C21B2100/24 | 2 | by shift reactions | |
| N | C21B2100/26 | 2 | by adding additional fuel in recirculation pipes | |
| N | C21B2100/28 | 2 | by separation | |
| N | C21B2100/282 | 3 | of carbon dioxide | |
| N | C21B2100/284 | 3 | of nitrogen | |
| N | C21B2100/40 | 1 | Gas purification of exhaust gases to be recirculated or used in other metallurgical processes | |
| N | C21B2100/42 | 2 | Sulphur removal | |
| N | C21B2100/44 | 2 | Removing particles, e.g. by scrubbing, dedusting | |
| N | C21B2100/60 | 1 | Process control or energy utilisation in the manufacture of iron or steel | |
| N | C21B2100/62 | 2 | Energy conversion other than by heat exchange, e.g. by use of exhaust gas in energy production | |
| N | C21B2100/64 | 2 | Controlling the physical properties of the gas, e.g. pressure or temperature | |
| N | C21B2100/66 | 2 | Heat exchange | |
| N | C21B2100/80 | 1 | Interaction of exhaust gases produced during the manufacture of iron or steel with other processes | |
| M | C21B2200/00 | | Recycling of non-gaseous waste material | |

*N = new entries where reclassification into entries is involved; C = entries with modified file scope where reclassification of documents from the entries is involved; Q = new entries which are firstly populated with documents via administrative transfers from deleted (D) entries.  Afterwards, the transferred documents into the Q entry will either stay or be moved to more appropriate entries, as determined by intellectual reclassification;  E= existing entries with enlarged file scope, which receive documents from

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C or D entries, e.g. when a limiting reference is removed from the entry title; M = entries with no change to the file scope (no reclassification); D = deleted entries; F = frozen entries will be deleted once reclassification of documents from the entries is completed; U = entries that are unchanged.

NOTES:
- **No {curly brackets} are used for titles in CPC only <u>subclasses</u>, e.g. C12Y, A23Y; 2000 series symbol titles of groups found at the end of schemes (orthogonal codes); or the Y section titles. The {curly brackets} <u>are</u> used for 2000 series symbol titles found interspersed throughout the main trunk schemes (breakdown codes).
- For U groups, the minimum requirement is to include the U group located immediately prior to the N group or N group array, in order to show the N group hierarchy and improve the readability and understanding of the scheme. Always include the symbol, indent level and title of the U group in the table above.
- All entry types should be included in the scheme changes table above for better understanding of the overall scheme change picture. Symbol, indent level, and title are required for all types except "D" which requires only a symbol.
- #"Transferred to" column <u>must</u> be completed for all C, D, F, and Q type entries. F groups will be deleted once reclassification is completed.
- When multiple symbols are included in the "Transferred to" column, avoid using ranges of symbols in order to be as precise as possible.
- For administrative transfer of documents, the following text should be used: "< administrative transfer to XX>" or "<administrative transfer to XX and YY simultaneously>" when administrative transfer of the same documents is to more than one place.
- Administrative transfer to main trunk groups is assumed to be "invention information", unless otherwise indicated, and to 2000 series groups is assumed to be "additional information".

B.  New, Modified or Deleted Warning notice(s)

**SUBCLASS C21B – MANUFACTURE OF IRON OR STEEL**

| Type | Location | Old Warning notice | New Warning notice |
|------|----------|--------------------|--------------------|
| N | C21B13/02 | | Group C21B13/02 is impacted by reclassification into group C21B13/029. Groups C21B13/02 and C21B13/029 should be considered in order to perform a complete search. |
| N | C21B13/029 | | Group C21B13/029 is incomplete pending reclassification of documents from group C21B13/02. Groups C21B13/02 and C21B13/029 should be considered in order to perform a complete search. |
| N | C21B2100/00 | | Groups C21B2100/02-C21B2100/06 are no longer used for the classification of documents as of May 1, 2017. The content of these groups is being reclassified into groups C21B2100/20-C21B2100/80. Groups C21B2100/02-C21B2100/06 and C21B2100/20-C21B2100/80 should be considered in order to perform a complete search. |
| N | C21B2100/20 | | Groups C21B2100/20-C21B2100/284 are incomplete pending reclassification of documents from groups C21B2100/02-C21B2100/06. Groups C21B2100/02-C21B2100/06 and C21B2100/20-C21B2100/284 should be considered in order to perform a complete search. |
| N | C21B2100/40 | | Groups C21B2100/40-C21B2100/44 are incomplete pending reclassification of documents from groups C21B2100/02-C21B2100/06. Groups C21B2100/02-C21B2100/06 and C21B2100/40-C21B2100/44 should be considered in order to perform a complete search. |

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| Type | Location | Old Warning notice | New Warning notice |
|------|----------|--------------------|--------------------|
| N | C21B2100/60 | | Groups C21B2100/60-C21B2100/66 are incomplete pending reclassification of documents from groups C21B2100/02-C21B2100/06. Groups C21B2100/02-C21B2100/06 and C21B2100/60-C21B2100/66 should be considered in order to perform a complete search. |
| N | C21B2100/80 | | Group C21B2100/80 is incomplete pending reclassification of documents from groups C21B2100/02-C21B2100/06. Groups C21B2100/02-C21B2100/06 and C21B2100/80 should be considered in order to perform a complete search. |

*N = new warning, M = modified warning, D = deleted warning

NOTE: The "Location" column only requires the symbol PRIOR to the location of the warning. No further directions such as "before" or "after" are required.

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2. B.  DEFINITIONS QUICK FIX

| Symbol | Location of change (e.g., section title) | Existing reference symbol or text | Action; New symbol; New text |
|---|---|---|---|
| C21B subclass | | | **INSERT** a new Special Rules section, as follows:<br><br>Special rules of classification<br><br>In the group C21B2100/22, reforming is based on a reaction with other hydrocarbon containing gases. In the group C21B2100/24, shift reactions involve steam, water vapor, or water.<br><br>C21B2100/40 concerns the specific purification and reuse of exhaust gases in metallurgical processes, while B01D2258/025 concerns only the purification process in general of waste gases from metallurgy plants. |
| C21B7/00 | | | **INSERT** a new Special Rules section, as follows:<br><br>Special rules of classification<br><br>Groups C21B7/002 and C21B7/005 concern evacuating and treating of exhaust gases from blast furnaces in general. Further classification is mandatory in groups C21B2100/00 - C21B2100/80. |

NOTES:
- The table above is used for corrections or modifications to existing definitions, e.g. delete an entire definition or part thereof; propose new wording or modify wording of a section, change the symbol the definition is associated with, change or delete a reference symbol, etc.
- Do not delete (F) symbol definitions.

3.      REVISION CONCORDANCE LIST (RCL)

| Type* | From CPC Symbol (existing) | To CPC Symbol(s) |
|-------|---------------------------|------------------|
| C | C21B13/02 | C21B13/02, C21B13/029 |
| F | C21B2100/02 | C21B2100/20, C21B2100/22, C21B2100/24, C21B2100/26, C21B2100/28, C21B2100/282, C21B2100/284, C21B2100/40, C21B2100/42, C21B2100/44, C21B2100/60, C21B2100/62, C21B2100/64, C21B2100/66, C21B2100/80 |
| F | C21B2100/04 | C21B2100/20, C21B2100/22, C21B2100/24, C21B2100/26, C21B2100/28, C21B2100/282, C21B2100/284, C21B2100/40, C21B2100/42, C21B2100/44, C21B2100/60, C21B2100/62, C21B2100/64, C21B2100/66, C21B2100/80 |
| F | C21B2100/06 | C21B2100/20, C21B2100/22, C21B2100/24, C21B2100/26, C21B2100/28, C21B2100/282, C21B2100/284, C21B2100/40, C21B2100/42, C21B2100/44, C21B2100/60, C21B2100/62, C21B2100/64, C21B2100/66, C21B2100/80 |

* C = entries with modified file scope where reclassification of documents from the entries is involved; Q = new entries which are firstly populated with documents via administrative transfers from deleted (D) entries.  Afterwards, the transferred documents into the Q entry will either stay or be moved to more appropriate entries, as determined by intellectual reclassification; D = deleted entries.

NOTES:
- Only C, D, F and Q type entries are included in the table above.
- When multiple symbols are included in the "To" column, avoid using ranges of symbols in order to be as precise as possible.
- For administrative transfer of documents, the following text should be used:  "< administrative transfer to XX>" or "<administrative transfer to XX and YY simultaneously>" when administrative transfer of the same documents is to more than one place.
- Administrative transfer to main trunk groups is assumed to be "invention information", unless otherwise indicated, and to 2000 series groups is assumed to be "additional information".

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4. CHANGES TO THE CPC-TO-IPC CONCORDANCE LIST (CICL)

| **CPC** | **IPC** | **Action*** |
|---|---|---|
| C21B13/029 | C21B13/02 | NEW |
| C21B2100/20 | CPCONLY | NEW |
| C21B2100/22 | CPCONLY | NEW |
| C21B2100/24 | CPCONLY | NEW |
| C21B2100/26 | CPCONLY | NEW |
| C21B2100/28 | CPCONLY | NEW |
| C21B2100/282 | CPCONLY | NEW |
| C21B2100/284 | CPCONLY | NEW |
| C21B2100/40 | CPCONLY | NEW |
| C21B2100/42 | CPCONLY | NEW |
| C21B2100/44 | CPCONLY | NEW |
| C21B2100/60 | CPCONLY | NEW |
| C21B2100/62 | CPCONLY | NEW |
| C21B2100/64 | CPCONLY | NEW |
| C21B2100/66 | CPCONLY | NEW |
| C21B2100/80 | CPCONLY | NEW |

*Action column:
- For an (N) or (Q) entry, provide an IPC symbol and complete the Action column with "NEW."
- For an existing CPC main trunk entry or indexing entry where the existing IPC symbol needs to be changed, provide an updated IPC symbol and complete the Action column with "UPDATED."
- For a (D) CPC entry or indexing entry complete the Action column with "DELETE." IPC symbol does not need to be included in the IPC column.
- For an (N) 2000 series CPC entry which is positioned within the main trunk scheme (breakdown code) provide an IPC symbol and complete the action column with "NEW".
- For an (N) 2000 series CPC entry positioned at the end of the CPC scheme (orthogonal code), with no IPC equivalent, complete the IPC column with "CPCONLY" and complete the action column with "NEW".

NOTES:
- F symbols are not included in the CICL table above.
- E and M symbols are not included in the CICL table above unless a change to the existing IPC is desired.