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Methodological issues
Registry systems under the Kyoto Protocol

Checks to be performed by the international transaction log

Note by the secretariat

Summary

This note has been prepared as a basis for discussion by Parties during the pre-sessional consultations on registry systems to be held on 13 and 14 May 2005 in Bonn, Germany. It provides information on the role of the international transaction log (ITL) and the checks it is to perform in its function of verifying the validity of transactions to implement the modalities for the accounting of assigned amounts, emissions trading, the clean development mechanism and joint implementation under the Kyoto Protocol. It has been prepared with the aim of explaining the technical design of the ITL and how it functions.

The information in this note is therefore presented in the context of the full scope of the processes established under the Kyoto Protocol to monitor and assess whether Parties included in Annex I to the Convention, that are also Parties to the Kyoto Protocol with commitments inscribed in Annex B to the Kyoto Protocol, are in compliance with their commitments under the Protocol. These processes include registry systems under Article 7, paragraph 4, the reporting of information under Article 7, the review of that information under Article 8 and procedures relating to the Compliance Committee under Article 18.

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I. Introduction

A. Mandate

1.   The Conference of the Parties (COP), by its decision 19/CP.7, requested the secretariat to establish and maintain an international transaction log (ITL)[1] to verify the validity of transactions undertaken by the registries established under decisions 17/CP.7 and 19/CP.7. In accordance with decision 19/CP.7, automated checks are to be performed by the ITL in carrying out this role.

2.   The COP, by its decision 16/CP.10, requested the Chair of the Subsidiary Body for Scientific and Technological Advice (SBSTA) to convene consultations, in accordance with decision 19/CP.7, prior to the twenty-second session of the SBSTA on the checks to be performed by the ITL and their conformity with relevant decisions of the COP. It requested that the consultations be with Parties included in Annex I to the Convention (Annex I Parties) and Parties not included in Annex I to the Convention (non-Annex I Parties) and that the results be reported to the twenty-second session of the SBSTA.

B. Scope of the note

3.   This note has been prepared as a basis for discussion by Parties during the pre-sessional consultations on registry systems to be held on 13 and 14 May 2005 in Bonn, Germany, immediately before the twenty-second session of the SBSTA. It provides information on the role of the ITL and the checks[2] it is to perform in its function of verifying the validity of transactions. It has been prepared with the aim of explaining the technical design of the ITL and how it functions.

4.   The information on the ITL in this note is therefore presented in the context of the full scope of the processes established under the Kyoto Protocol to monitor and assess whether Parties included in Annex I to the Convention, that also are Parties to the Kyoto Protocol with commitments inscribed in Annex B to the Kyoto Protocol, are in compliance with their commitments under the Protocol. These processes include registry systems in general under Article 7, paragraph 4,[3] the reporting of information under Article 7, the review of that information under Article 8 and procedures relating to the Compliance Committee under Article 18.

5.   The annexes to this note provide comprehensive lists of the checks to be performed by the ITL, as derived from relevant decisions of the COP and the specifications of the data exchange standards for registry systems defined on the basis of decision 24/CP.8.

II. Background

A. Registry systems

6.   The provisions contained in decisions 15/CP.7, 16/CP.7, 17/CP.7, 18/CP.7, 19/CP.7, 24/CP.8, 19/CP.9 and 16/CP.10, and their annexes, define the following registry systems:

(a)   **National registries** to be established and maintained by Parties included in Annex B to the Kyoto Protocol (Annex B Parties) to manage accounts for Annex B Parties, and entities authorized by them, to participate in the mechanisms under the Kyoto Protocol

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[1] The ITL is referred to in decision 19/CP.7 as the independent transaction log. The name international transaction log was used in decision 16/CP.10 and will be used exclusively in future.

[2] The checks presented in this note are those contained in version 1.0 (draft #7) of the technical specifications of the data exchange standards, dated 3 November 2004. Decisions adopted by the tenth session of the COP have not been considered in deriving these checks but will be taken into account in future versions of the standards.

[3] "Article" in this document refers to an article of the Kyoto Protocol, unless otherwise specified.

(b) **The clean development mechanism (CDM) registry** to be established and maintained by the secretariat, under the authority of the Executive Board of the CDM, to manage accounts for non-Annex I Parties, and entities authorized by them, which receive certified emission reductions from CDM project activities[4]

(c) **The international transaction log (ITL)** to be established and maintained by the secretariat to monitor and verify the validity of transactions proposed by national registries and the CDM registry. The ITL verifies that such transactions conform with the modalities, rules and limits established under the Kyoto Protocol and are undertaken in accordance with the specifications of the data exchange standards which have been defined on the basis of decision 24/CP.8

(d) **Supplementary transaction logs (STLs)** which may be established and maintained by Annex B Parties to monitor and verify the validity of transactions proposed by their national registries, where such transactions are subject to the rules of regional trading schemes which operate in a manner consistent with the modalities for the accounting of assigned amounts under Article 7, paragraph 4.

7. All transactions are initiated, tracked and recorded through a structure of accounts in national registries or the CDM registry. The registries use **electronic databases** to record the unit holdings and transactions for each account. In contrast, the role of the ITL is not to initiate transactions or hold units, but rather to monitor the validity of any transactions performed by registries which affect the overall quantity of units which Annex B Parties may use for compliance purposes under the Kyoto Protocol.

8. In this manner, the registry systems described above collectively facilitate the accounting of assigned amounts under Article 7, paragraph 4, emissions trading under Article 17, CDM projects under Article 12, and joint implementation (JI) projects under Article 6.

9. In order for registries to perform transactions, and for the ITL and STLs to verify them, all registry systems are to be connected to each other in a **network** by means of secure Internet communications. The ITL is to be integrated in the centre of these electronic communications, as illustrated in figure 1. Specifically, in accordance with decision 24/CP.8, the ITL is to maintain a **communications hub** through which all communications between registry systems are routed. Registries are linked to each other only via the communications hub provided by the ITL.

10. STLs function in a manner similar to that of the ITL, except that the rules against which they verify transactions are those specified under the relevant regional trading schemes. The checks applied by STLs do not duplicate those derived from rules under the Kyoto Protocol (referred to in figure 1 as "base checks") but are instead "supplementary" to them. The ITL will forward information on proposed transactions to an STL only if a registry involved in the transaction is a member of the relevant regional trading scheme and is therefore subject to its rules. If a transaction does not involve a member of such a regional scheme, the implementation of the transaction is unaffected by the presence of STLs in the network of registry systems. The only current example of an STL is the Community Independent Transaction Log (CITL) implemented under the European Union (EU) emissions trading scheme.

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[4] In accordance with the agreement by the Executive Board at its twelfth meeting, temporary accounts may be established in the CDM registry for Annex B Parties and their entities in order to receive and hold CERs, tCERs and lCERs until national registries become operational.

Figure 1. Network of linked registry systems
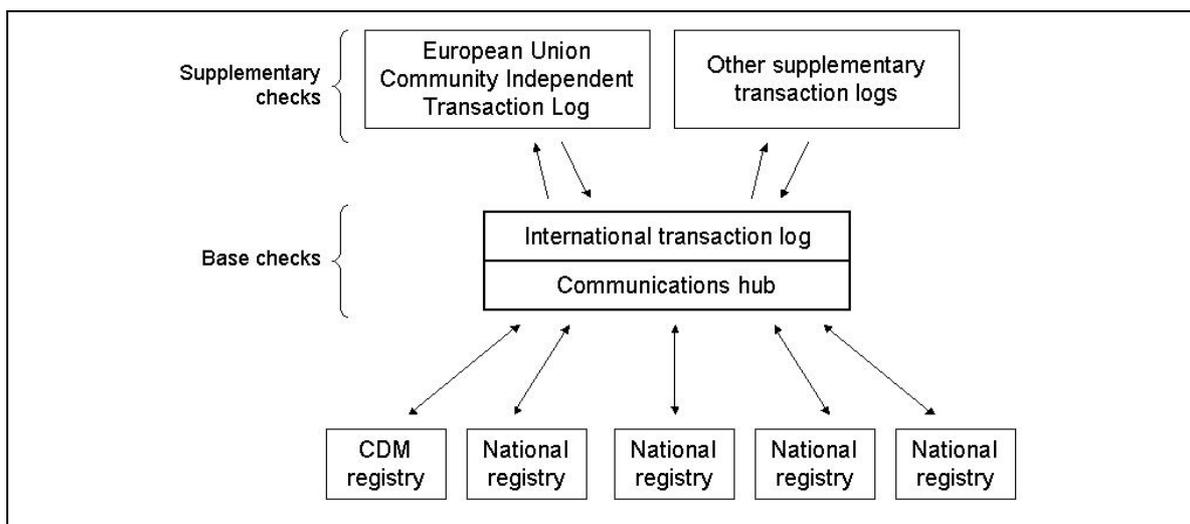
B. Data exchange standards

11.   The network of registry systems requires a minimum level of compatibility in transaction processing and electronic communications. This need was foreseen in decision 19/CP.7, which established work to develop data exchange standards to be implemented in all registry systems.

12.   Decision 24/CP.8 subsequently established the **general design requirements** of the data exchange standards and requested the secretariat, in collaboration with registry experts, to develop **detailed specifications** of these standards which would contain sufficient technical information to enable the compatible implementation of the standards in all registry systems. Decision 16/CP.10 confirmed that the work to elaborate detailed functional and technical specifications of the data exchange standards had been completed in accordance with decision 24/CP.8.[5]

13.   The detailed specifications of the data exchange standards define nine **transaction processes** to be implemented by registries in collaboration with the ITL and, where applicable, STLs. The process steps in each registry system are coordinated through defined **electronic messages** being sent between the ITL and each individual registry or STL. Each transaction process defines the sequence, content, format and security requirements of the messages to be used. The specifications further clarify which records of unit holdings and transactions are to be stored and define **reconciliation processes** through which these records are compared and, where necessary, adjusted to ensure their consistency.

14.   In accordance with decisions 19/CP.7 and 19/CP.9, the data exchange standards cover transactions involving the following units under the Kyoto Protocol:

(a)   **Assigned amount units (AAUs)** issued by Annex B Parties on the basis of their assigned amounts pursuant to Article 3, paragraphs 7 and 8

(b)   **Removal units (RMUs)** issued by Annex B Parties on the basis of their land use, land-use change and forestry (LULUCF) activities under Article 3, paragraphs 3 and 4

(c)   **Emission reduction units (ERUs)** converted from AAUs or RMUs by Annex B Parties on the basis of JI projects under Article 6

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[5] See version 1.0 of the functional specifications and version 1.0 (draft #7) of the technical specifications for the data exchange standards at <http://unfccc.int/meetings/unfccc_calendar/pre-sessional/items/3413.php>.

(d) **Certified emissions reductions (CERs)** issued in the CDM registry upon instruction by the Executive Board on the basis of reductions in emissions certified as occurring through CDM project activities under Article 12

(e) **Temporary certified emission reductions (tCERs)[6]** issued in the CDM registry upon instruction by the Executive Board on the basis of enhanced removals of greenhouse gases (GHGs) certified as occurring through afforestation or reforestation CDM project activities

(f) **Long-term certified emission reductions (lCERs)** issued in the CDM registry upon instruction by the Executive Board on the basis of enhanced removals of GHGs certified as occurring through afforestation or reforestation CDM project activities.

15. In accordance with decisions 19/CP.7 and 19/CP.9, the specifications of the data exchange standards define nine transaction processes for the following transaction types:

(a) **Issuance:** the initial creation of an AAU, RMU, CER, tCER or lCER

(b) **Conversion:** the transformation of an AAU or RMU into an ERU

(c) **External transfer:** the external transfer of a unit from one registry to another registry

(d) **Cancellation:** the internal transfer of a unit to a cancellation account within a registry, in order that it may not be used for compliance with emission targets (five cancellation account types provide for separate tracking of the reasons for cancelling units)[7]

(e) **Replacement:** the internal transfer of a unit to a replacement account within a registry, in order to replace tCERs or lCERs when required (four replacement account types provide for separate tracking of the reasons for replacing units)[8]

(f) **Retirement:** the internal transfer of a unit to a retirement account within a registry, in order that it can be used by the Annex B Party to demonstrate compliance with its

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[6] Participants in afforestation and reforestation project activities under the CDM may select tCERs or lCERs to be issued. tCERs expire at the end of the subsequent commitment period whereas lCERs expire at the end of the crediting period of the project (including where the crediting period is renewed). lCERs must be replaced if certification reports reveal a reversal in GHG removals achieved earlier through the project or if no certification report is submitted within the specified time. tCERs are not subject to these replacement requirements.

[7] Type 1: Net source cancellation (for net LULUCF emissions under Article 3, paragraphs 3 and 4);
Type 2: Non-compliance cancellation (for non-compliance with an emissions commitment in the previous commitment period);
Type 3: Voluntary cancellation (where cancellation is voluntarily carried out by the holder of units);
Type 4: Excess issuance cancellation (where the Executive Board suspends or withdraws the designation of an operational entity and requires that an excess issuance of CERs, tCERs or lCERs be cancelled);
Type 5: Mandatory cancellation (for removing from holding accounts tCERs and lCERs which have expired and, upon expiration of the additional period for fulfilling commitments, any units which have not been carried over to the next commitment period).

[8] Type 1: tCER replacement for expiry (undertaken upon expiry of a tCER);
Type 2: lCER replacement for expiry (undertaken upon expiry of a lCER);
Type 3: lCER replacement for reversal in storage (undertaken where the certification report for an afforestation or reforestation CDM project activity indicates a reversal of net removals by sinks);
Type 4: lCER replacement for non-submission of certification report (undertaken where a certification report has not been provided for an afforestation or reforestation CDM project activity within five years of the last submission of a certification report).

emissions commitment under Article 3, paragraph 1 (each Annex B Party maintains one retirement account for each commitment period)

(g) **Carry-over:** the change of validity, as defined by the *applicable commitment period identifier*, of a unit from one commitment period to the next, in the context of the unit being carried over to a subsequent commitment period

(h) **Expiry date change:** the change in the expiry date of a lCER when the crediting period for a CDM project is renewed, or of a tCER when the end-date of the next commitment period is defined as a date other than that assumed, for technical reasons, upon issuance

(i) **Internal transfer between holding accounts:** the internal transfer of a unit between holding accounts within the same registry, where the registry is subject to rules established by a regional trading scheme (e.g. the EU emissions trading scheme).

16.   The validity of the first eight transaction types is to be monitored and verified by the ITL. These transaction types affect the quantity of units available to Annex B Parties for the purpose of demonstrating compliance with the emission commitments under Article 3, paragraph 1, through either the creation, movement, use or annulment of a unit. The ninth transaction type, internal transfer between holding accounts, is not to be verified by the ITL. However, in cases where the registry concerned is a member of a regional trading scheme to which an STL is associated, information on proposed internal transfers may be transmitted to an STL for its verification.

III. Overview of transaction processes

17.   The ITL, and more widely all registry systems, are integrated with other processes established under the Kyoto Protocol to **monitor and assess the compliance of Annex B Parties** with their emissions commitments under Article 3, paragraph 1. The other processes include the reporting of information under Article 7, the review of that information under Article 8, procedures relating to the Compliance Committee under Article 18, and modalities and procedures for emissions trading under Article 17 and for JI and CDM projects under Articles 6 and 12.

18.   This note focuses on the transactions undertaken by registries, under the verification of their validity by the ITL. However, the basis for such transactions must be first established through the information resulting from the reporting, review and compliance procedures under the Protocol and the procedures under the CDM and JI. The results of registry transactions are reflected in later cycles of reporting, review and compliance relating to assigned amount information, thereby offering an opportunity to make any corrections necessary and conferring official status on the aggregate results of registry transactions. This chapter provides an overview of these processes.

A. Processes undertaken before registry system functions

19.   Many registry transactions are to be undertaken directly on the basis of the following reference information determined through other processes under the Kyoto Protocol:

(a) Official information for each Annex B Party, as determined through the reporting of information under Article 7, the review of that information under Article 8 and procedures under Article 18 relating to compliance. For example, the issuance of AAUs may not exceed the officially recognized level of the assigned amount for the Party

(b) Project information specified under procedures established by the Executive Board of the CDM and the Article 6 Supervisory Committee. For example, the issuance of CERs may not exceed the certified level of reductions from a CDM project activity.

20.   Table 1 shows the transaction types which occur on the basis of official information for Annex B Parties and identifies the specific information required and the manner in which it is determined.

21.   All official information for Annex B Parties is determined on the basis of information reported by Parties relating to their GHG emissions inventories and assigned amounts. The reporting of inventory information under the Kyoto Protocol begins before the commitment period in the **report to facilitate the calculation of assigned amounts** under Article 7, paragraph 4. This information is subject to an initial, pre-commitment-period review by an expert review team (ERT) under Article 8. The Party subsequently makes an **annual submission** of inventory and assigned amount information on its holdings and transactions of units. From this point onwards, the information submitted annually under Article 7, paragraph 1, is subject to annual reviews by ERTs.

Table 1. Official information for Annex B Parties used in registry transactions

Official information	Transaction/unit	Process of determination
Assigned amount pursuant to Article 3, paragraphs 7 and 8	Issuance of AAUs	Assigned amount is calculated in accordance with Article 3, paragraphs 7 and 8, on the basis of GHG inventory information submitted by the Party for its base year in its report under Article 7, paragraph 4. Both the calculation submitted by the Party and its inventory information are included in the initial review of the Party and may be subject to correction or adjustment by the Compliance Committee
Commitment period reserve (CPR)	External transfers	The CPR is calculated as 90 per cent of the assigned amount of a Party or 100 per cent of five times the annual emissions from its latest inventory submission, whichever is lower. The calculation is included by the Party in its initial and annual reports, reviewed under Article 8. If necessary, the CPR may be subject to a correction by the Compliance Committee
Net removals or net emissions from LULUCF activities under Article 3, paragraphs 3 and 4	Issuance of RMUs (in case of net removals) Cancellation of units (in case of net emissions)	The identification of the accounting period for each activity under Article 3, paragraphs 3 and 4, and the election of activities under Article 3, paragraph 4, is submitted by the Party in its report under Article 7, paragraph 4, and recorded in the C&A database. Information on removals and emissions is submitted annually by the Party under Article 7, paragraph 1. It is included in the annual review and subject to potential adjustment by the Compliance Committee. Net removals from each activity may be accounted, for RMU issuance purposes, only up to the limits established in decision 11/CP.7
Mechanisms eligibility	External transfers and acquisitions Retirement of CERs, tCERs or lCERs	Eligibility criteria for an Annex B Party are deemed to be fulfilled 16 months after the submission of its report under Article 7, paragraph 4, unless the Compliance Committee finds that the Party does not meet these criteria. The C&A database records whether Parties meet individual criteria. If the Committee suspends the eligibility of a Party at any time following the initial review, the C&A database will be updated
Units available for carry-over at the end of the true-up period	Carry-over	The secretariat includes information, in the final C&A report of each Annex B Party, on the quantities of each unit type which may be carried over, based on the official data for each Party in the C&A database. This information needs to take account of the limits on carry-over which apply to each type of unit

22.   The **review reports** prepared by ERTs are forwarded to the Compliance Committee established under Article 18 in a manner which identifies any **questions of implementation** raised by ERTs. The Compliance Committee decides whether to proceed with any of the questions of implementation. Where it does proceed, the Committee carries out its procedures, including interaction with the Party concerned, and may decide to apply an **adjustment** to the inventory information of the Party or a **correction** to the assigned amount information of the Party. In addition, the Committee may determine that a Party does not meet any of the eligibility requirements to participate in the mechanisms under the Kyoto Protocol.

23.   Any adjustments or corrections are recorded alongside the information originally submitted by the Party in the **compilation and accounting (C&A) database** in the secretariat. At this stage, the information for each Annex B Party, as adjusted or corrected by the Compliance Committee, as appropriate, is deemed to be **official** and is sent to the ITL for its reference in applying its checks.

24.   A special case applies to the end of the additional period for fulfilling commitments **(the "true-up" period)**.[9] Each Annex B Party is to submit assigned amount information for review in relation to the current calendar year up until the end of the true-up period.[10] Any corrections of assigned amount information applied by the Compliance Committee would be recorded in the C&A database. This information is the last component required to complete the official information on emissions and assigned amount for the full commitment period. On this basis, the secretariat prepares a final **C&A report** for each Annex B Party, indicating the quantities of each unit type which may be carried over to the next commitment period or the level of non-compliance by the Party with its emissions commitment under Article 3, paragraph 1.

25.   Table 2 shows the transaction types which need to occur on the basis of project information determined under procedures established by the CDM Executive Board and the Article 6 Supervisory Committee[11] and identifies the specific information required and the manner in which it is determined.

26.   Information on emission reductions or enhanced removals through registered CDM project activities is monitored by project participants and verified by designated operational entities (DOEs). Verification reports are periodically provided by the DOE to the Executive Board, each with a certification report by the DOE stating the level of emission reductions or enhanced removals that have occurred through the project over a specific time. After a period of 15 days from their receipt, unless a review by the Board is initiated in relation to the certification, these amounts are considered final and the Board instructs the CDM registry administrator to undertake the specified issuance.

27.   In the case of JI projects verified under the Article 6 Supervisory Committee, reductions and enhancements are monitored by project participants and determined by accredited independent entities. These are deemed final after 15 days, unless the Committee initiates a review of the determination.

28.   Up-to-date information, as described in tables 1 and 2, needs to be available to the ITL. An **electronic link** is to be established through which official information for Annex B Parties will be automatically "pushed" to the ITL as soon as it is entered into the C&A database. Similar electronic links are to be established through which project data will be pushed to the ITL when it is recorded in the information systems of the secretariat for managing information on the CDM and JI.

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[9] The true-up period is to end, for all Annex B Parties, 100 days after the date agreed for the completion of the review process under Article 8 for the last year of the commitment period. All registry transactions on the basis of that commitment period are to cease at the latest on this date.

[10] In accordance with decision 22/CP.8, this information is to be submitted in mid-2015, together with the reporting of assigned amount information for the 2014 calendar year.

[11] JI projects must be verified under the procedures for the Article 6 Supervisory Committee where the host Annex B Party does not meet the eligibility criteria set out in decision 16/CP.7. Where the host Party is deemed to meet these criteria, it may verify JI projects under its own procedures or those of the Committee.

Table 2. Project information used in registry transactions

Project information	Transaction/unit	Process of determination
Emission reductions or enhanced removals through CDM project activities	Issuance of CDM units	Emission reductions or enhanced removals are certified by DOEs to the Executive Board of the CDM. On this basis, the Board gives instructions to the CDM registry to issue a quantity of CERs, tCERs or lCERs
Excess issuance of CERs, tCERs or lCERs	Cancellation	Where the Executive Board determines, in the context of suspending or withdrawing the designation of a DOE, that excess CERs, tCERs or lCERs have been issued, it may require a DOE to cancel units (not necessarily CERs, tCERs or lCERs)
Reversal in removals relating to an afforestation or reforestation CDM project activity	Replacement of lCERs	Where a certification report for a project, which has generated lCERs, indicates a reversal in removals since the last certification report for the project, the Executive Board may require a quantity of lCERs to be replaced by other units
Failure to submit a certification report for an afforestation or reforestation CDM project activity	Replacement of lCERs	Where no certification report is received for a project, which has generated lCERs, within five years of the last certification, the Executive Board may require the replacement with other units of all lCERs issued for the project
Emission reductions or enhanced removals through a JI project verified under the Article 6 Supervisory Committee (track 2)	Conversion of AAUs or RMUs to ERUs	Where a JI project is verified under the Article 6 Supervisory Committee, emission reductions or enhanced removals are monitored by project participants and determined by accredited independent entities

B. Processes undertaken as part of registry system functions

29.   Once the reference information has been determined and passed to the ITL, as discussed in section III.A, registries may initiate transactions. A registry initiates a transaction by generating and sending a **proposal message** to the ITL containing information on the transaction it wishes to undertake, such as the unit type, the quantity and serial numbers of the units, and the type of accounts involved. The message is marked with the transaction status *proposed.* The information in this message enables the ITL to perform its checks on the proposed transaction, before it has been completed, to verify that it conforms to the rules established under the Kyoto Protocol.

30.   Before conducting any checks relating to the policy aspects of the Kyoto Protocol, however, the ITL ensures that the message is compatible with the specifications set by the data exchange standards. The data exchange standards act, in effect, as a language between registry systems. A message which does not conform to this language, for example through information being missing or incorrectly formatted, cannot be understood or processed by the system receiving it.

31.   The following categories of technical ITL checks have been derived from the specifications of the data exchange standards (see annex I for detailed lists of these checks):

   (a)   **Version and authentication checks** authenticate the identity of a registry or STL before any further processing is undertaken and confirm that the appropriate version of the data exchange standards has been used. Such authentication, in addition to the security and encryption standards put in place, forms a further line of defence against security risks and ensures that the ITL knows which system it is dealing with

(b)   **Message viability checks** ensure that the message is viable for processing. In particular, messages lapse in the ITL if they are not processed with 24 hours of receipt

(c)   **Registry status checks** ensure that the registry has the technical status to undertake the proposed transaction. Registries may have the status of *full operation*, *reconciliation only* or *not operating*. This status is initially assigned during the testing processes through which the communications with the ITL are initialized. A registry may subsequently downgrade its status, for example to undertake maintenance work

(d)   **Data integrity checks** verify that the contents of the message are complete and formatted in the appropriate manner. As well as quantity information, the messages contain many codes and identifiers through which information is communicated

(e)   **Message sequence checks** verify that messages received from registries and STLs are communicated in the sequence defined by the data exchange standards. These checks rely on transaction and reconciliation status codes defined for each process.

32.   Any proposal message which passes the above technical checks can be read and processed by the ITL. The information has been found to be meaningful and is considered to be a sufficient basis on which the ITL may verify the conformity of the transaction with policy aspects of the Kyoto Protocol.

33.   The following categories of policy-related ITL checks have been derived from COP decisions,[12] in particular the Marrakesh Accords, setting out the modalities, rules and limits which are to apply (see annex II for detailed lists of these checks):

(a)   **General transaction checks** are general in that they are performed on proposal messages relating to all transactions types (except issuance). For example, the checks confirm that the units are held by the registry initiating the transaction (see check 49 in annex II), are not involved in another transaction (check 56), and have not previously been cancelled or retired (checks 57 and 58)

(b)   **Transaction-specific checks** are further differentiated by transaction type, such that only relevant checks are applied to a particular transaction. The range of issues addressed in this category reflects the range of actions that may be undertaken by registries and the diversity of the rules under the Kyoto Protocol to be applied to each transaction type. For example:

(i)   An issuance transaction is checked to confirm that CERs are issued only in the CDM registry (check 64), that the serial numbers to be used have not been used previously (check 68), and that the quantity of AAUs to be issued does not exceed the level of assigned amount recorded in the C&A database (check 69)

(ii)   An external transfer of units from one registry to another is checked to confirm that the transferring Party is eligible to participate in such transactions (checks 88 and 89), that the acquiring Party is also eligible (check 90), and that the transfer would not violate the commitment period reserve (CPR) of the transferring registry (check 91).

34.   Annex III provides the same information on the ITL checks as annexes I and II, but reverses the mapping to put first the specific paragraphs of the relevant COP decisions. Check numbers are given against each paragraph to indicate which checks have been defined to implement the provision.

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[12] Decisions 11/CP.7, 16/CP.7, 17/CP.7, 18/CP.7, 19/CP.7, 24/CP.7, 24/CP.8 and 19/CP.9.

35.   If the proposal message also passes the policy-related checks, the ITL sends a positive **check message** to the relevant registry indicating that no discrepancies from the rules under the Kyoto Protocol were identified in the transaction proposal. Such a message is marked with a status of *checked (no discrepancy)* and signals to the registry that it may proceed to the next step in completing the transaction. In transactions other than external transfers, this check message is sent to the registry which initiated the transaction. In the external transfer case, the message is sent to the acquiring registry.

36.   However, if one of the technical or policy-related checks of the ITL fails, the checks in the remaining categories are not carried out and a negative check message, marked with a status of *checked (discrepancy)* is sent to the initiating registry.[13] In such cases, this registry is required, under decision 19/CP.7, to terminate the transaction. The check message carries a **response code** which indicates which check failed and hence the nature of the discrepancy (see annexes I and II). The registry is able to use this information in rectifying the problem and resending the message.

37.   An additional step is included in the data exchange standards for cases where the transaction proposal involves the registry of a Party participating in a **regional trading scheme** for which an STL has been established. Instead of prompting an immediate check message to the registry, a positive result on all the ITL checks is followed by forwarding the contents of the proposal message to the STL to allow it to carry out its supplementary checks on the transaction. The STL informs the ITL of its check results.

38.   In transactions other than external transfers, the receipt of a positive check message from the ITL means that the registry may choose to complete or terminate the transaction it originally proposed. In the **termination case**, the registry stops processing the transaction. However, in the **completion case**, the registry commits the updates of its records of unit holdings and transactions in its database in a manner consistent with the transaction proposal. The registry returns a **confirmation message** to inform the ITL of its actions. The ITL updates its own database and, where relevant, forwards the confirmation to the STL concerned in order that it may also update its database.

39.   The information to be recorded in the databases of registries, the ITL and STLs is defined in the data exchange standards and should always be consistent upon completion of a transaction. However, in order to address cases where the databases record information inconsistently, a **reconciliation process** is defined by the data exchange standards to compare data between the ITL and other systems and, where necessary, adjust data in the system which had not acted consistently with the data exchange standards.

40.   The reconciliation process proceeds in the following three stages:

    (a)   A comparison of **total unit holdings**, by unit type and account type, may be conducted on a frequent basis as the data volumes are not substantial

    (b)   Where an inconsistency is revealed in total unit holdings, records of **serial numbers** of any unit type or account type are compared

    (c)   Where specific unit serial numbers are identified for which records are inconsistent between the ITL and other systems, **logs** of transaction data and database changes are compared to reveal which system acted inconsistently with the data exchange standards.

41.   The three stages are designed to progressively "drill down" through the data to discover the nature of the inconsistency and indicate how it should be rectified.[14] This allows the administrator of the

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[13] The one exception is version and authentication checks. Where one of these checks fails, no further processing steps are undertaken as the transmitting system cannot be properly identified.

[14] It is also necessary to undertake the second stage of the reconciliation process on a regular basis, even where no inconsistency in the information on total unit holdings has been discovered. This would identify any cases where multiple inconsistencies arise which cancel each other out in the data on total unit holdings.

system for which the data are recorded wrongly to **manually intervene** in the database in order to correct the records. Such actions are also to be logged in accordance with the data exchange standards.

42.   Where a registry continues with a transaction, despite it having failed a check by the ITL, an inconsistency with the ITL database will arise as the ITL does not recognize that the transaction has taken place. The reconciliation process therefore provides an opportunity to identify and resolve such inconsistent records of units. Where inconsistencies are not resolved, any subsequent transaction proposals involving such units will cause the ITL checks to fail again (check 54 in annex II).

43.   The timing of most transactions is decided in accordance with the preferences of Parties or account holders. Some timing constraints, however, have been set in the relevant COP decisions for transactions required under the Kyoto Protocol, in particular for the cancellation and replacement of units. The data exchange standards define a set of **electronic notifications** to be sent by the ITL to registries as announcements that a particular transaction is required to take place within a specified period (typically within 30 days). These cases are taken up in section IV.B.

44.   Each notification is marked with a **notification identifier** to be included in proposal messages sent by registries to the ITL. The inclusion of this identifier indicates to which requirement the transaction is to contribute and enables the ITL to monitor the extent to which the requirements are fulfilled. Such monitoring generally occurs through generating totals for all the transactions undertaken which are relevant to a notification identifier. In the case of the replacement of tCERs and lCERs upon their expiry, such monitoring occurs through assessing whether all tCERs and lCERs for which the serial numbers were specified in a notification have been replaced by the time of their expiry.

C. Processes undertaken after registry system functions

45.   Parties are to include in their annual report under Article 7, paragraph 1, information on all registry transactions that occurred in the previous calendar year which impact upon the quantity of units available to Annex B Parties for the purpose of demonstrating compliance with the emission commitments under Article 3, paragraph 1. As described in section III.A, this information is reviewed annually under Article 8 and any questions of implementation are highlighted in the review reports sent to the Compliance Committee. Corrections to the submitted assigned amount data may be applied by the Compliance Committee and these would be recorded together with the submitted information in the C&A database as official information for the Party.

46.   Additionally, in accordance with decision 16/CP.10, the ITL is to make information on discrepancies, inconsistencies and required transactions publicly available. This information will also be made available to ERTs to facilitate their work under Article 8.

47.   These processes provide a further assurance that the transactions undertaken by Parties are in conformity with the modalities, rules and limits established under the Kyoto Protocol. In any cases where a registry has continued with a transaction, despite it having failed a check by the ITL, and the resulting inconsistency with the ITL database has not been resolved through the reconciliation process, the review and compliance processes provide a further means to resolve the issue.

IV. Registry transaction scenarios

48.   This chapter contains "storylines" describing the processes as they apply to specific transaction scenarios undertaken by registries. As discussed in chapter III, transactions are based on reference information determined by other processes under the Kyoto Protocol and the results of these transactions are subsequently reflected in later cycles of the same reporting, review and compliance processes.

49.   Three main categories of transaction scenarios are differentiated in this section. Each category is illustrated by describing a representative transaction scenario in detail and following this with additional information on how other transaction scenarios within that category differ from the representative case.

50.   The following transaction scenario categories are elaborated in this section:

(a)   **Single-registry transactions without ITL notifications** are illustrated primarily through a transaction to issue AAUs into a national registry (see figure 2)

(b)   **Single-registry transactions with ITL notifications** are illustrated primarily through a transaction to cancel units in a national registry for net emissions from a LULUCF activity under Article 3, paragraphs 3 and 4 (see figure 3)

(c)   **Two-registry transactions** are illustrated through a transaction to transfer units from one registry to another (see figure 4).

51.   Most transaction scenarios follow the single-registry model in which one registry interacts with the ITL. Such transactions may be prompted by the ITL sending a notification to the registry. External transfers of units between registries represent a special case in which two registries interact with the ITL.

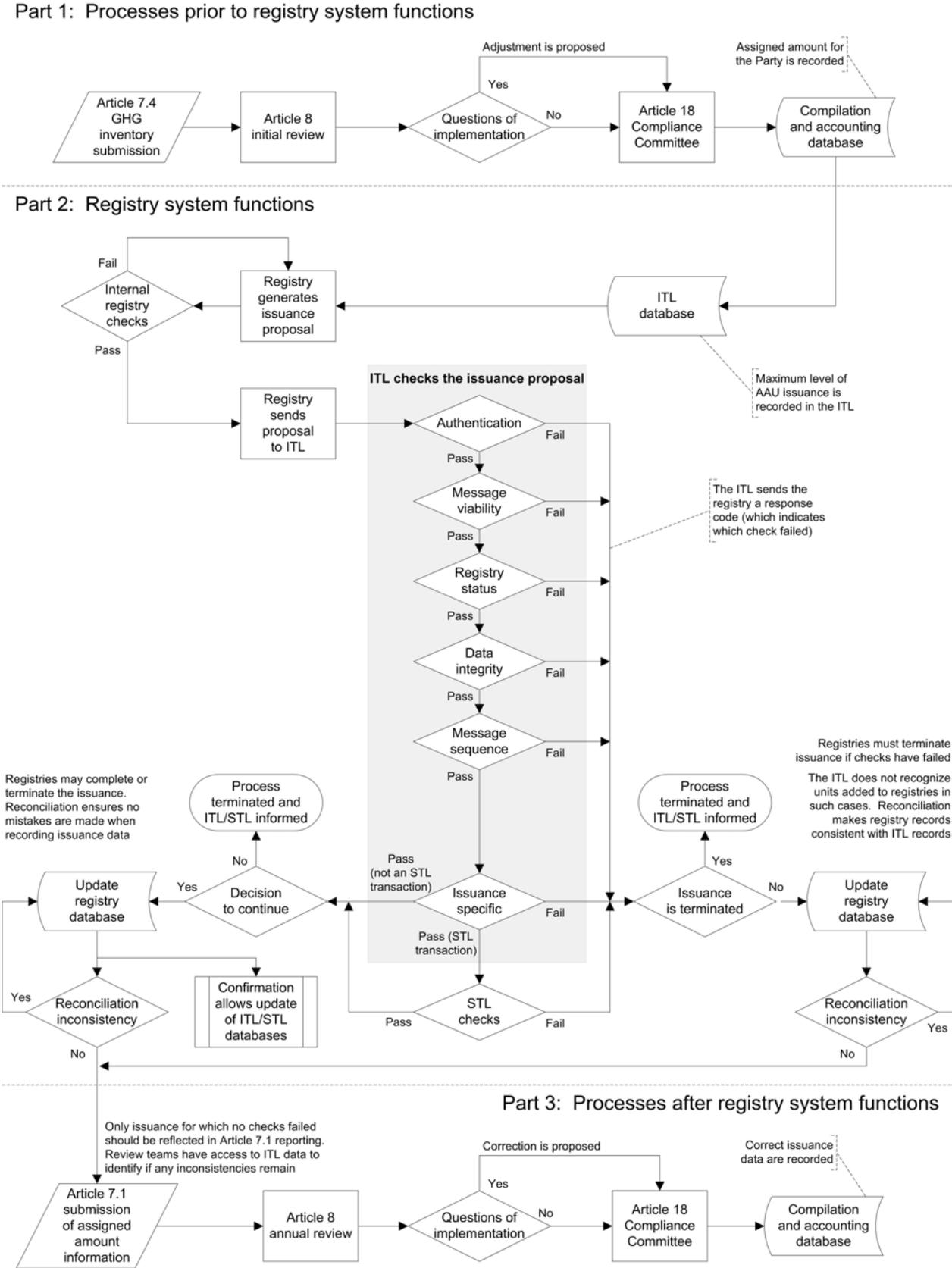## A. Single-registry transactions without notifications

1. Issuance of assigned amount units

52.   As described in section III.A, Annex B Parties may issue quantities of AAUs in their national registries up to the level of the assigned amount calculated for the Party and recorded in the C&A database. Once this amount is recorded for a Party, the national registry may begin such issuance. This may be undertaken through multiple issuance transactions, as long as the ITL does not indicate that the level of the assigned amount for the Party would be exceeded. These processes are illustrated in figure 2.

53.   Specifically, **prior to an issuance transaction taking place**, a Party submits emissions inventory information for its base year as part of its report to facilitate the calculation of assigned amounts under Article 7, paragraph 4, and makes a calculation of its assigned amount based on its emissions commitment in Annex B and in accordance with Article 3, paragraphs 7 and 8. This information is included in the initial review under Article 8, carried out prior to the commitment period by an ERT which reviews the information and seeks to resolve with the Party any issues arising.

54.   Where an issue with the inventory information or assigned amount calculation of a Party remains unresolved after the review, the ERT forwards it as a question of implementation to the Compliance Committee and includes a proposal on how this information may be adjusted or corrected. The Compliance Committee may decide to apply the ERT proposal or a proposal of its own, or may decide there are no grounds for proceeding. The calculation of the assigned amount, modified as necessary by the Compliance Committee, becomes the official assigned amount of the Party concerned. It is recorded in the C&A database, which forwards the official information to the ITL in order to facilitate its checks.

Figure 2. Issuance of assigned amount units

Part 1: Processes prior to registry system functions

Part 2: Registry system functions

ITL checks the issuance proposal

Registries may complete or terminate the issuance. Reconciliation ensures no mistakes are made when recording issuance data

Registries must terminate issuance if checks have failed

The ITL does not recognize units added to registries in such cases. Reconciliation makes registry records consistent with ITL records

The ITL sends the registry a response code (which indicates which check failed)

Maximum level of AAU issuance is recorded in the ITL

Assigned amount for the Party is recorded

Part 3: Processes after registry system functions

Only issuance for which no checks failed should be reflected in Article 7.1 reporting. Review teams have access to ITL data to identify if any inconsistencies remain

Correct issuance data are recorded

55.   At this point, the ITL informs the registry that its issuance of AAUs may begin. The registry initiates a first **issuance transaction** for this purpose by generating the electronic proposal message defined by the data exchange standards. This message identifies the transaction type (issuance), unit type (AAUs), quantity and serial numbers of units to be issued, and an identification code for the transaction. The registry may carry out internal tests to identify any incomplete, inaccurate or poorly formatted data in the message. Once such internal tests are passed, the registry transmits the message to the ITL, using the procedures and security measures defined in the data exchange standards.

56.   The receipt of the message by the ITL allows it to carry out its checks to verify that the proposed transaction is in conformity with the rules under the Kyoto Protocol. The early checks are technical in nature (see annex I). If the proposal passes each of these checks, the ITL begins the transaction-specific checks for an issuance transaction.[15] These checks are of a more policy-related nature (see annex II).

57.   A different set of transaction-specific checks is defined for each transaction type. In the case of issuing AAUs, key transaction-specific checks are to ensure the following:

(a)   The AAUs are to be issued into a national registry (check 62 in annex II)

(b)   Only one unit type is to be issued (check 65)

(c)   The *original commitment period identifier* is the same for all AAUs being issued and is the same as the *applicable commitment period identifier* (checks 66 and 67)

(d)   Serial numbers for the AAUs have not been previously allocated (check 68)

(e)   The quantity of AAUs being issued does not cause the total issuance of these units to exceed the quantity recorded in the C&A database for the assigned amount pursuant to Article 3, paragraphs 7 and 8, of the Annex B Party (check 69).

58.   Where the proposed transaction passes all the relevant ITL checks, the ITL assesses if it needs to forward the message to an STL for further checking under the rules of a regional trading scheme. Any results of STL checks are added to the results of the ITL checks. A pass result is signalled to the registry through a positive check message. The registry may then complete the transaction by recording the newly issued AAUs in its database, or terminate it. The registry sends the ITL a confirmation of the actions it has undertaken in order to allow the ITL to update its database and, where relevant, send the message to the STL for it to do the same.

59.   If any of the ITL or STL checks fail, the ITL sends a negative check message to the registry with a response code describing the nature of the failure. In this case, the registry is required to terminate the transaction. Where the registry does not terminate and instead updates its database without the ITL validation, it causes inconsistencies between the records held in the registry and ITL databases. These inconsistencies would be identified through the reconciliation process and should be corrected. Until the inconsistencies are resolved, the ITL does not recognize the units as being issued and any subsequent transactions in which these units are involved would fail the ITL checks.

60.   **After the issuance transaction has taken place**, the issuance of AAUs is included in the annual reporting of the Party under Article 7, paragraph 1, for the calendar year, and is subject to the annual review under Article 8. The ERT would have available to it aggregate information from the ITL on unit holdings and transactions in the registry of that Party for the calendar year, as well as information on any unresolved inconsistencies. Where the ERT is not able to resolve remaining inconsistencies, it may identify a question of implementation to the Compliance Committee and propose a correction in the

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[15] General checks, which check the units in the proposal message against records of units already in existence, do not apply to issuance transactions.

information regarding the issuance of the AAUs. Where the Compliance Committee approves a correction, it is used within the C&A database to modify the information submitted by the Party.

2. Issuance of removal units

61.   The issuance of RMUs follows broadly the same procedure as the issuance of AAUs shown in figure 2. Information on enhanced removals of GHGs through LULUCF activities under Article 3, paragraphs 3 and 4, is reported by each Annex B Party but may lead to the issuance of RMUs only when this information has passed through the review and compliance procedures and any adjustments have been applied. However, the information recorded in the C&A database and sent to the ITL is more complex than in the AAU issuance case, because of the following:

(a)   The information needs to be distinguished by each LULUCF activity under Article 3, paragraph 3, and by each of the activities under Article 3, paragraph 4, which the Party indicated in its report under Article 7, paragraph 4, that it has elected to use

(b)   In addition to assessing the level of removals from each activity, the review and compliance procedures need to provide information for the C&A database on the quantity of RMUs for each activity which may be issued on the basis of these removals. Such quantities must take into account whether the RMUs are to be issued annually or once for the entire commitment period. These quantities may not exceed the limits for each activity under Article 3, paragraph 4, as specified in decision 11/CP.7.

62.   The result is that the maximum quantities of RMU issuance are specific to the activity and the time period in which they may be issued. If RMUs from a particular activity are to be issued on the basis of the entire commitment period, the maximum quantity for this activity will be zero until the end of the commitment period. These maximum quantities permit the ITL to check that the issuance proposed by a registry does not exceed the allowable quantity for the activity for the particular period. Where a Party elected to issue RMUs for an activity on an annual basis but decides to delay the issuance, the ITL checks each issuance proposal against a running total of allowable issuance for that activity.

3. Issuance of units under the clean development mechanism

63.   Unlike the issuance of AAUs, for which the quantity of issuance is determined through the reporting and review of Party information, the quantities of CERs, tCERs or lCERs to be issued in the CDM registry are determined by the Executive Board on the basis of project-monitoring data which have been certified by a DOE. These quantities are communicated to the ITL via the information system established by the secretariat for the management of CDM information. Nevertheless, the processes implemented by CDM registry and the ITL, as well as the processes implemented after registry transactions have been completed, broadly follow those shown in parts 2 and 3 of figure 2.

64.   Key differences in the transaction-specific checks for the issuance of CERs, tCERs or lCERs (compared to the issuance of AAUs) are to ensure that:

(a)   The units are to be issued into the CDM registry (check 64 in annex II)

(b)   CERs are to be issued for emission reduction projects and tCERs or lCERs are to be issued for afforestation and reforestation projects (check 71)

(c)   The choice of tCERs or lCERs is consistent with previous issuance (check 72)

(d)   The quantity of CERs, tCERs or lCERs to be issued does not cause the total issuance of these units to exceed the quantity recorded in the CDM information system and sent to the ITL (check 73)

(e)   A valid project identifier is to be present in the serial numbers to be allocated (check 75)

(f)   Expiry dates are specified for tCERs and lCERs, consistent with the end of the second commitment period and the end of the project crediting period (checks 76 and 77).

4. Conversion of units to emission reduction units

65.   Unlike for the issuance of AAUs, the general transaction checks are performed by the ITL for the conversion of AAUs and RMUs to ERUs on the basis of JI projects. These general checks compare the units in the proposal message against records of units already in existence. Nevertheless, the processes implemented by national registries and the ITL, as well as the processes implemented after registry transactions have been completed, follow those shown in parts 2 and 3 of figure 2.

66.   The Article 6 Supervisory Committee is to supervise the verification of ERUs under procedures known as the track 2 procedures. The Committee determines the quantities of units that may be converted by national registries on the basis of project information verified by independent entities. These quantities are sent to the ITL by the JI information system established by the secretariat for managing information on projects verified under track 2. However, where a host Party of a JI project meets the eligibility requirements to participate in JI, it may verify JI projects under its own track 1 procedures. In this case, there is no independent source of information on appropriate conversion quantities and no check by the ITL of conversion quantities is possible.

67.   Key differences in the transaction-specific checks for the conversion of units to ERUs (compared to the issuance of AAUs) are to ensure that:

(a)   A Party converting units with a track 1 identifier meets all six eligibility criteria for participation in JI (check 80 in annex II)

(b)   A Party converting units with a track 2 identifier meets the three eligibility criteria for participation in JI specified in decision 16/CP.7 (check 81)

(c)   The AAUs and RMUs to be converted were originally issued by the Party undertaking the conversion transaction (check 84)

(d)   A valid project identifier is to be added to the serial numbers of the units (check 85)

(e)   AAUs are to be converted for emission reduction projects and RMUs are to be converted for LULUCF projects (check 86)

(f)   For track 2 projects, the quantity of AAUS or RMUs to be converted does not cause the total conversion to exceed the quantity recorded in the JI information system and sent to the ITL (check 87).

5. Voluntary cancellation

68.   Units may be transferred to a voluntary cancellation account[16] in a national registry at any time in order to disable them from being counted towards an emissions commitment of a Party under the Kyoto Protocol or of a trading entity under a regional or national emissions trading scheme. The quantity of units to be cancelled in each transaction is determined by the unit holder. Once the transaction is initiated, the processes for national registries and the ITL, as well as the processes implemented after registry transactions have been completed, follow those shown in parts 2 and 3 of figure 2.

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[16] The term "voluntary" is used in the data exchange standards to denote cancellation that is voluntary from the perspective of Annex B Party commitments under the Kyoto Protocol. Regional or national emissions trading schemes may nevertheless require trading entities, on a mandatory basis, to transfer units to the "voluntary" cancellation account established in a national registry.

6. Retirement

69.   Units may be transferred to the retirement account in the national registry of an Annex B Party at any time in order to count them towards an emissions commitment of a Party under the Kyoto Protocol. The quantity of units to be retired in each transaction is determined by the unit holder. Once the retirement transaction is initiated, the processes for national registries and the ITL, as well as processes implemented after registry transactions have been completed, follow those in parts 2 and 3 of figure 2.

70.   Key differences in the transaction-specific checks for the retirement of units (compared to the issuance of AAUs) are to ensure that:

(a)   The units are to be transferred into the retirement account of a national registry (checks 124 and 123 in annex II)

(b)   The Party of a registry retiring CERs, tCERs or lCERs meets all six eligibility criteria for participation in the CDM (check 127)

(c)   The *applicable commitment period identifier* of the units matches that for the retirement account (check 126)

(d)   Any retirement of tCERs and lCERs does not cause the total retirement of these units to exceed 1 per cent of the assigned amount pursuant to Article 3, paragraphs 7 and 8, of the Party (check 128).

B. Single-registry transactions with notifications
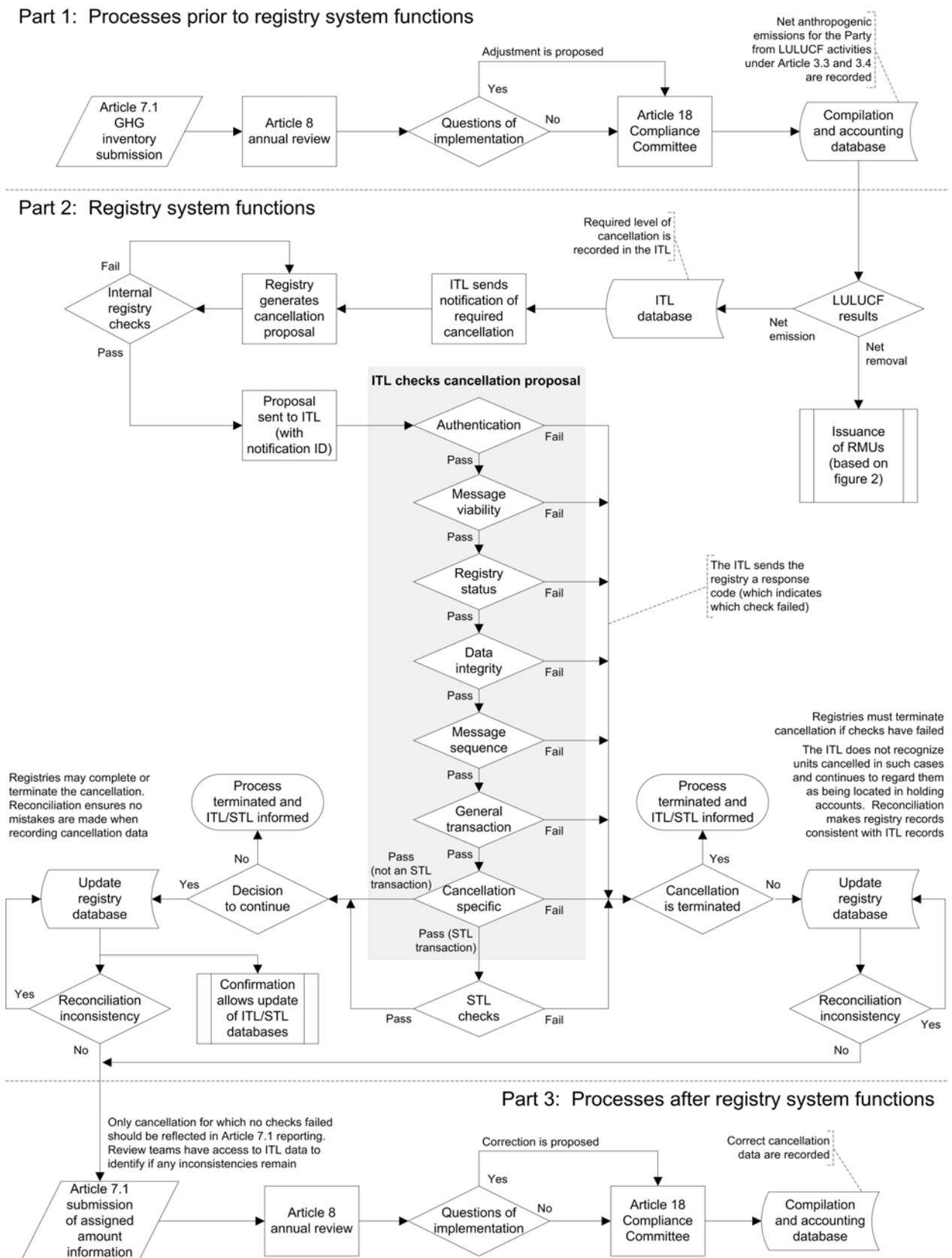
1. Cancellation for activities under Article 3, paragraphs 3 and 4

71.   The reporting on a LULUCF activity under Article 3, paragraphs 3 and 4, may reveal either a net removal of GHGs (see issuance of RMUs in section III.A) or a net emission from the activity. In the case of a LULUCF activity being a net source of emissions, a quantity of units (AAUs, RMUs, ERUs and CERs) equivalent to the net emissions needs to be cancelled. These processes are illustrated in figure 3.

72.   Specifically, **prior to a cancellation transaction taking place**, the information on emissions and removals from LULUCF activities is reported annually by Parties under Article 7, paragraph 1, and is subject to the annual Article 8 review procedures and the procedures of the Compliance Committee. These procedures may, where warranted, propose and approve an adjustment of the emissions and removals information submitted by the Parties. The amount of net emissions from each LULUCF activity is recorded in the C&A database, taking in account whether the LULUCF accounting for the activity is to be conducted annually or once for the entire commitment period, and sent to the ITL.

73.   At this point, the ITL generates an electronic notification for each Annex B Party for which a LULUCF activity has been a net source of emissions. This notification contains a notification identifier and information on the quantity of units to be cancelled in the registry in question within 30 days (see section III.B). The registry initiates a first **cancellation transaction** by generating the electronic proposal message identifying the transaction type (cancellation), unit type, quantity and serial numbers of units to be issued, and an identification code for the transaction. After any internal tests are completed, the registry transmits the message to the ITL in accordance with the data exchange standards.

Figure 3. Cancellation for a net source in LULUCF activities

Part 1: Processes prior to registry system functions

Article 7.1 GHG inventory submission → Article 8 annual review → Questions of implementation

Adjustment is proposed — Yes

No → Article 18 Compliance Committee → Compilation and accounting database

Net anthropogenic emissions for the Party from LULUCF activities under Article 3.3 and 3.4 are recorded

Part 2: Registry system functions

Fail → Internal registry checks

Registry generates cancellation proposal ← ITL sends notification of required cancellation ← ITL database ← LULUCF results

Required level of cancellation is recorded in the ITL

Net emission

Net removal → Issuance of RMUs (based on figure 2)

Pass → Proposal sent to ITL (with notification ID) → **ITL checks cancellation proposal**

Authentication — Fail
Pass
Message viability — Fail
Pass
Registry status — Fail
Pass
Data integrity — Fail
Pass
Message sequence — Fail
Pass
General transaction — Fail
Pass

The ITL sends the registry a response code (which indicates which check failed)

Registries must terminate cancellation if checks have failed

The ITL does not recognize units cancelled in such cases and continues to regard them as being located in holding accounts. Reconciliation makes registry records consistent with ITL records

Registries may complete or terminate the cancellation. Reconciliation ensures no mistakes are made when recording cancellation data

Process terminated and ITL/STL informed

No ← Decision to continue — Yes → Update registry database

Pass (not an STL transaction) → Cancellation specific — Fail
Pass (STL transaction)

Process terminated and ITL/STL informed — Yes

No → Update registry database

Cancellation is terminated

Yes → Reconciliation inconsistency → No

Confirmation allows update of ITL/STL databases

STL checks — Pass / Fail

Reconciliation inconsistency — Yes / No

Part 3: Processes after registry system functions

Only cancellation for which no checks failed should be reflected in Article 7.1 reporting. Review teams have access to ITL data to identify if any inconsistencies remain

Article 7.1 submission of assigned amount information → Article 8 annual review → Questions of implementation

Correction is proposed — Yes

No → Article 18 Compliance Committee → Compilation and accounting database

Correct cancellation data are recorded

74. The contents of the message allow the ITL to carry out its technical and policy-related checks to verify that the proposed transaction is in conformity with the rules under the Kyoto Protocol. In the case of cancelling units for a net emissions source from an activity under Article 3, paragraphs 3 and 5, key transaction-specific checks are to ensure that:

(a) An appropriate notification identifier is given (check 101 in annex II)

(b) The net source cancellation takes place in a national registry (check 94)

(c) An account identifier is presented for the net source cancellation account (check 97)

(d) The units to be cancelled have the same *applicable commitment period identifier* as the net source cancellation account (check 98)

(e) tCERs and lCERs are not to be cancelled to compensate for the net source (check 99).

75. Where the proposed transaction passes all the relevant ITL checks and any performed by an STL, a positive check message is sent to the registry. This signals that the registry may complete the transaction, by debiting units from the relevant holding account and recording units with the same serial numbers in the net source cancellation account of the registry. Alternatively, the registry may choose to terminate the transaction. The registry sends the ITL a confirmation of the actions it has undertaken in order to allow the ITL and, where relevant, an STL to update their databases.

76. If any of the ITL or STL checks fail, the ITL sends a negative check message to the registry with a response code describing the nature of the failure. Where the registry does not terminate the transaction and instead updates its database, an inconsistency arises between the registry and ITL databases. Such inconsistencies would be identified through the reconciliation process and should be corrected. Until the inconsistencies are resolved, the ITL does not recognize the units as being cancelled. Any subsequent transactions in which these units are involved would fail the ITL checks.

77. The notification identifier included in proposal messages sent by the registry to the ITL ensures that the ITL can associate the cancellation transaction with a particular cancellation requirement. This enables the ITL to monitor the extent to which each requirement is fulfilled. The ITL sends a reminder notification shortly before the deadline for the completion of the full cancellation amount. At the end of the 30 day period, the ITL sends a further notification which either confirms that the requirement is fulfilled or indicates the level by which the requirement has not been fulfilled in the registry.

78. **After the cancellation transaction has taken place**, the cancellation of the units is included in the annual reporting of the Party under Article 7, paragraph 1, and is subject to the annual review under Article 8. The ERT may make use of aggregate information provided by the ITL on unit holdings and transactions in the registry of that Party and information on any unresolved inconsistencies. Where remaining inconsistencies are not resolved through the review processes, an ERT may highlight a question of implementation to the Compliance Committee and propose a correction in the information regarding the cancellation of the units. Where the Compliance Committee approves a correction, it is used within the C&A database to modify the information submitted by the Party.

2. Cancellation for non-compliance in a previous commitment period

79. In accordance with decision 24/CP.7, where the Compliance Committee determines that the emissions of a Party have exceeded its assigned amount for the commitment period, it shall apply a deduction from the assigned amount of the Party for the second commitment period equal to 1.3 times the amount in tonnes of excess emissions. The quantity of units to be cancelled in this manner is recorded in the C&A database and communicated to the ITL.

80.   The procedures for registry systems and post-transaction processes follow those for cancellation for net emissions from activities under Article 3, paragraphs 3 and 4, as shown in figure 3. The ITL sends a notification to the registry, stating the quantity of units for the subsequent commitment period which are to be cancelled within 30 days and providing the notification identifier to be included in proposal messages. The ITL monitors the extent to which the cancellation requirement is fulfilled. At the end of the 30 days, the ITL sends a further notification which either confirms that the requirement is fulfilled or indicates the level by which the requirement has not been fulfilled in the registry.

81.   Any cancellation for non-compliance with an emissions commitment is reflected in the annual reporting of assigned amount information and is subject to review and compliance procedures.

3. Replacement of tCERs and lCERs

82.   Decision 19/CP.9 specifies four situations in which tCERs and lCERs, issued as a result of afforestation and reforestation project activities under the CDM, are subject to replacement requirements:

(a)   tCERs are to be replaced before their expiry date (which is set to the end of the second commitment period)

(b)   lCERs are to be replaced before their expiry date (which is set to the end of the crediting period of the project activity)

(c)   lCERs are to be replaced when a certification report for a project, which has generated lCERs, indicates a reversal in removals since the last certification report for the project

(d)   lCERs are to be replaced where no certification report is received for a project which has generated lCERs within five years of the last certification report.

83.   Such replacement involves transferring units (not necessarily the tCERs and lCERs in question) to a replacement account within the same registry. The quantity of the replaced units (tCERs or lCERs) is to be equal to the quantity of replacement units transferred to the replacement account. Once in this account, the replacement units may no longer be retired. This effectively reduces the assigned amount available to a Party and cancels out the emissions allowed through retiring the replaced units.

84.   The procedures for registry systems in this case follow those shown in parts 2 and 3 of figure 3. The quantity and serial numbers of units to be replaced within a 30 day period is sent in a notification by the ITL to the registry concerned. For cases in which replacement is to be made for reversals in removals and non-certification of the project, the quantity of units to be replaced is communicated by the Executive Board to the ITL, which generates and sends a notification to all the registries concerned.

85.   Key differences in the transaction-specific checks for the replacement of units (compared to the cancellation for activities under Article 3, paragraphs 3 and 4) are to ensure that:

(a)   An appropriate notification identifier is given (checks 120 and 121 in annex II)

(b)   The units to be replaced are tCERs or lCERs (check 108)

(c)   For the replacement of lCERs for a reversal in removals or non-certification of a project, the lCERs to be replaced are from the appropriate project (check 122)

(d)   The units to be replaced have not been replaced previously (check 109)

(e)   The quantity of units to be replaced equals the quantity of replacement units being transferred to the replacement account (check 111)

(f)   No tCERs, and no lCERs from projects other than the project in question are used as replacement units for a reversal in removals or non-certification of a project (check 117).

86.   At the end of the 30 day period, the ITL sends a further notification which either confirms that the replacement requirement is fulfilled or indicates the level by which the requirement has not been fulfilled in the registry. The replacement of units is reflected in the annual reporting of assigned amount information under Article 7, paragraph 1, and is subject to review and compliance procedures.

4. Cancellation for excess issuance of CERs

87.   Where the Executive Board determines that excess CERs, tCERs or lCERs have been issued for a CDM project, it requires the DOE which certified the results of the project to cancel a quantity of units equivalent to the excess issuance within a 30 day period. Such cancellation could be undertaken by the DOE directly from its own holding accounts or by other unit holders which received the excess units that were issued. Nevertheless, the processes implemented by registries and the ITL, as well as the processes implemented after registry transactions, follow those shown in parts 2 and 3 of figure 3.

88.   After being informed of the cancellation requirement by the Executive Board, the ITL generates a notification and an accompanying identifier. It informs the Executive Board of the notification identifier, which communicates it to the DOE so that cancellation transactions intended to contribute to this requirement may indicate the identifier. As in figure 3, the ITL sends the notification to all registries in order that they know that cancellation transactions using this notification identifier are to take place.

89.   The notification identifier enables the ITL to monitor the extent to which the DOE has arranged compensation for the excess issuance. After the 30 day period has lapsed, the ITL provides a report to the Executive Board in order either to confirm that the requirement is fulfilled or to indicate the level by which the requirement has not been fulfilled by the DOE.[17]

5. Restoration of the commitment period reserve

90.   The CPR defines a level for a national registry below which its holdings of units must not fall. Transactions proposed which would, if completed, violate the CPR level for the registry would not pass the appropriate check performed by the ITL (check 91) and are to be terminated (see section IV.C).

91.   Violations of the CPR may, however, arise in the following circumstances:

(a)   The CPR, where calculated as 100 per cent of five times the annual emissions of the Party, may be recalculated with the information from its latest inventory report to be higher than unit holdings in the registry at the time (see table 1)

(b)   The expiry of tCERs or lCERs means that these units can no longer be counted towards the compliance of the Party and therefore no longer count in the level of unit holdings compared against the CPR

(c)   The transfer of units to cancellation or replacement accounts means that these units can no longer be counted towards the compliance of the Party and therefore no longer count in the level of unit holdings compared against the CPR.[18]

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[17] Cases in which a DOE does not fulfil its excess issuance cancellation requirements would be followed up by the Executive Board. Such cases are not reflected in the reporting, review and compliance procedures.

[18] Quantities of units which are to be cancelled or replaced, as notified by the ITL, but which have not been cancelled or replace by the registry concerned, are not counted in unit holdings for the purposes of the CPR after the 30 day period is elapsed.

92.   In such circumstances, any proposals to transfer units to other registries would fail the ITL check relating to the CPR (check 91). The Party is required under decision 18/CP.7 to bring the unit holdings in its registry to the required level within a period of 30 days. In order to facilitate this process, the ITL generates a notification and sends it to the registry concerned in order to inform it of the quantity of units it needs to acquire (or issue) and the date by which this should take place.

93.   As acquisitions by the registry would be initiated by transferring registries and may not be linked to a specific effort by the acquiring registry to restore its CPR, the proposal messages do not need to include the notification identifier. The monitoring by the ITL occurs on the basis of whether the CPR of the registry is restored. At the end of the 30 day period, the ITL sends a further notification which either confirms that the CPR is restored or indicates the level by which the CPR remains violated.

94.   Any continuing violation of the CPR by the Party would be reflected in the annual reporting and review of assigned amount information and would be highlighted by the ERT in the form of a question of implementation forwarded to the Compliance Committee.

6. Expiry date change for tCERs and lCERs

95.   Expiry dates of units need to be changed in the following two situations:

(a)   tCER expiry dates need to be changed when the end-date of the second commitment period is defined as a date other than that used, for technical reasons, during issuance

(b)   lCER expiry dates need to be changed when the crediting period of a CDM afforestation or reforestation project activity is renewed.

96.   The procedures for registry systems follow those shown in part 2 of figure 3. The ITL sends a notification[19] to the registry to inform it of the new expiry date and the tCERs or lCERs for which the expiry dates are to be changed within a 30 day period. The registry may then initiate expiry date change transactions for these units. Transaction-specific checks are defined for the ITL to ensure that the new dates contained in the transaction proposal messages are correct (see checks 139 and 140 in annex II). At the end of the 30 days, the ITL sends a further notification which either confirms that the expiry dates have been changed or indicates the tCERs or lCERs for which the change is still to be made.

97.   Such transactions are not reflected in the information reported under Article 7, paragraph 1.

7. Carry-over to the next commitment period

98.   An Annex B Party may carry over units to the next commitment period where it holds a surplus after retiring sufficient units to be in compliance with its emissions commitment under Article 3, paragraph 1. Any quantities of units available to a Party for carry-over are confirmed through the reporting, review and compliance procedures. They are recorded in the C&A database, from where they are communicated to the ITL, and in the final C&A report for the Party (see table 1 and section III.A).

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[19] This notification has not been defined in version 1.0 (draft #7) of the technical specifications of the data exchange standards. The ITL could use a general message function for this task or a specific notification could be defined for this purpose in a subsequent version of the specifications.

99.   In accordance with decision 19CP.7, the following units may be carried over:

(a)   AAUs which have not been retired, cancelled or used in replacement

(b)   ERUs which were converted from AAUs and which have not been retired, cancelled or used in replacement; up to 2.5 per cent of the assigned amount of the Party pursuant to Article 3, paragraphs 7 and 8

(c)   CERs which have not been retired, cancelled or used in replacement; up to 2.5 per cent of the assigned amount of the Party pursuant to Article 3, paragraphs 7 and 8.

100.   Where a registry holds such units, the ITL generates a carry-over notification for each unit type and sends it to the registry concerned. Several notifications may therefore be received by the registry, each stating the quantity of a single unit type which may be carried over, taking account of the limits on carry-over which apply to each unit type. Once the notifications have been received,[20] the procedures for registry systems and the post-transaction processes are similar to those shown in parts 2 and 3 of figure 3.

101.   Key differences in the transaction-specific checks for carry-over (compared to the cancellation for activities under Article 3, paragraphs 3 and 4) are to ensure that:

(a)   An appropriate notification identifier is given (check 136 in annex II)

(b)   The type of unit to be carried over matches that stated in the notification and the quantity of units does not exceed the quantity stated for that unit type[21] (checks 137 and 132)

(c)   The units are to be carried over only to the next commitment period, as indicated by the new *applicable commitment period identifier* (check 131)

(d)   The units are to be carried over in a holding account (check 130)

(e)   RMUs, ERUs (converted from RMUs), tCERs and lCERs are not to be carried over (checks 133, 134 and 135).

102.   At the end of a 30 day period, the ITL sends further notifications which either confirm that the carry-over of available units has been completed by the registry or indicate the remaining units which are still available for such purposes. The carry-over of units is reflected in the annual reporting of assigned amount information and is subject to review and compliance procedures.

8. Mandatory cancellation

103.   In accordance with decision 19/CP.7, units from the first commitment period which remain in holding accounts of a national registry, after eligible units have been carried over to the next commitment period, are to be transferred to the mandatory cancellation account within the registry.

104.   The procedures for registry systems and post-transaction processes follow those in parts 2 and 3 of figure 3. The ITL sends a notification[22] to the registry to inform it of the quantities of units, by unit type, which are to be cancelled within a 30 day period. The monitoring by the ITL takes place on the basis of whether units for the first commitment period remain in holding accounts. At the end of the 30

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[20] It is not possible for the Party to carry over units prior to the completion of the review and compliance procedures and the receipt by the national registry of the carry-over notification.

[21] The quantities stated in the notifications for CERs and ERUs (converted from AAUs) already take account of the 2.5 per cent limit on the carry-over of such units.

[22] This notification has not been defined in version 1.0 (draft #7) of the technical specifications of the data exchange standards. The ITL could use a general message function for this task or a specific notification could be defined for this purpose in a subsequent version of the specifications.

days, the ITL sends a further notification which either confirms that the cancellation has been completed or indicates the quantities of units which remain to be cancelled. Such cancellation is included in the annual reporting of assigned amount information and is subject to review and compliance procedures.

C. External transfers to another registry

105.   The external transfer of units from an account in one registry to an account in another registry differs considerably from the transaction scenarios considered above. In this case two registries interact with the ITL in order to carry out transactions, and the quantity of units in each transaction is determined by negotiations between unit holders. These processes are shown in figure 4.

106.   For a unit holder to transfer units to another registry in line with the agreement reached, the unit holder requests the national registry to initiate **an external transfer transaction** by generating a proposal message identifying the transaction type (external transfer), unit type, the quantity and serial numbers of units to be transferred, the transferring account number, the acquiring account number, and a transaction status of *proposed*. After any internal tests on the proposal are completed by the registry, it sends the message to the ITL in order that the ITL may undertake its technical and policy-related checks.

107.   In the case of external transfers, key transaction-specific checks concern the following:
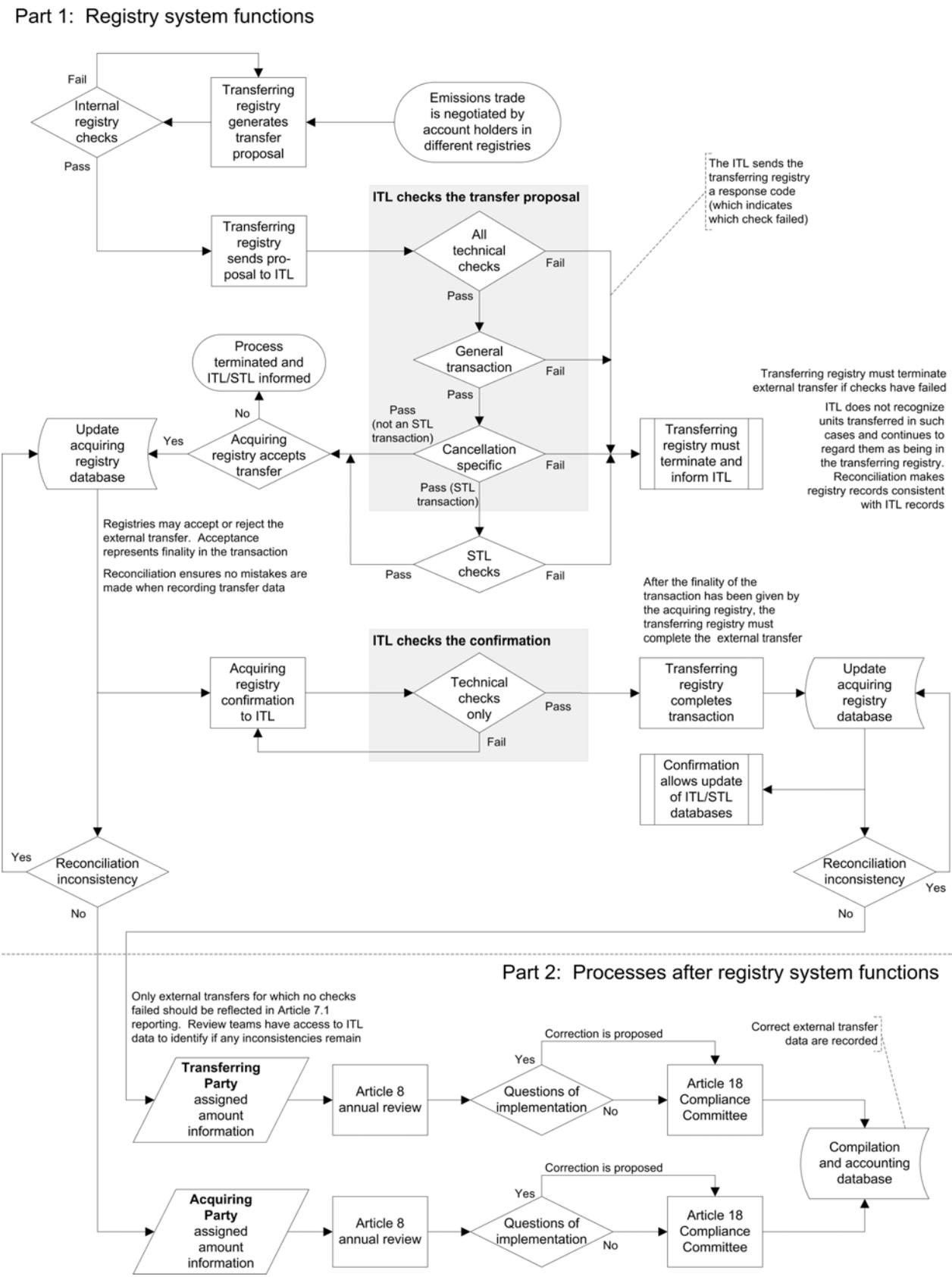
   (a)   The Party of the transferring registry must meet all six eligibility criteria for participation in emissions trading, except if the unit is an ERU with a track 2 identifier which the registry converted and which is being transferred from the registry for the first time, in which case the Party must meet only the three criteria specified for track 2 JI projects in decision 16/CP.7 (checks 88 and 89)

   (b)   The Party of the acquiring registry must meet all six eligibility criteria for participation in emissions trading (check 90)

   (c)   The external transfer must not cause a violation of the CPR of the transferring Party, unless the same exception applies as shown in paragraph 107 (a) above.

108.   Where the proposed transaction passes all relevant ITL and STL checks, the ITL forwards the transaction proposal directly to the acquiring registry, with a positive check message to indicate that all checks were passed. The acquiring registry may accept or reject the transfer proposal. If it accepts the transfer, it updates its database by crediting the newly acquired units to the appropriate holding account.

109.   At this point, **the transaction is considered final**, as the data exchange standards require the transferring registry to complete the transaction and do not allow the option of terminating it. Although the processing of the transaction is not yet complete, the definition of this "point of no return" in the external transfer transaction clarifies the responsibilities of each registry and avoids cases in which one registry completes a transaction and the other terminates it.

110.   The acquiring registry sends a confirmation of its actions, via the ITL, to the transferring registry. Such messages are subject only to technical checks by the ITL at this stage (to ensure that it may be read and processed) as the transfer proposal requires no further evaluation. In accordance with the data exchange standards, the transferring registry must complete its part of the transaction by debiting the transferred units from its database and sending a confirmation of its actions to the ITL. This allows the ITL and, where relevant, an STL to update their databases to reflect the transfer of units. At this point, the processing of the transaction is complete.

Figure 4. External transfers to another registry

Part 1: Registry system functions

ITL checks the transfer proposal

The ITL sends the transferring registry a response code (which indicates which check failed)

Transferring registry must terminate external transfer if checks have failed

ITL does not recognize units transferred in such cases and continues to regard them as being in the transferring registry. Reconciliation makes registry records consistent with ITL records

Registries may accept or reject the external transfer. Acceptance represents finality in the transaction

Reconciliation ensures no mistakes are made when recording transfer data

ITL checks the confirmation

After the finality of the transaction has been given by the acquiring registry, the transferring registry must complete the external transfer

Confirmation allows update of ITL/STL databases

Part 2: Processes after registry system functions

Only external transfers for which no checks failed should be reflected in Article 7.1 reporting. Review teams have access to ITL data to identify if any inconsistencies remain

Correct external transfer data are recorded

111.   In the event that any of the ITL or STL checks on the transfer proposal fail, the ITL sends a negative check message to the transferring registry with a response code describing the nature of the failure. In this case, the registry is required to terminate the transaction. Where the registry does not terminate and instead updates its database without the ITL validation, it causes inconsistencies between the records held in the registry and ITL databases.

112.   These inconsistencies, as well as any generated between the ITL and acquiring registry, would be identified through the reconciliation process and should be corrected. Until the inconsistencies are resolved in relation to the units under the transaction, the ITL does not recognize the units as having been transferred. Any subsequent transactions in which these units are involved would fail the ITL checks.

113.   **After the transaction has taken place**, the results of the external transfer are included in the annual reporting of both Parties under Article 7, paragraph 1, for the calendar year, and are subject to the annual review under Article 8. ERTs would have available to them aggregate information from the ITL on unit holdings and transactions in the registry of each Party for the calendar year, as well as information on any inconsistencies. Where the ERT is not able to resolve inconsistencies, it may identify a question of implementation to the Compliance Committee and propose a correction in the information regarding the external transfer. Where the Compliance Committee approves a correction, it is used within the C&A database to modify the information submitted by the Party.

Annex I

Technical checks to be performed by the international transaction log

List of abbreviations

C&A database	Compilation and accounting database	DES	Data exchange standards between registry systems
CDM	Clean development mechanism	ID	Identifier
Code	Response code (sent to a registry if a check fails)	JI	Joint implementation
CP	Commitment period	SOAP	Simple object access protocol
CPR	Commitment period reserve	WSDL	Web service description

1. Version and authentication checks

No.	Process type	Check name	Check description	COP decision	Code	Additional notes
1		Certificate	Certificate must be recognized	24/CP.8, annex, paragraph 20 (b)	None	Registries use electronic certificates to identify and authenticate themselves with the ITL; process ceases if check fails (no response code is transmitted)
2		SOAP identifier	Initiating registry must be consistent with sender of SOAP message	24/CP.8, annex, paragraph 20 (b)	None	The registry listed in the message as initiating the transaction must be the same registry as that sending the message; process ceases if check fails (no response code is transmitted)
3		WSDL check	Message must conform to WSDL	24/CP.8, annex, paragraph 68	None	The web service description language (WSDL) defines the format and name of the data elements in the message; process ceases if check fails, as message cannot be read (no response code is transmitted)
4		Major version	Major version number in transaction message must match current major version number for data exchange standards technical specifications	24/CP.8, annex, paragraph 9	1031	Changes in major version numbers denote major changes to the DES requiring registry reprogramming; these are not backwards compatible with the earlier major DES versions
5		Minor version	Minor version number in transaction message should match current minor version number for data exchange standards technical specifications	24/CP.8, annex, paragraph 9	1032	Changes in minor version numbers denote less substantial changes to the DES that may be taken into account by a registry without complex reprogramming; minor DES versions are backwards compatible with earlier minor versions, such that a registry and the ITL with different minor versions can still communicate

2. Message viability checks

No.	Process type	Check name	Check description	COP decision	Code	Additional notes
6		Message age	Message must be processed within 24 hours of submission	24/CP.8, annex, paragraph 12	1301	Transactions for which messages are held in the ITL queue for more than 24 hours will be cancelled by the ITL

3. Registry status checks

No.	Process type	Check name	Check description	COP decision	Code	Additional notes
7		Initiating registry	Initiating registry must be listed in registry table	24/CP.8, annex, paragraph 20 (b)	1501	Registry table refers to a table in the ITL database
8		Initiating registry transactions status	Initiating registry status must allow transactions to be proposed	24/CP.8, annex, paragraph 19	1503	Registry may be offline for transaction purposes
9		Acquiring registry transactions status	Acquiring registry status must allow transactions to be accepted	24/CP.8, annex, paragraph 19	1504	Registry can be offline for transaction purposes
10		Registry reconciliation status	Registry status must allow reconciliation actions to be conducted	24/CP.8, annex, paragraph 19	1510	Reconciliation may be possible while other registry functions may be offline

4. Data integrity checks

No.	Process type	Check name	Check description	COP decision	Code	Additional notes
11		Transaction mask	Transaction ID must comprise a registry code followed by numeric values	19/CP.7, annex, paragraph 41 (a) 24/CP.8, annex, paragraph 17	2001	Checks the format of the identifier given to the transaction by the registry
12		Transaction type code	Transaction type must be valid	24/CP.8, annex, paragraphs 6, 17	2002	Checks that the transaction type is one recognized by the DES; other checks ensure that other message attributes meet other transaction requirements
13		Supplementary transaction type code	Supplementary transaction type must be valid		2003	Supplementary trading schemes (e.g. EU emissions trading) identify some transactions using supplementary transaction type codes; if given, such codes must be recognized by the DES
14		Transaction status code	Transaction status code must be valid	24/CP.8, annex, paragraphs 6, 7	2004	These codes show the position of the message within a defined transaction sequence; the transaction status given must be recognized by the DES
15		Transaction status date/time	Transaction status date/time must be before the current date/time and no older than two weeks	24/CP.8, annex, paragraph 7(a)	2005	A date/time in the future or too far in the past are considered invalid; this check restricts the potential to process the wrong date and time of a message
16		Account type code	Account type code must be valid	24/CP.8, annex, paragraph 16	2006	Checks that the account type code is one recognized by the DES
17		Initiating account identifier	Initiating account identifier must be greater than zero and must not exceed 999,999,999,999,999	24/CP.8, annex, paragraph 16	2007	Checks that an initiating account identifier is present, where required by the transaction; as the ITL does not record account identifiers, it is not able to check whether the initiating registry has entered the intended account
18		Acquiring account identifier	Acquiring account identifier must be greater than zero and must not exceed 999,999,999,999,999	24/CP.8, annex, paragraph 16	2008	Checks that an acquiring account identifier is present, where required by the transaction; as the ITL does not record account identifiers, it is not able to check whether the initiating registry has entered the intended account

No.	Process type	Check name	Check description	COP decision	Code	Additional notes
19		Notification type code	Notification type code must be valid	17/CP.7, annex, paragraph 22 19/CP.9, annex, paragraphs 49, 50, 55	2009	Notifications are sent by the ITL to registries to provide information on required actions, particularly concerning replacement, cancellation and carry-over; transactions taken in response to notifications typically require reference to be made to the notification identifier; such reference must be recognized by the DES; other checks ensure that the notification ID is already known by the ITL
20		Originating registry	The originating registry of all unit blocks must be valid	24/CP.8, annex, paragraph 14	2010	Originating registry codes are part of the serial number of each unit and indicate the party for which the unit was issued; they remain unchanged, even with transfer to another registry
21		Unit type code	Unit type code must be valid	24/CP.8, annex, paragraph 14	2011	Unit type codes are part of the serial number of each unit and indicate whether the unit is an AAU, RMUs, ERU (from an AAU), ERU (from an RMU), CER, tCER or ICER
22		Supplementary unit type code	Supplementary unit type code must be valid		2012	This code gives info on units assigned specific attributes under supplementary trading schemes; the ITL passes this info to STLs; if given, such codes must be recognized by the DES
23		Unit serial block	Unit serial block start and unit serial block end must be present	24/CP.8, annex, paragraphs 7 (d), 14	2013	Serial numbers are packaged in blocks to reduce data volume (in both data storage and data transmission); each block is defined by its start and end serial numbers; all other components of the serial numbers in between the start and end are identical
24		Unit serial range	Unit serial block end must be greater than or equal to the unit serial block start	24/CP.8, annex, paragraphs 7 (d), 14	2014	
25		LULUCF activity code	RMUs, ERUs converted from RMUs, tCERs and ICERs must have a valid LULUCF activity code	24/CP.8, annex, paragraph 14	2015	There are six LULUCF codes: afforestation and reforestation (a combined code), deforestation, forest management, cropland management, grazing land management, and revegetation; these codes conform to the way in which Parties are to report data on LULUCF activities
26		No LULUCF activity code	AAUs, ERUs converted from AAUs, and CERS must not have a LULUCF activity code	24/CP.8, annex, paragraph 14	2016	
27		Project identifier	CERs, tCERs, ICERs and ERUs must have a valid project identifier	24/CP.8, annex, paragraph 14	2017	CDM project identifiers are generated by the CDM Executive Board; JI project identifiers are generated by the Party (under track 1) or the Article 6 Supervisory Committee (under track 2)
28		No project identifier	AAUs or RMUs must not have a project identifier	24/CP.8, annex, paragraph 14	2018	

No.	Process type	Check name	Check description	COP decision	Code	Additional notes
29		ERU track code	ERUs must have a valid track code	19/CP.7, annex, paragraph 29, 24/CP.8, annex, paragraph 14	2019	Track 1 codes indicate that ERUs are generated from JI projects verified through national procedures; track 2 codes indicate that ERUs are generated from JI projects verified through procedures under the Article 6 Supervisory Committee
30		No track code	AAUs, RMUs, CERs, tCERs, lCERs must not have a track code	19/CP.7, annex, paragraph 29, 24/CP.8, annex, paragraph 14	2020	
31		Expiry date	tCERs and lCERs must have an expiry date	19/CP.9, annex, paragraphs 42, 46	2021	The expiry date indicates the date at which tCERs and lCERs must be replaced with other units
32		No expiry date	AAUs, RMUs, ERUs and CERs must not have an expiry date	19/CP.9, annex, paragraphs 42, 46	2022	

5. Message sequence checks

No.	Process type	Check name	Check description	COP decision	Code	Additional notes
33		Transaction ID not unique	Transaction ID for proposed transactions must not already exist in the ITL	24/CP.8, annex, paragraph 17	3001	Transactions, when proposed by a registry in the first message of a transaction sequence, must use an identifier which has never been used
34		Prior record of transaction ID from registry	Transaction ID for ongoing transactions must already exist in the ITL	24/CP.8, annex, paragraphs 6, 7, 17	3002	If the message is not the first in a transaction sequence, it cannot be a transaction proposal; the transaction ID must already be known to the ITL
35		Transaction status out of sequence for prior completed status	Previously completed transactions cannot be completed again	24/CP.8, annex, paragraphs 6, 7	3003	The fact that a transaction has been completed is indicated by a "completed" status for the transaction
36		Transaction status out of sequence for prior rejected status	Previously rejected transactions cannot be completed	24/CP.8, annex, paragraphs 6, 7	3004	The fact that a transaction has been rejected by the acquiring registry is indicated by a "rejected" status for the transaction (only for external transfers)
37		Transaction status out of sequence for prior ITL discrepancy status	Transactions for which an ITL discrepancy has been previously identified cannot be completed	24/CP.8, annex, paragraphs 6, 7	3005	This condition is shown by an "ITL discrepancy" status for the transaction
38		Transaction status out of sequence for prior STL discrepancy status	Transactions for which an STL discrepancy has been previously identified cannot be completed		3006	This condition is shown by an "STL discrepancy" status for the transaction
39		Transaction status out of sequence for prior terminated status	Previously terminated transactions cannot be completed	24/CP.8, annex, paragraphs 6, 7	3007	This condition is shown by a "terminated" status for the transaction; it refers to a transaction terminated by the initiating registry

No.	Process type	Check name	Check description	COP decision	Code	Additional notes
40		Transaction status out of sequence for prior cancelled status	Previously cancelled transactions cannot be completed	24/CP.8, annex, paragraphs 6, 7	3008	This condition is shown by a "cancelled" status for the transaction; it refers to a transaction cancelled by the ITL (e.g. after no response to a message was received after 24 hours)
41		Transaction status out of sequence for prior accepted status	Previously accepted external transactions cannot be terminated	24/CP.8, annex, paragraphs 6, 7	3009	Once the ITL has found no discrepancy and the acquiring Party has accepted the proposed transfer, the transaction can no longer be terminated by the initiating registry
42		Transaction status out of sequence for accepted or rejected status	Transaction status of accepted or rejected is not valid for non-external transactions	24/CP.8, annex, paragraphs 6, 7	3010	The status codes of "accepted" and "rejected" are only applicable to external transfers; they may only be applied by an acquiring registry
43		Transaction status not compatible with initiating registry	Transactions status from initiating registry must indicate status of proposed, completed or terminated	24/CP.8, annex, paragraphs 6, 7	3011	Only the status codes of "proposed", "completed" or "terminated" may be applied by an initiating registry; the others are applied by acquiring registries, the ITL or an STL
44		Transaction status not compatible with acquiring registry	Transactions status from acquiring registry must indicate status of rejected or accepted	24/CP.8, annex, paragraphs 6, 7	3012	Only the status codes of "accepted" or "rejected" may be applied by an acquiring registry; the others are applied by initiating registries, the ITL or an STL
45		Transaction status not compatible with an STL	Transaction status from STL must indicate status of discrepancy or no discrepancy	24/CP.8, annex, paragraphs 6, 7	3501	Only the status codes of "discrepancy" or "no discrepancy" may be applied by an STL; the others are applied by a registry or the ITL
46		Prior record of transaction ID from STL	Transaction ID for ongoing transactions must exist in the ITL	24/CP.8, annex, paragraphs 7 (e), 17	3502	Any messages received from an STL cannot be the first in a transaction sequence; the transaction ID must already be known to the ITL

Annex II

Policy-related checks to be performed by the international transaction log

6. General transaction checks [1]

No.	Process type	Check name	Check description	COP decision	Code	Additional notes
47		Applicable commitment period	Applicable commitment period must correspond to the current or next commitment period (including their true-up periods)		4001	The applicable CP identifier is the component of the serial number that indicates for which CP the unit is valid (as opposed to the original CP identifier which indicates the CP for which the unit was issued); the applicable CP identifier is amended as part of a carry-over transaction; this check minimizes the risk of erroneous applicable CP identifiers. Transactions may only occur with units for the current CP and next CP, after relevant eligibility criteria are met and units are issued (see transaction-specific checks)
48		Prior record of units	Units identified in the transaction must already exist in the ITL	19/CP.7, annex, paragraphs 39, 40	4002	Serial numbers for units involved in transactions (except issuance transactions, to which the general transaction checks do not apply) are checked against records already stored in the ITL; this check builds upon previous checks that ensure that each component of the serial number is provided in a valid format
49		Registry holds units	Units identified in the transaction must be held by initiating registry	19/CP.7, annex, paragraphs 39, 40	4003	A registry cannot initiate a transaction involving units it does not hold
50		Unit block attributes	All attributes of all unit blocks must be consistent with ITL unit block attributes except where attributes are changed by the current transaction	19/CP.7, annex, paragraphs 27, 36	4004	The ITL checks all serial number components to ensure consistency with ITL records; the only differences are where the transaction involves changes to components (e.g. changing the unit type code from AAU to ERU during conversion), for which registries provide the modified unit attributes
51		Single applicable commitment period	All unit blocks in a transaction must be for a single applicable commitment period		4005	This is to avoid technical complexity; actions involving units of multiple CPs must be separated into multiple transactions
52		Acquiring and transferring registry consistency	For all transactions except for external transfers, the initiating and acquiring registries must be the same	19/CP.7, annex, paragraphs 39, 40	4006	All transactions, except for external transfer, take place in a single registry
53		Acquiring and transferring registry for external transactions	For external transfers, the Initiating and acquiring registries must be different	19/CP.7, annex, paragraph 40	4007	External transfers by definition involve two different registries

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[1] These checks apply to all transaction types except issuance.

No.	Process type	Check name	Check description	COP decision	Code	Additional notes
54		Units have ITL inconsistencies	Units identified in the transaction must not have inconsistencies identified through reconciliation with the ITL	24/CP.8, annex, paragraph 26	4008	Inconsistencies between ITL and registry data for particular units, discovered through the reconciliation process, must be resolved before the unit may be transacted
55		Units have STL inconsistencies	Units identified in the transaction must not have inconsistencies identified through reconciliation with an STL		4009	Inconsistencies between STL and registry data for particular units, discovered through the reconciliation process, must be resolved before the unit may be transacted
56		Units are unavailable	Units identified in the transaction must not be involved in another transaction	24/CP.8, annex, paragraph 13	4010	The data exchange standards give priority to completing transactions in the order that they are initiated
57		Units are cancelled	Cancelled units must not be subject to further transactions	19/CP.7, annex, paragraph 35	4011	
58		Units are retired	Retired units must not be subject to further transactions	19/CP.7, annex, paragraph 35	4012	
59		Units are expired	Expired tCERs and lCERs must not be subject to further transactions, except internal transfers to a Type 5 cancellation account	19/CP.9, annex, paragraphs 42, 46, 53	4013	The exception is to allow tCERs and lCERs to be cleaned out of holding accounts after their expiry
60		Units previously used in replacement	Units previously used to replace tCERs or lCERs must not be subject to further transactions	19/CP.9, annex, paragraph 35	4014	Such units would be in replacement accounts; replacement functions similarly to cancellation, in that units used in replacement transactions may not be subsequently transferred out of the replacement account
61		ICER transaction ineligibility	lCERs must not be transferred to a holding or retirement account where the CDM Executive Board has notified a replacement requirement for the associated project	19/CP.9, annex, paragraphs 49, 50	4015	The CDM Executive Board informs the ITL of the total quantity of lCERs from a project which requires replacement; the ITL notifies each registry of the quantity it is required to replace and blocks all lCERs from the project concerned from being transferred to any account other than replacement or cancellation accounts; in the paragraph 49 case, lCERs remaining in holding accounts after sufficient units are replaced are unblocked and are again available for transactions

7. Transaction-specific checks

No.	Process type	Check name	Check description	COP decision	Code	Additional notes
62	Issuance	National registry issuance	AAUs and RMUs must be issued by a national registry	19/CP.7, annex, paragraph 39	5001	The CDM registry cannot issue AAUs or RMUs
63	Issuance	No ERU issuance	ERUs cannot be issued	19/CP.7, annex, paragraph 29	5002	ERUs can only be generated through the conversion of AAUs and RMUs; the DES refer to this transaction as "conversion", rather than "issuance"
64	Issuance	CDM registry issuance	CERs, tCERs and lCERs must be issued by the CDM registry	19/CP.7, annex, paragraph 39	5003	National registries cannot issue CERs, tCERs or lCERs
65	Issuance	Single issuance unit type	A transaction must not issue more than one unit type		5004	This is to avoid technical complexity; issuance of multiple unit types must be separated into multiple transactions

No.	Process type	Check name	Check description	COP decision	Code	Additional notes
66	Issuance	Single issuance commitment period	The original commitment period must be the same for all units issued by the transaction		5005	This is to avoid technical complexity; issuance of units for multiple commitment periods must be separated into multiple transactions
67	Issuance	Consistent applicable commitment period	The applicable commitment period must be the same as the original commitment period for all units issued by the transaction		5006	Prior to any carry-over for the unit, the applicable CP identifier must be the same as the original CP identifier
68	Issuance	Issued serial numbers	Serial numbers for proposed issuance must not already exist in the ITL	17/CP.7, annex, appendix D, paragraph 7 19/CP.7, annex, paragraphs 24, 27, 29	5007	Serial numbers for units to be issued must not have been used previously
69	Issuance	AAU issuance quantity	The quantity of AAUs issued must not exceed allowed quantity for the commitment period	19/CP.7, annex, paragraph 23	5008	The allowed quantity of AAU issuance is set by assigned amount pursuant to Article 3.7 and 3.8, as recorded in the C&A database; AAUs may be issued in multiple transactions over time but must not exceed the allowed quantity
70	Issuance	RMU issuance quantity	The quantity of RMUs issued must not exceed allowed quantity for each LULUCF activity type and commitment period	19/CP.7, annex, paragraphs 25, 26, 28	5009	The allowed quantities of RMU issuance, by LULUCF activity, are set by rules under Article 3.3 and 3.4, taking account of the limits established by decision 11/CP.7; the ITL requires that the allowed quantities, by LULUCF activity and as confirmed by the Article 8 and compliance processes, be stored in the C&A database so that the ITL can access it from there; the common reporting format for reporting these activities separates data by LULUCF activity; RMUs may be issued in multiple transactions over time but must not exceed the allowed quantity for each LULUCF activity type
71	Issuance	CDM issuance unit type	The type of units to be issued for each CDM project activity must be consistent with the project activity	19/CP.9, annex, paragraph 38	5010	ITL requires information from the CDM Executive Board on whether the project activity is a LULUCF activity, in which case a tCER or lCER must be issued
72	Issuance	Consistency of unit type issued for a LULUCF CDM project	Choice of unit type must be consistent with previous issuance of tCERs or lCERs for the project	19/CP.9, annex, paragraph 39	5011	A unit type may be selected (between tCERs or lCERs) for the first issuance from a project activity; this unit type must be maintained thereafter
73	Issuance	CDM issuance quantity	CER, tCER or lCER issuance for each CDM project must not exceed quantity specified by the CDM Executive Board	17/CP.7, annex, appendix D, paragraph 6	5012	The ITL needs to receive copies of the issuance instructions from the CDM Executive Board stating the allowed level of issuance; units for a single project and crediting period may be issued in multiple transactions over time but must not exceed the allowed quantities of CERs or tCERs/lCERs

No.	Process type	Check name	Check description	COP decision	Code	Additional notes
74	Issuance	CDM LULUCF activity code	The LULUCF activity code of tCERs or ICERs proposed for issuance must be consistent with project activity	24/CP.8, annex, paragraph 14	5013	This information is included in the serial numbers of tCERs and ICERs; the ITL requires information on the project activity from the CDM Executive Board prior to the first issuance of units for the project, in order to check whether a LULUCF code is necessary
75	Issuance	CDM project ID	A valid CDM project ID must be present for the issuance of all CERs, tCERs and ICERs	24/CP.8, annex, paragraph 14	5014	This info is included in the serial numbers of all CERs, tCERs and ICERs; the ITL requires the project identifier from the CDM Executive Board prior to the first issuance of units for the project
76	Issuance	tCER expiry date	Expiry date for tCERs must be consistent with the end date of the commitment period subsequent to the original commitment period of the tCER	19/CP.9, annex, paragraph 42	5015	This info is included in the serial numbers of all tCERs; as this date is not yet known, the issuing registry and the ITL initially assumes a common date (31 December 2017) for the issuance process; if necessary, this expiry date may be changed later using the expiry date change transaction
77	Issuance	ICER expiry date	Expiry date for ICERs must be consistent with the end date of the crediting period for the project specified by the CDM Executive Board	19/CP.9, annex, paragraph 46	5016	This information is included in the serial numbers of all ICERs; the ITL requires this information from the CDM Executive Board prior to the first issuance of units for the project and must subsequently be informed of any renewals in crediting periods; if necessary, this expiry date may be changed later using the expiry date change transaction
78	Conversion	National registry conversion	The initiating registry converting AAUs or RMUs must be a national registry	19/CP.7, annex, paragraph 29	5051	The CDM registry cannot convert units to ERUs
79	Conversion	Holding account conversion	The initiating account for a conversion transaction must be a holding account		5052	Conversion occurs within a holding account; the transfer of ERUs to other accounts occurs after unit conversion, as a separate transaction; units held in cancellation, retirement, replacement or the pending account of the CDM registry cannot be converted to ERUs
80	Conversion	Conversion eligibility (track 1)	If the unit is a track 1 ERU, the Party of the Initiating registry must be determined to meet eligibility criteria 1 through 6	16/CP.7, annex, paragraphs 21-23	5053	All eligibility criteria must be met by the Annex B Party before its registry may convert units to ERUs with a track 1 code in their serial numbers; the ITL draws upon up-to-date records in the C&A database concerning each Party's fulfilment of the criteria
81	Conversion	Conversion eligibility (track 2)	If the unit is a track 2 ERU, the Party of the initiating registry must be determined to meet eligibility criteria 1, 2 and 4	16/CP.7, annex, paragraphs 21, 24	5054	A smaller set of eligibility criteria must be met by the Annex B Party before its registry may convert units to ERUs with a track 2 code in their serial numbers; the ITL draws upon up-to-date records in the C&A database concerning each Party's fulfilment of the criteria
82	Conversion	Conversion unit type	Units for conversion must be AAUs or RMUs	19/CP.7, annex, paragraph 29	5056	CERs, tCERs and ICERs cannot be converted to ERUs
83	Conversion	Single conversion unit type	A transaction must not convert more than one unit type		5057	This is to avoid technical complexity; conversion from multiple unit types must be done through multiple transactions

No.	Process type	Check name	Check description	COP decision	Code	Additional notes
84	Conversion	Conversion by issuing registry	Units for conversion must have been issued by initiating registry	19/CP.7, annex, paragraph 29	5058	A Party cannot convert AAUs or RMUs issued by other Parties and since acquired via an external transaction
85	Conversion	Project ID	A valid Project ID must be present for the conversion of all ERUs	19/CP.7, annex, paragraph 29	5059	This information is included in the serial numbers of all ERUs; the ITL requires the project identifier from the Party (track 1) or the Article 6 Supervisory Committee (track 2) before first conversion for the project
86	Conversion	JI conversion unit type	The type of units to be converted to ERUs for each JI project must be consistent with the project activity	16/CP.7, COP/MOP draft decision, paragraph 4 11/CP.7, annex, paragraph 11 19/CP.7, annex, paragraph 15	5060	AAUs must be converted for emission-reducing JI activities; RMUs must be converted for LULUCF JI activities, on the basis that (a) LULUCF JI projects must conform to definitions, accounting, modalities and guidelines under Article 3.3 and 3.4 and (b) ERUs converted from RMUs cannot be carried over; the ITL requires information on the project activity from the Party (track 1) or the Article 6 Supervisory Committee (track 2) prior to the first conversion of units for the project
87	Conversion	Track 2 ERU conversion quantity	Track 2 ERU conversion for each Track 2 JI project must not exceed the quantity specified by the Article 6 Supervisory Committee	16/CP.7, annex, paragraphs 24, 39	5061	The ITL needs to receive copies of the issuance instructions from the Article 6 Supervisory Committee (track 2) stating the allowed level of issuance; units for a single project and crediting period may be converted in multiple transactions but must not exceed the allowed quantity
88	External	General transferring registry eligibility for external transfers	The Party of an initiating national registry must be determined to meet eligibility criteria 1 through 6, except for the first external transfer of a track 2 ERU which the registry has converted	18/CP.7, annex, paragraph 2 16/CP.7, paragraph 24	5101	All eligibility criteria must be met by the Annex B Party before its registry may conduct external transfers to other registries; the ITL draws upon up-to-date records in the C&A database concerning each Party's fulfilment of the criteria; this check is not applied where the external transfer is a first external transfer of track 2 ERUs which the Registry has converted, as this initial distribution of track 2 ERUs to project participants in other Parties is allowed under special eligibility conditions in the JI track 2 case (this does not allow subsequent emission trading of track 2 ERUs); this exception does not itself allow such a transfer to proceed, but allows such a transfer to progress without check failure to check 89, which tests if the JI track 2 eligibility criteria are met; this check does not apply to external transfers initiated by the CDM registry, as this would be distribution of CERs, tCERs or lCERs to project participants under Article 12 (rather than emissions trading under Article 17)

No.	Process type	Check name	Check description	COP decision	Code	Additional notes
89	External	ERU track 2 transferring registry eligibility for external transfers	If the transaction is the first external transfer of a track 2 ERU which the registry has converted, the Party of the initiating national registry must be determined to meet eligibility criteria 1, 2 and 4	16/CP.7, annex, paragraph 24	5102	This check builds upon the exception provided by check 88; the initial distribution of track 2 ERUs to project participants in other Parties is allowed as long as the smaller set of eligibility conditions in the JI track 2 case are met by the Annex B Party; the ITL draws upon up-to-date records in the C&A database concerning each Party's fulfilment of the criteria
90	External	Acquiring registry eligibility for external transfers	The Party of an acquiring national registry must be determined to meet eligibility criteria 1 through 6, except for transfers initiated by the CDM registry	16/CP.7, annex, paragraph 21 17/CP.7, annex, paragraph 66 18/CP.7, annex, paragraph 2	5103	As with initiating registries, all eligibility criteria must be met by an Annex B Party before its registry may receive external transfers from other registries (this applies also to track 2 ERUs); the ITL draws upon up-to-date records in the C&A database concerning each Party's fulfilment of the criteria; this check is not applied where the transfer comes from the CDM registry, as this would be the distribution of CERs, tCERs or lCERs to project participants under Article 12 (rather than emissions trading under Article 17)
91	External	Commitment period reserve	The total quantity of all units held in a national registry, which may be used for compliance for the applicable commitment period of a transaction, must not fall below the CPR level for the party for that commitment period, except where the transaction is a first transfer of track 2 ERUs converted by the registry; this total quantity is the total of all units in holding and retirement accounts, plus first transfers of track 2 ERUs converted by the registry (associated with previous or the current transaction), less expired units remaining in holding and retirement accounts, and less required cancellations and replacements which have not been carried out 30 days after the relevant notification was sent by the ITL	18/CP.7, annex, paragraphs 8-10	5104	External transfers must not cause the unit holdings in a registry to fall below the CPR level of the Annex B Party; the first transfers of track 2 ERUs are not subject to this CPR level check - CPR level: The CPR level, as reported by each Party and confirmed under the review and compliance procedures, is recorded in the C&A database; this CPR level is further reduced by any first external transfers of track 2 ERUs which the Registry has converted (since the Article 6 Supervisory Committee ensures that generation of such ERUs is associated with reductions in emissions, such that their transfer does not affect the compliance situation of the Party); this reduction is shown in the check description column by adding this amount to the holdings side of the equation) - Holdings level: Only units holdings which have not expired or been cancelled or replaced may count towards holdings for CPR purposes; adjustments ensure that only these holdings are taken into account
92	External	External transfers to CDM registry	The CDM registry can only receive external transfers to cancellation accounts for compensating excess issuance of CERs, tCERs and lCERs	17/CP.7, annex, paragraph 22 17/CP.7, annex, appendix D, paragraph 3	5105	The CDM registry cannot acquire units, except where an operational entity has been required by the CDM Executive Board to cancel units to compensate excess CER, tCER or lCER issuance

No.	Process type	Check name	Check description	COP decision	Code	Additional notes
93	External	Suspension from making external transfers	The Party of an initiating national registry must not have been suspended from making external transfers as a result of not meeting its emissions target for the previous commitment period	24/CP.7, annex, section XV, paragraph 5 (c)	5106	This refers to one of the consequences for an Annex B Party being found not to be in compliance with its Article 3.1 emissions target
94	Cancellation	National registry cancellation	Cancellation to net source, non-compliance and voluntary accounts must take place in a national registry	19/CP.7, annex, paragraphs 21, 32, 33, 37	5151	These cancellation accounts do not exist in the CDM registry
95	Cancellation	No excess issuance cancellation	Cancellation to excess issuance cancellation account must take place in the CDM registry	17/CP.7, annex, appendix D, paragraph 3	5152	This cancellation account does not exist in national registries
96	Cancellation	Cancellation accounts	The acquiring account for a cancellation transaction must be a cancellation account	17/CP.7, annex, appendix D, paragraph 3 19/CP.7, annex, paragraphs 21, 32, 33, 37 19/CP.9, annex, appendix D, paragraph 3	5153	Holding, retirement, replacement and pending accounts cannot acquire units in cancellation transactions
97	Cancellation	Cancellation account identifier	Account identifiers must be provided for acquiring accounts in cancellation transactions	24/CP.8, annex, paragraph 7	5154	The ITL normally checks only the account type; in the case of cancellation, the ITL checks that the account identifier matches an account specified for this purpose by the registry
98	Cancellation	Cancellation account commitment period	The unit blocks cancelled must have the same applicable commitment period as the cancellation account	19/CP.7, annex, paragraph 21	5155	Required to enable the ITL to monitor cancellations against requirements for the commitment period
99	Cancellation	tCER and lCER cancellation to net source and non-compliance cancellation accounts	tCERs and lCERs cannot be transferred to net source cancellation accounts, non-compliance cancellation accounts	19/CP.9, annex, paragraph 52	5156	
100	Cancellation	Notification ID for tCER and lCER cancellation to excess issuance cancellation account	tCERs and lCERs must only be transferred to excess issuance cancellation account in the CDM registry in the case that excess tCER and lCER issuance is being compensated pursuant to an excess issuance notification	19/CP.9, annex, paragraph 52	5157	tCERs may be transferred to excess issuance cancellation accounts to compensate excess tCERs issuance; lCERs may be transferred to excess issuance cancellation accounts to compensate excess lCERs issuance; the ITL needs to be informed of such compensation requirements, as set by the CDM Executive Board
101	Cancellation	Notification ID for net source cancellations	Units may only be transferred to a net source cancellation account if a notification has been received from the ITL and this ID is reported in the transaction		5158	Required to enable the ITL to monitor cancellation against notifications
102	Cancellation	Notification ID for non-compliance cancellations	Units may only be transferred to a non-compliance cancellation account if a notification has been received from the ITL and this ID is reported in the transaction		5159	Required to enable the ITL to monitor cancellation against notifications

No.	Process type	Check name	Check description	COP decision	Code	Additional notes
103	Replacement	National registry replacement	The initiating registry replacing units must be a national registry	19/CP.9, annex, paragraphs 44, 48, 49, 50 and appendix D paragraph 3	5201	CDM registry cannot replace units; tCERs and lCERs in the CDM registry which require replacement are instead transferred to a mandatory cancellation account within the CDM registry
104	Replacement	tCER replacement account	The acquiring account for a replacement transaction involving tCERs must be a tCER replacement account	19/CP.9, annex, paragraph 43	5202	
105	Replacement	ICER replacement account	The acquiring account for a replacement transaction involving lCERs must be a lCER replacement account	19/CP.9, annex, paragraph 47	5203	
106	Replacement	Replacement account identifier	Account identifiers must be provided for acquiring accounts in replacement transactions	24/CP.8, annex, paragraph 7	5204	The ITL normally checks only the account type; in the replacement case, the ITL checks that the account identifier matches an account specified for this purpose by the registry
107	Replacement	Replacement account commitment period	The unit blocks used for replacement must have the same applicable commitment period as the replacement account	19/CP.7, annex, paragraph 21	5205	Required to enable the ITL to monitor replacements against requirements for the commitment period
108	Replacement	Unit type to be replaced	Units to be replaced must be tCERs or lCERs	19/CP.9, annex, paragraphs 44, 48, 49, 50	5206	AAUs, RMUs, ERUs and CERs cannot be replaced; these can only be used to replace tCERs and lCERs
109	Replacement	Multiple replacement	A unit may be replaced only once		5207	As part of the replacement transaction, the ITL flags its records of tCERs and lCERs as having been replaced; only one replacement is needed to compensate the extra emission made possible by retiring a tCER or lCER; units which have already been replaced are not replaced again upon expiry
110	Replacement	Single replacement registry	The registry holding the units to be replaced and the replacing units must be the same	19/CP.9, annex, paragraphs 44, 48, 49, 50	5208	A registry cannot replace units that it does not hold
111	Replacement	Quantity of replacement units	The quantity of units replaced must equal the quantity of replacing units	19/CP.9, annex, paragraphs 44, 48, 49, 50	5209	Replacement is a one-to-one relationship
112	Replacement	One-to-many replacement blocks	A transaction cannot contain many-to-many relationships between replaced and replacing blocks	19/CP.9, annex, paragraph 54	5210	This is to avoid technical complexity; replacement transactions must be formulated to replace single unit blocks with multiple unit blocks, or to replace multiple unit blocs with single unit blocks; replacement transactions may not be formulated to replace multiple unit blocks with multiple unit blocks as the block-to-block relationships within the ITL database cannot be established
113	Replacement	Location of replaced tCERs	tCER to be replaced must be held in a retirement account or a tCER replacement account	19/CP.9, annex, paragraph 44	5211	tCERs in holding or cancellation accounts do not need to be replaced upon expiry (as they have not resulted in higher emissions being allowed)

No.	Process type	Check name	Check description	COP decision	Code	Additional notes
114	Replacement	Location of replaced ICERs	ICERs to be replaced must not be held in cancellation accounts	19/CP.9, annex, paragraphs 48, 49, 50	5212	Requirements to replace ICERs need to be fulfilled through replacing units which have already been retired or replaced, or which may be retired or replaced in the future
115	Replacement	tCER replacement units (upon expiry)	tCER replacement accounts (for unit expiry) cannot acquire ICERs	19/CP.9, annex, paragraph 44	5214	
116	Replacement	ICER replacement units (upon expiry)	ICER replacement accounts (for unit expiry) cannot acquire tCERs or ICERs	19/CP.9, annex, paragraph 48	5213	
117	Replacement	ICER replacement units (upon reversal of storage or lack of certification report)	ICER replacement accounts (for reversal in storage or lack of certification report) cannot acquire tCERs and cannot acquire ICERs with a project identifier other than that specified in the replacement notification	19/CP.9, annex, paragraphs 49, 50	5215	
118	Replacement	Replacement notification upon tCER expiry	If provided, the replacement notification ID must be valid and must be for replacement upon tCER expiry	19/CP.9, annex, paragraphs 54, 55	5216	Replacement may occur before the ITL sends a notification to the registry indicating that 30 days remain before expiry; however, if a notification ID is submitted, it should be of the right type
119	Replacement	Replacement notification upon ICER expiry	If provided, the replacement notification ID must be valid and must be for replacement upon ICER expiry	19/CP.9, annex, paragraphs 54, 55	5217	Replacement may occur before the ITL sends a notification to the registry indicating that 30 days remain before expiry; however, if a notification ID is submitted, it should be of the right type
120	Replacement	Replacement notification for reversal in storage	A valid replacement notification ID must be provided for replacement upon reversal in storage	19/CP.9, annex, paragraphs 49, 54	5218	Required to enable the ITL to monitor replacement against notifications
121	Replacement	Replacement notification for lack of certification report	A valid replacement notification ID must be provided for replacement upon a lack of certification report	19/CP.9, annex, paragraphs 50, 54	5219	Required to enable the ITL to monitor replacement against notifications
122	Replacement	Project ID for ICERs replacement (upon reversal of storage or lack of certification report)	For ICER replacement transactions upon reversal of storage or lack of a certification report, the project ID for the ICERs to be replaced must be consistent with the project ID contained in the replacement notification	19/CP.9, annex, paragraphs 49, 50, 54	5220	Required to enable the ITL to monitor replacement against notifications
123	Retirement	National registry retirement	The initiating registry retiring units must be a national registry	19/CP.7, annex, paragraph 34	5251	The CDM registry cannot retire units
124	Retirement	Retirement account	The acquiring account for a retirement transaction must be a retirement account	19/CP.7, annex, paragraph 34	5252	
125	Retirement	Retirement account identifier	Account identifiers must be provided for acquiring accounts in retirement transactions	24/CP.8, annex, paragraph 7	5253	The ITL normally checks only the account type; in the case of retirement, the ITL checks that the account identifier matches an account specified for this purpose by the registry
126	Retirement	Retirement account commitment period	The unit blocks retired must have the same applicable commitment period as the retirement account	19/CP.7, annex, paragraph 21	5254	Required to enable the ITL to monitor retirement requirements for the commitment period

No.	Process type	Check name	Check description	COP decision	Code	Additional notes
127	Retirement	CER, tCER and ICER retirement eligibility	The Party of the initiating registry must be determined to meet eligibility criteria 1 through 6	17/CP.7, annex, paragraph 31	5255	All eligibility criteria must be met by the Annex B Party before its registry may conduct retirements of CERs, tCERs or ICERs; the ITL draws upon records in the C&A database concerning each Party's fulfilment of the criteria
128	Retirement	tCER and ICER retirement limit	tCER and ICER retirement must not exceed allowed quantity	11/CP.7, annex, paragraph 14 19/CP.7, annex, paragraph 31 19/CP.9, annex, paragraph 51	5256	The allowed quantity of tCER and ICER retirement is based on the level of allowed AAUs issuance by the Annex B Party for the commitment period; the ITL draws this quantity from the C&A database
129	Carry-over	National registry carry-over	The initiating registry carrying over units must be a national registry	19/CP.7, annex, paragraphs 15, 36	5301	The CDM registry cannot carry over units
130	Carry-over	Holding account carry-over	The initiating account for a carry-over transaction must be a holding account		5302	Units cannot be carried over if they are cancelled, used in replacement, or retired
131	Carry-over	Subsequent commitment period	Units may be carried over only to the next subsequent commitment period	19/CP.7, annex, paragraphs 15, 36	5303	
132	Carry-over	Units available for carry-over	The quantity of units of each type carried over must not exceed limit for carry over established by the Compliance Committee for the Party and reported to the registry in the unit carry-over notification	19/CP.7, annex, paragraphs 15, 62 (c)	5304	Only AAUs, ERUs (converted from AAUs) and CERs may be carried over to the next commitment period; these quantities must take account of the level of carry-over allowed for ERUs and CERs; the quantities of units available for carry-over, determined through the reporting, review and compliance procedures, are to be stored in the C&A database and contained in the final compilation and reporting report for each Annex B Party
133	Carry-over	RMU carry-over	RMUs may not be carried over	19/CP.7, annex, paragraph 16	5305	
134	Carry-over	ERU (from RMUs) carry-over	ERUs converted from RMUs may not be carried over	19/CP.7, annex, paragraph 15 (a)	5306	
135	Carry-over	tCER or ICER carry-over	tCERs or ICERs may not be carried over	19/CP.9, annex, paragraphs 41, 45	5307	
136	Carry-over	Notification ID for carry-over	Units may be carried over only if a notification has been received from the ITL and this ID is reported in the transaction		5310	Required to enable the ITL to monitor carry-over against notifications
137	Carry-over	Carry-over unit type	Unit blocks carried over must be consistent with the unit type specified in the unit carry-over notification		5311	Required to enable the ITL to monitor cancellation against notifications
138	Expiry date change	Units for expiry date change	The units for expiry date change must be tCERs or ICERs	19/CP.9, annex, paragraphs 42, 46	5450	AAUs, RMUs, ERUs and CERs cannot be involved in expiry date change transactions

No.	Process type	Check name	Check description	COP decision	Code	Additional notes
139	Expiry date change	New tCER expiry date	The new tCER expiry date must be consistent with the end date of the commitment period subsequent to the original commitment period of the tCER	19/CP.9, annex, paragraph 42	5451	For practical purposes, prior to a date being negotiated for the end of the second commitment period, tCERs are issued with an assumed expiry date (e.g. 31 December 2017 for the second commitment period); if a different date is negotiated and the expiry date of tCERs must be changed, this check ensures that only the correct date may be inserted
140	Expiry date change	New lCER expiry date	The new lCER expiry date must be consistent with the end date of the renewed crediting period for the project specified by the CDM Executive Board	19/CP.9, annex, paragraph 46	5452	If the crediting period of a project generating lCERs is renewed, this information must be supplied by the CDM Executive Board to the ITL in order for this check to ensure that only the correct date may be inserted in the process of changing expiry dates of the lCERs

Annex III

Coverage of relevant decisions of the Conference of the Parties

1.   These tables show the provisions contained in the annexes of relevant decisions of the Conference of the Parties (COP) for which checks have been defined for the international transaction log (ITL). They contain the same information as annexes I and II but reverse the mapping to put the paragraph references first. Check numbers are given against each paragraph to indicate which checks have been defined to implement the relevant provision. Only the key checks have been identified in this annex.

2.   The checks listed in these tables have been differentiated as being primarily:

(a)   Of a technical nature, in that they have been developed to ensure that all registry systems communicate in a compatible manner through the data exchange standards;

(b)   Of a policy nature, in that they have been developed to monitor the validity of transactions in relation to the modalities, rules and limits under the Kyoto Protocol in the relevant COP decisions.

3.   It should be noted that the distinction between technical and policy-related checks is only intended as a useful approach to considering the checks of the ITL. It has no bearing on the functioning of the checks themselves. In many cases, the checks serve both technical and policy-related purposes.

Provisions contained in decision 19/CP.7

Paragraph	Topic of paragraph	Relevant check number	
		Technical nature	Policy nature
15	Carry-over of units		129, 131, 132
15 (a)	Carry-over of ERUs		86, 134
16	No carry-over of RMUs		133
21	Account types in national registry		94, 96, 98, 107, 126
23	Issuance of AAUs in national registry		69
24	Unique serial numbers of AAUs		68
25	Issuance of RMUs in national registry		70
26	No issuance of RMUs		70
27	Unique serial numbers of RMUs		50, 68
28	Limitation on RMU issuance from forest management		70
29	Conversion of AAUs and RMUs into ERUs in national registry	29, 30	63, 68, 82, 84, 85
32	Net source cancellation		94, 96
33	Non-compliance cancellation		94, 96
34	Retirement of units		123, 124
35	No further transfer or carry-over of units previously transferred to cancellation accounts or retirement account, or previously used to replace tCERs or lCERs		57, 58
36	Carry-over of units to the subsequent commitment period		50, 129, 131
37	Non-compliance cancellation		94, 96
39	Issuance of AAUs, RMUs and ERUs		48, 49, 52, 62, 64
40	Initiation of transfer of units		48, 49, 52, 53
41 (a)	Elements of unique transaction number	11	
62 (c)	Information on quantities of AAUs, CERs and ERUs available for carry-over to be included in compilation and accounting reports		132

Provisions contained in decision 24/CP.8

Paragraph	Topic of paragraph	Relevant check number	
		Technical nature	Policy nature
6	Standardized message sequence	3, 12, 14, 34, 35, 36, 37, 39, 40, 41, 42, 43, 44, 45	
7	Message sequence and content	3, 14, 34, 35, 36, 37, 39, 40, 41, 42, 43, 44, 45	97, 106, 125
7 (a)	Time certification	15	
7 (d)	Information in the transaction record	23, 24	
7 (e)	Status of the transaction	46	
8	Common language protocol	3	
9	Messaging format	4, 5	
12	Time frame of subsequent messages	6	
13	Availability of units		56
14	Elements of unique serial number	20, 21, 23, 24, 25, 26, 27, 28, 29, 30	74, 75
16	Elements of unique account number	16, 17, 18	
17	Elements of unique transaction number	11, 12, 33, 34, 42, 46	
19	Common protocol for the testing, initialization and suspension of registry operation	8, 9, 10	
20 (b)	Authentication of communicating registry systems	1, 2, 7	
26	Reconciliation of data between registries and ITL		54

Provisions contained in decision 16/CP.7

Paragraph	Topic of paragraph	Relevant check number	
		Technical nature	Policy nature
16/CP.7, COP/MOP draft decision, paragraph 4	JI LULUCF projects to conform to definitions, accounting rules, modalities and guidelines under Articles 3.3 and 3.4		86
21	Eligibility requirements to participate in JI		80, 81, 90
22	Eligibility determination to participate in JI		80
23	Eligibility to participate in JI (track 1)		80
24	Eligibility to participate in JI (track 2)		81, 87, 88, 89
39	Determination of reported emission reductions and removals		87

Provisions contained in decision 17/CP.7

Paragraph	Topic of paragraph	Relevant check number	
		Technical nature	Policy nature
22	Cancellation for compensating excess CERs issued	19	92
31	Eligibility to use CERs for compliance		127
66	Issuance and distribution of CERs		90
App.D, 3	Account types in the CDM registry		92, 95, 96
App.D, 6	Issuance and distribution of CERs		73
App.D, 7	Elements of unique serial number of CERs		68
App.D, 8	Cancellation for compensating excess CERs issued		95

Provisions contained in decision 18/CP.7

Paragraph	Topic of paragraph	Relevant check number	
		Technical nature	Policy nature
2	Eligibility to participate in emissions trading		88, 90
8	Requirement to maintain CPR		91
9	Recovery of unit holdings level to maintain CPR		91
10	Exclusion of the first transfer of track 2 ERUs from the CPR rule		91

Provisions contained in decision 11/CP.7

Paragraph	Topic of paragraph	Relevant check number	
		Technical nature	Policy nature
11	Limit on forest management activities		86
14	Limit on tCERs and lCERs to be retired		128

Provisions contained in decision 24/CP.7

Paragraph	Topic of paragraph	Relevant check number	
		Technical nature	Policy nature
Chapter XV, 5 (c)	Suspension from making external transfers as a result of not meeting its emissions target for the previous commitment period		93

Provisions contained in decision 19/CP.9

Paragraph	Topic of paragraph	Relevant check number	
		Technical nature	Policy nature
35	Certification of net removals by DOE		60
38	Approach to address non-permanence		71
39	Consistency of choice of unit type		72
41	No carry-over of tCERs		135
42	tCER expiry	31, 32	59, 76, 138, 139
43	tCER replacement account		104
44	Replacement of tCERs held in holding and retirement accounts for expiry		103, 108, 110, 111, 113, 115
45	No carry-over of lCERs		135
46	lCERs expiry	31, 32	59, 77, 138, 140
47	lCER replacement accounts		105
48	Replacement of lCERs held in retirement account for expiry		103, 111, 114, 116
49	lCERs replacement for reversal in storage	19	61, 103, 110, 114, 117, 120, 122
50	lCERs replacement for non-submission of certification report	19	61, 103, 110, 114, 117, 121, 122
51	Limit on tCERs and lCERs to be retired		128
52	No transfer of tCERs and lCERs to net-source, non-compliance and excess issuance cancellation accounts		99, 100
53	Cancellation of expired tCERs and lCERs held in holding accounts		59
54	Verification by ITL of non-discrepancy		112, 118, 119, 120, 121, 122
55	Prior notification by ITL on requirements to replace tCERs and lCERs for expiry	19	118, 119
App.D, 3	Mandatory cancellation account in the CDM registry		96, 103

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