List of checks to be performed by the international transaction log

Draft, 3 November 2004

Introduction

1. This draft note has been prepared by the UNFCCC secretariat, as administrator of the international transaction log (ITL)[1], in order to present the checks to be performed by the ITL in its function of verifying the validity of transactions undertaken through the national registries of Annex I Parties and the registry established for the clean development mechanism (CDM) under its Executive Board. These checks are based on relevant draft decisions recommended to the Conference of the Parties serving as the meeting of the Parties to the Kyoto Protocol (COP/MOP), as attached to decisions adopted by the Conference of the Parties[2], as well as on technical criteria developed for the data exchange standards.

2. In order to present the ITL checks in the context in which they are to operate, this note describes the basic aspects of the ITL and the relevant elements of the data exchange standards to be implemented by registry systems. The checks themselves are listed in the tables contained in annexes 1 and 2, with those contained in annex 1 being primarily of a technical nature and those contained in annex 2 being primarily of a policy-related nature. These tables provide references to the relevant provisions of draft COP/MOP decisions, as well as brief descriptions of how the checks are to function. In this manner, this note aims to enhance the understanding of the ITL checks and their relation to the modalities, rules and limits to be applied by Parties under the Kyoto Protocol.

3. Annex 3 provides the same information as annexes 1 and 2, but starts from the provisions of the draft COP/MOP decisions and matches against each the ITL checks which are of highest relevance. Annex 3 therefore seeks to demonstrate the manner in which each provision is covered by the ITL checks.

4. The lists of checks to be performed by the ITL are specified in the ITL technical specifications and are also reflected in the technical specifications of the data exchange standards. In accordance with decisions 19/CP.7 and 24/CP.8, these technical specifications have been under development by the secretariat, in collaboration with registry experts, since mid 2003[3].

Relation of the international transaction log to registries

5. The purpose of the ITL is to verify the validity of transactions performed by Parties and their entities in implementing the modalities for the accounting of assigned amounts under Article 7.4[4], as established by decision 19/CP.7. These modalities therefore relate to:

(a) The issuance, cancellation, replacement and retirement (use) of units to demonstrate the compliance of each Annex B Party to the Protocol with its emissions target;

(b) The transfer and acquisition of issued units between Parties under the mechanisms established by the Kyoto Protocol.

---

1 In accordance with decision 19/CP.7, the secretariat is to establish and maintain the ITL.

2 Decision 19/CP.7 (modalities for the accounting of assigned amounts);
Decisions 15-18/CP.7 (modalities and procedures for the mechanisms under the Kyoto Protocol);
Decision 11/CP.7 (land use, land-use change and forestry);
Decision 19/CP.9 (afforestation and reforestation project activities under the CDM;
Decision 24/CP.8 (general design requirements of the data exchange standards).

3 See the latest versions at <http://unfccc.int/meetings/workshops/other_meetings/items/3167.php>.

4 The term “Article” in this note refers to an Article of the Kyoto Protocol, unless otherwise specified.

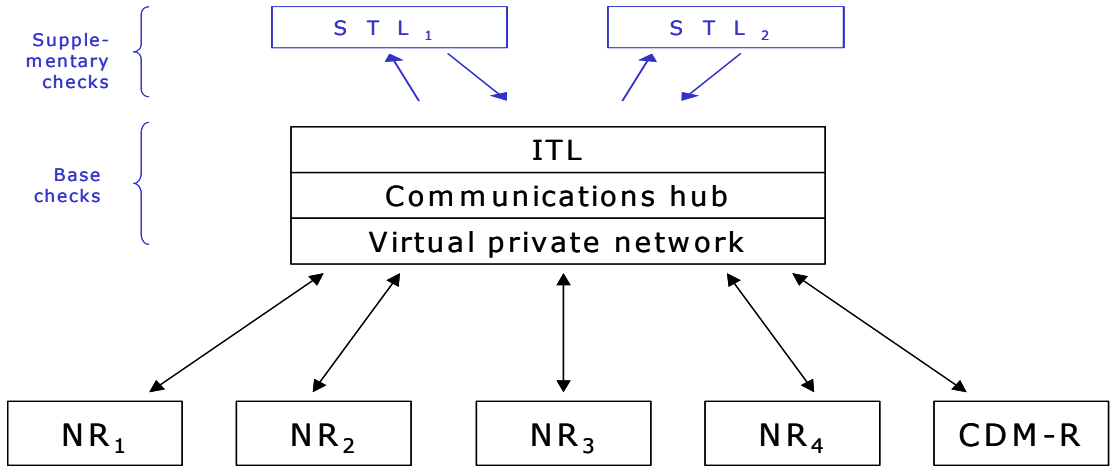
6. All transactions are initiated, tracked and recorded through a system of accounts in the national registries of Annex B Parties or the CDM registry, in which units are held by non-Annex I Parties and their entities participating in project activities under the CDM. The registries use electronic databases to record the unit holdings and transactions for each account. They integrate communications modules in order to manage the links through the internet to the wider network of registry systems.

7. The role of the ITL is not to initiate transactions or hold units. Instead, its role is to monitor the validity of any transactions performed by registries which affect the overall amount of units which Parties may use for compliance purposes under the Kyoto Protocol. These transactions include the issuance, replacement, cancellation and retirement of units, as well as their transfer and acquisition between registries. They do not include transfers and acquisitions between holding accounts in a single registry.

8. In order to perform this role, the ITL is to be integrated within the electronic communications between registries, as illustrated in the figure below. Specifically, in accordance with decision 24/CP.8, the ITL is to maintain a communications hub connected via secure internet connections (virtual private network) to all registries. Registries are linked to each other only via the communications hub.

9. The registries initiate a transaction by creating and transmitting a message to the communications hub with information on the proposed transaction (quantity, type and serial numbers of units, relevant account types and numbers, transaction status, etc). The ITL checks the transaction proposal and returns a message to the registries concerned, indicating whether the proposed transaction conforms with the modalities, rules and limits established by the relevant draft COP/MOP decisions.

Network of linked registry systems



Where NR = National registries of Annex B Parties
CDM-R = CDM registry with accounts of non-Annex I Parties
ITL = International transaction log, maintained by the secretariat
STL = Supplementary transaction log (e.g. CITL maintained by the European Commission)

10. In the event that no discrepancy from these rules is identified in a transaction proposal, the ITL returns a positive message to the registry and the registry may proceed in completing the transaction. However, in the event that the ITL does identify a discrepancy, the initiating registry is required under decision 19/CP.7 to terminate the transaction. Such messages from the ITL contain a “response code”, which indicates to the registry the nature of the discrepancy. In the case of transfers and acquisitions involving more than one registry, the ITL also notifies the acquiring registry of its check results.

11. The network of registry systems, as described above, has been extended to accommodate the requirements of groups of Parties in establishing additional transaction logs to monitor the fulfilment of rules under regional emissions trading schemes. From the perspective of the ITL, such systems are considered supplementary transaction logs (STLs). A transaction proposal will only be forwarded to a STL where a registry involved is a member of the relevant regional trading scheme and is therefore subject to its rules. Where a transaction proposal does not involve a member of such a regional scheme, it remains unaffected by this extension of the registry systems network.

12. The only example of an STL currently under development is the Community Independent Transaction Log (CITL) under the EU emissions trading scheme. It does not duplicate the ITL checks mandated under the Kyoto Protocol (referred to here as "base checks"). Instead, when a transaction proposal is made which involves a registry of an EU Member State, the ITL completes its base checks and forwards the message to the CITL so that it may perform "supplementary checks" mandated by EU legislation. On completion, the CITL sends a message back to the ITL, which forwards it to the relevant registries. The development of the CITL has defined its own response codes to communicate the results of its supplementary checks to EU registries (these response codes are not addressed in this note).

Data exchange standards

13. This network of registries and the ITL 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 registries and in the ITL. 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 registries and the ITL[5].

14. The data exchange standards cover 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 Articles 3.7 and 3.8;

(b) Removal units (RMUs): Issued by Annex B Parties on the basis of its land use, land-use change and forestry activities under Articles 3.3 and 3.4;

(c) Emission reduction units (ERUs): Converted from AAUs or RMUs by Annex B Parties on the basis of joint implementation projects under Article 6;

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

(e) Temporary CERs (tCERs): Issued in the CDM registry upon instruction by the Executive Board of the CDM, on the basis of enhanced removals of greenhouse gases certified as occurring through afforestation or reforestation CDM project activities under Article 12;

(f) Long-term CERs (lCERs): Issued in the CDM registry upon instruction by the Executive Board of the CDM, on the basis of enhanced removals of greenhouse gases certified as occurring through afforestation or reforestation CDM project activities under Article 12.

[5] This note discusses aspects of the data exchange standards relevant to understanding the checks to be performed by the ITL. For further information on these standards, see version 1.0 (draft #7) of the technical specifications at <http://unfccc.int/meetings/workshops/other_meetings/items/3167.php>.

15. The technical specifications of the data exchange standards define transaction processes to be implemented in registries and the ITL. Each process defines the sequence, content and format of electronic communications to be used in completing a transaction. These specifications further define the minimal processing steps required for registries and the ITL, in particular in relation generating and transmitting messages and recording information in a manner which may be examined subsequently.

16. The following nine transaction processes have been defined by the data exchange standards:

(a) Issuance: Initial creation of an AAU, RMU, CER, tCER or lCER;

(b) Conversion: Transformation of an AAU or RMU into an ERU;

(c) External: External transfer of a unit to an account in another registry;

(d) Cancellation: Internal transfer of a unit to a cancellation account within a registry, in order that it cannot be used by an Annex B Party for compliance with an emissions target (five cancellation account types provide for separate tracking of the reasons for cancelling units[6]);

(e) Retirement: Internal transfer of a unit to a retirement account within a registry, in order that it can be used for compliance with the emissions target of the Party undertaking the retirement (each Annex B Party maintains one retirement account for each commitment period);

(f) Replacement: Internal transfer of a unit to a replacement account within a registry, in order to replace tCERs or lCERs when this is required (four types of replacement account provide for separate tracking of the reasons for replacing units[7]);

(g) Carry-over: Change of validity of a unit to the subsequent commitment period, by changing the *applicable commitment period identifier* of the serial number (the *original commitment period identifier* remains unchanged to denote the period of issuance);

(h) Expiry date change: Change of the expiry date of a lCER when the crediting period of the project activity is renewed, or of a tCER when the end-date of the second commitment period is defined other than that originally assumed, for technical reasons, upon issuance;

(i) Internal transfer of a unit within the same registry, where the registry is subject to rules established by a regional trading scheme (e.g. the EU emissions trading scheme)[8].

---

[6] Type 1: Net source cancellation (for net LULUCF emissions under Articles 3.3 and 3.4);
Type 2: Non-compliance cancellation (for non-compliance with an emissions target in the previous commitment period);
Type 3: Voluntary cancellation (where cancellation is voluntarily carried out by the holder of the unit);
Type 4: Excess issuance cancellation (where the CDM Executive Board determines that a designated operational entity must compensate for prior excess issuance of CERs, tCERs or lCERs);
Type 5: Mandatory cancellation (for removing the following units from holding accounts: tCERs and lCERs which have expired, lCERs which have become permanently ineligible for transfer under decision 19/CP.9, and any units, after the additional period for fulfilling commitments, which have not been carried over to the next commitment period).

[7] 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 of 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 certification in accordance with decision 19/CP.9).

17. In addition, the data exchange standards define a reconciliation process, made up of three phases, to be performed on a regular basis in order to compare a registry's records of unit holdings and transactions with the equivalent records held by the ITL. Where an inconsistency is identified through these reconciliation processes, the records of the registry or the ITL are to be adjusted as necessary.

Notifications by the ITL

18. The technical specifications of both the ITL and the data exchange standards define a number of electronic notifications to be sent to registries by the ITL in order to notify registries of requirements to undertake certain actions. These notifications serve as announcements and reminders that a requirement for a particular action is imminent and enable the ITL to monitor the extent to which they are fulfilled.

19. The following types of ITL notification have been defined:

(a) Replacement notifications: To notify a registry that actions to replace tCERs or lCERs need to be carried out within 30 days. Such requirements may arise from the impending expiry of tCERs or lCERs, a reversal in reversal carbon storage on lands covered by an afforestation or reforestation CDM project activity, or a failure by project participants in such a project activity to submit a certification report within the required timeframe[9];

(b) Cancellation notifications: To notify a registry that actions to cancel units need to be carried out within 30 days. Such requirements may arise where the review and compliance procedures under the Kyoto Protocol determine that there has been a net emission from a Party's activities under Articles 3.3 and 3.4 (net source cancellation) or non-compliance with an emissions target in a previous commitment period (non-compliance cancellation)[10];

(c) Excess issuance notifications: To notify registries that a designated operational entity has been required by the CDM Executive Board to cancel units, within 30 days, in order to compensate for the excess issuance of CERs, tCERs or lCERs from a CDM project activity[11];

(d) Commitment period reserve (CPR) notifications: To notify a registry that actions to raise the holdings of eligible units need to be carried out within 30 days. Such requirements may arise where a revision in the emissions inventory of the Party, or the cancellation or replacement of units within its registry, leads to the Party's required CPR level being higher than the holdings of eligible units within its registry[12];

(e) Unit carry over notifications: To notify a registry that actions to carry over units to the subsequent commitment period, or otherwise to cancel units which are not carried over, may be undertaken within 30 days. These notifications are to specify the quantities of AAUs, ERUs (converted from AAUs) and CERs that may be carried over, as determined by the review and compliance procedures under the Kyoto Protocol and taking account of the limits

---

[8] Electronic messages pertaining to such internal transfers are forwarded to the relevant STL for checking against the rules established by the regional trading scheme. Such internal transfers are not subject to the transaction-related checks being implemented by the ITL.

[9] See the annex to decision 19/CP.9, paragraphs 44, 48, 49 and 50.

[10] See the annex to decision 19/CP.7, paragraphs 32 and 37. It should be noted that these paragraphs do not specify that such cancellation shall take place within 30 days of the notification. This notification is intended to clarify the time at which the national registry is informed of the requirement to cancel units and establish a timeframe after which holdings of such units no longer contribute to the eligible holdings against which the CPR is compared. This timeframe is consistent with those established for other required actions to be carried out within national registries.

[11] See the annex to decision 17/CP.7, paragraph 22.

[12] See the annex to decision 18/CP.7, paragraph 9.

for the carry-over of ERUs and CERs set by decision 19/CP.7. Such actions may therefore only take place after the additional period for fulfilling commitments (the "true-up" period) and after the completion of the review and compliance procedures[13].

20. In undertaking actions in response to ITL notifications, each registry is to include the identifier of the ITL notification in the electronic messages it transmits to the ITL[14]. This enables the ITL to associate each relevant transaction with a specific notification and therefore to monitor when the requirement contained in the notification has been fulfilled. Such monitoring generally occurs through generating totals for all the transactions 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 have been specified in a notification, have been replaced by the time of their expiry.

21. Some of the checks performed by the ITL relate to these notifications. These checks primarily relate to ensuring that notification identifiers are included in messages transmitted to the ITL when replacement, cancellation and carry-over transactions are initiated by registries.

ITL checks and response codes

22. The checks to be performed by the ITL are inherent to the transaction processes set out in the data exchange standards and the design of the ITL[15]. Some checks have been developed to ensure that all registry systems communicate in a compatible manner which can be read by all systems. Other checks have been developed to monitor the validity of transactions in relation to the modalities, rules and limits to be applied by Parties under the Kyoto Protocol and set out in the relevant draft COP/MOP decisions.

23. Annexes 1 and 2 contain the following aspects of the responses to be sent by the ITL to registries:

(a) Four-digit *response codes*, to be sent by the ITL to registries to indicate that a discrepancy has been identified and to provide information on the reasons for the check failure;

(b) *Check name* and *check description*, indicating the discrepancy each check is looking for;

(c) *Check category*, indicating the order in which the checks are performed;

(d) *Transaction types*, indicating for which of the transaction processes defined by the data exchange standards the ITL undertakes the check.

---

[13] See the annex to decision 19/CP.7, paragraph 15. It should be noted that this paragraph do not specify that such carry-over or cancellation shall take place within 30 days of the notification. This notification is intended to clarify the time at which the national registry is informed of the requirement to carry-over or cancel units. This timeframe is consistent with those established for other required actions to be carried out within national registries.

[14] There is no requirement to include the notification identifier in transaction messages in response to CPR notifications, as acquisitions by the registry to fulfil this requirement would be initiated, in a technical sense, by the transmitting registry.

[15] The checks and response codes are specified in annex E of the technical specifications of the data exchange standards. Annex F of the technical specifications of the ITL contains further information on how each check is to be performed by the ITL. For the latest versions of these specifications, see <http://unfccc.int/meetings/workshops/other_meetings/items/3167.php>.

24. The ITL checks are divided into eight check categories, which define the order in which the checks are to be performed. The check categories are as follows:

(a) Version and authentication checks, to authenticate a registry sending the message to the ITL and to verify that the correct version of the data exchange standards is used;

(b) Message viability checks, to verify that the message is viable for processing;

(c) Registry checks, to verify that the registry status allows it to conduct transactions at that time;

(d) Data integrity checks, to verify that the data contents of the message, such as codes and identifiers, are correct;

(e) Message sequence checks, to verify that messages received from registries are communicated in the sequence defined by the data exchange standards;

(f) Message sequence checks, to verify that messages received from STLs are communicated in the sequence defined by the data exchange standards;

(g) General Transaction checks, to verify that proposed transactions conform to general transaction rules that apply to all transactions (except issuance transactions);

(h) Transaction-specific checks, to verify that proposed transactions conform to transaction rules which are defined for specific transaction types (and are not applicable to other transactions).

25. Categories (a) to (f) above tend to be of a technical nature and are to ensure that all registry systems communicate in a compatible manner. Such checks therefore focus on authenticating the communicating registry system and ensuring that the message sequence, format and content are in accordance with the data exchange standards. These message characteristics are necessary in order for the messages to be read and processed by the ITL. These checks are elaborated in annex 1 of this note.

26. Categories (g) and (h) above tend to be of a more policy-related nature and have been developed to monitor the validity of transactions in relation to the modalities, rules and limits set out for the Kyoto Protocol in the relevant draft COP/MOP decisions. For example, these categories cover checks to ensure that Parties are eligible to participate in the mechanisms and to verify that limits on the issuance of units are not exceeded. These general transaction checks and transaction-specific checks therefore tend to be of greater importance to policy makers. They are elaborated in annex 2 of this note.

27. In most cases, the ITL checks are made with reference to data already stored in the ITL. For example, data on the units in a registry is built up over time within the ITL database from the issuance, transfer, cancellation, replacement and retirement transactions seen and monitored by the ITL. This information is used by the ITL, for example, to check whether a unit proposed for transfer to another registry has in fact already been cancelled or retired. Though the ITL maintains no record of the precise account in which units are held by registries, it does keep a record of all the serial numbers and the account types (holding, cancellation, retirement, etc) in which the units are located. This record is regularly compared with the equivalent records in registries through the reconciliation process and is, where necessary, corrected to ensure that information held by the ITL and the registries is the same.

28. Some ITL checks are made with reference to data drawn from processes and sources outside the ITL which have been given the authority, under the Kyoto Protocol, to define or store such data. This is the case for limits on the issuance, conversion and carry-over of units. For example, the quantity of AAUs which may be issued by an Annex B Party is not determined by the ITL. This quantity is instead determined by the assigned amount of the Party pursuant to Articles 3.7 and 3.8, which is set through the reporting, review and compliance procedures under the Kyoto Protocol and is ultimately stored in the compilation and accounting (C&A) database specified under Article 7.4. This approach therefore takes account of the limits on the mandate given to the ITL by the draft COP/MOP decisions.

29. Specifically, the following information from sources outside the ITL are used by the ITL in performing its checks on issuance, conversion and carry-over transactions:

(a) The issuance of AAUs by a registry is checked with reference to the assigned amount of the Party, as reported under Article 7, reviewed under Article 8 and corrected, where necessary, by the procedures under the Compliance Committee. This information on assigned amount is stored in the C&A database to be established by the secretariat;

(b) The issuance of RMUs by a registry is checked with reference to the net removals of greenhouse gases made by the Annex B Party through its activities under Articles 3.3 and 3.4, as reported under Article 7, reviewed under Article 8 and corrected, where necessary, by the procedures under the Compliance Committee. The quantities and timing of allowable RMU issuance, for each activity under Articles 3.3 and 3.4, are to take account of whether the Party has selected to account for the activity on an annual basis or over the entire commitment period. Furthermore, the quantities of allowable RMU issuance, for each activity under Article 3.4 selected by the Party, are to take into account the limits set out in the draft COP/MOP decision annexed to decision 11/CP.7. The ITL also checks the cancellation of units where the activities of the Party under Articles 3.3 and 3.4 result in net emissions. Once the reporting, review and compliance procedures have been completed, the information on net removals or net emissions is stored in the C&A database;

(c) The type and quantity of CER, tCER and lCER issuance by the CDM registry is checked with reference to the issuance instructions of the CDM Executive Board, as stored by the information systems developed by the secretariat to support the activities of the Board;

(d) In the case of joint implementation projects being implemented through the verification procedures under the Article 6 Supervisory Committee (track 2 verification), the quantity of AAUs and RMUs converted by registries are checked with reference to the conversion instructions of the Committee, as stored by the information systems developed by the secretariat to support the activities of the Committee;

(e) The carry-over by registries of AAUs, ERUs (converted from AAUs) and CERs to the subsequent commitment period is checked with reference to the quantities of these units available for carry-over, as calculated within the C&A database. This calculation is undertaken after the additional period for fulfilling commitments, on the basis of information reported under Article 7, reviewed under Article 8 and corrected, where necessary, by the procedures under the Compliance Committee. The quantities of allowable carry-over for ERUs (converted from AAUs) and CERs are to take into account of the limits set out in the draft COP/MOP decision annexed to decision 19/CP.7. The quantities for each Annex B Party are stored in the C&A database and are also contained in the final compilation and accounting report for the Party.

30. It is envisaged that automated, electronic links will be established between the databases and information systems maintained by the secretariat and the ITL. By this means, changes in the data contained in the C&A database or the CDM information system, for example, will be automatically and electronically communicated to the ITL to ensure that the ITL uses the most up-to-date information.

Annex 1

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

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, para 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, para 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 checks fails (no response code is transmitted)
3		WSDL Check	Message must conform to WSDL	24/CP.8, paras 6-8	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, para 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, para 9	1032	Changes in minor version numbers denote less significant changes to the DES which 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 may still communicate

2. Message Validity 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, para 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 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, para 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, para 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, para 19	1504	Registry may be offline for transaction purposes
10		Registry Reconciliation Status	Registry status must allow reconciliation actions to be conducted	24/CP.8, para 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 be comprised of a registry code followed by numeric values	19/CP.7, para 41(a) 24/CP.8 para 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 paras 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 paras 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 DateTime	Transaction Status DateTime must be before the current DateTime and no older than two weeks	24/CP.8 para 7(a)	2005	DateTimes 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, para 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, para 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, para 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
19		Notification Type Code	Notification Type Code must be valid	17/CP.7, para 22 19/CP.9, paras 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, para 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, para 14	2011	Unit Type Codes are part of the serial number of each unit and indicate whether the units is an AAU, RMUs, ERU (from an AAU), ERU (from an RMU), CER, tCER or lCER

No.	Process type	Check name	Check description	COP decision	Code	Additional notes
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, paras 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, paras 7(d), 14	2014	
25		LULUCF Activity Code	RMUs, ERUs converted from RMUs, tCERs and lCERs must have a valid LULUCF Activity Code	24/CP.8, para 14	2015	There are 6 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, para 14	2016	
27		Project Identifier	CERs, tCERs, lCERs and ERUs must have a valid Project Identifier	24/CP.8, para 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, para 14	2018	
29		ERU Track Code	ERUs must have a valid Track Code	19/CP.7, para 29, 24/CP.8, para 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, para 29, 24/CP.8, para 14	2020	
31		Expiry Date	tCERs and lCERs must have an Expiry Date	19/CP.9, paras 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, paras 42, 46	2022	

5. Message Sequence Checks for Transactions from Registries

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, para 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, paras 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, para 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, para 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, para 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 a "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, para 6, 7	3007	This condition is shown by a "terminated" status for the transaction; It refers to a transaction terminated by the initiating registry
40		Transaction Status Out of Sequence for Prior Cancelled Status	Previously cancelled transactions cannot be completed	24/CP.8, para 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, para 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, para 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, para 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, para 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

6. Message Sequence Checks for Transactions from STLs

No.	Process type	Check name	Check description	COP decision	Code	Additional notes
45		Transaction Status Not Compatible with an STL	Transaction status from STL must indicate status of Discrepancy or No Discrepancy	24/CP.8, para 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, paras 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 2

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

7. 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 which 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, paras 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 which ensure that each component of the serial number in provided in a valid format
49		Registry Holds Units	Units identified in the transaction must be held by Initiating Registry	19/CP.7, paras 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, paras 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, paras 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, para 40	4007	External transfers by definition involve two different registries
54		Units Have ITL Inconsistencies	Units identified in the transaction must not have inconsistencies identified through reconciliation with the ITL	24/CP.8, para 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

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

No.	Process type	Check name	Check description	COP decision	Code	Additional notes
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, para 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, para 35	4011	
58		Units are Retired	Retired units must not be subject to further transactions	19/CP.7, para 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, paras 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, para 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		lCER 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, paras 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 para 49 case, lCERs remaining in holding accounts after sufficient units are replaced are unblocked and are again available for transactions

8. 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, para 39	5001	The CDM registry cannot issue AAUs or RMUs
63	Issuance	No ERU Issuance	ERUs cannot be issued	19/CP.7, para 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, para 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
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 unit for multiple commitment periods must be separated into multiple transactions

No.	Process type	Check name	Check description	COP decision	Code	Additional notes
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, App.D, para 7 19/CP.7, paras 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, para 23	5008	The allowed quantity of AAU issuance is set by assigned amount pursuant to Articles 3.7/8, 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, paras 25, 26, 28	5009	The allowed quantities of RMU issuance, by LULUCF activity, are set by rules under Article 3.3/4, 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, para 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, para 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, App D, para 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
74	Issuance	CDM LULUCF Activity Code	The LULUCF Activity Code of tCERs or lCERs proposed for Issuance must be consistent with project activity	24/CP.8, para 14	5013	This info is included in the serial numbers of tCERs and lCERs; The ITL requires info 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 lCERs	24/CP.8, para 14	5014	This info is included in the serial numbers of all CERs, tCERs and lCERs; The ITL requires the project identifier from the CDM Executive Board prior to the first issuance of units for the project

No.	Process type	Check name	Check description	COP decision	Code	Additional notes
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, para 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 Dec 2017) for the issuance process; If necessary, this expiry date may be changed later using the expiry date change transaction
77	Issuance	lCER Expiry Date	Expiry Date for lCERs must be consistent with the end data of the Crediting Period for the Project specified by the CDM Executive Board	19/CP.9, para 46	5016	This info is included in the serial numbers of all lCERs; 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, para 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 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, paras 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 Parties' 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, paras 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 Parties' fulfilment of the criteria
82	Conversion	Conversion Unit Type	Units for conversion must be AAUs or RMUs	19/CP.7, para 29	5056	CERs, tCERs and lCERs 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 separated into multiple transactions
84	Conversion	Conversion by Issuing Registry	Units for conversion must have been issued by Initiating Registry	19/CP.7, para 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, para 29	5059	This info 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) prior to the first conversion of units for the project

No.	Process type	Check name	Check description	COP decision	Code	Additional notes
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 dec. para 4 11/CP.7, para 11 19/CP.7, para 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 info 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, paras 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 issued in multiple transactions over time but must not exceed the allowed quantity of ERUs
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, para 2, 16/CP.7, para 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 Parties' 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)
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, para 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 Parties' fulfilment of the criteria

No.	Process type	Check name	Check description	COP decision	Code	Additional notes
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, para 21 17/CP.7, para 66 18/CP.7, para 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 Parties' 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, paras 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 on the left 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	CDM Registry can only receive external transfers to Cancellation accounts for compensating excess issuance of CERs, tCERs and lCERs	17/CP.7, para 22 17/CP.7, App.D, para 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
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, Article XV, para 5(c)	5106	This refers to the one of the consequences for an Annex BParty 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 Cancellation Accounts must take place in a national registry	19/CP.7, paras 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, App.D, para 3	5152	This cancellation account does not exist in national registries

No.	Process type	Check name	Check description	COP decision	Code	Additional notes
96	Cancellation	Cancellation Accounts	The Acquiring Account for a cancellation transaction must be a cancellation account	17/CP.7, App.D, para 3 19/CP.7, paras 21, 32, 33, 37 19/CP.9, App.D, para 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, para 7	5154	The ITL normally checks only the account type; In the cancellation case, 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, para 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, para 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, para 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 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 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
103	Replacement	National Registry Replacement	The Initiating Registry replacing units must be a national registry	19/CP.9, paras 44, 48, 49, 50 and Annex D para 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, para 43	5202	
105	Replacement	lCER Replacement Account	The Acquiring Account for a replacement transaction involving lCERs must be a lCER Replacement Account	19/CP.9, para 47	5203	
106	Replacement	Replacement Account Identifier	Account Identifiers must be provided for Acquiring Accounts in replacement transactions	24/CP.8, para 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

No.	Process type	Check name	Check description	COP decision	Code	Additional notes
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, para 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, paras 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; Unit 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, paras 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, paras 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, para 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, para 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)
114	Replacement	Location of Replaced lCERs	lCERs to be replaced must not be held in Cancellation accounts	19/CP.9, paras 48, 49, 50	5212	Requirements to replace lCERs 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 lCERs	19/CP.9, para 44	5214	
116	Replacement	lCER Replacement Units (upon Expiry)	lCER Replacement accounts (for unit expiry) cannot acquire tCERs or lCERs	19/CP.9, para 48	5213	
117	Replacement	lCER Replacement Units (upon Reversal of Storage or Lack of Certification Report)	lCER Replacement accounts (for reversal in storage or lack of certification report) cannot acquire tCERs and cannot acquire lCERs with a Project Identifier other than that specified in the replacement notification	19/CP.9, paras 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, paras 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 lCER Expiry	If provided, the Replacement Notification ID must be valid and must be for replacement upon lCER expiry	19/CP.9, paras 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

No.	Process type	Check name	Check description	COP decision	Code	Additional notes
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, paras 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, paras 50, 54	5219	Required to enable the ITL to monitor replacement against notifications
122	Replacement	Project ID for lCERs Replacement (upon Reversal of Storage or lack of Certification Report)	For lCER replacement transactions upon Reversal of Storage or lack of a Certification Report, the Project ID for the lCERs to be replaced must be consistent with the Project ID contained in the replacement notification	19/CP.9, paras 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, para 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, para 34	5252	
125	Retirement	Retirement Account Identifier	Account Identifiers must be provided for Acquiring Accounts in retirement transactions	24/CP.8, para 7	5253	The ITL normally checks only the account type; In the retirement case, 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, para 21	5254	Required to enable the ITL to monitor retirements requirements for the commitment period
127	Retirement	CER, tCER and lCER Retirement Eligibility	The Party of the initiating registry must be determined to meet eligibility criteria 1 through 6	17/CP.7, para 31	5255	All eligibility criteria must be met by the Annex B Party before its registry may conduct retirements of CERs, tCERs or lCERs; The ITL draws upon records in the C&A database concerning each Parties' fulfilment of the criteria
128	Retirement	tCER and lCER Retirement Limit	tCER and lCER retirement must not exceed allowed quantity	11/CP.7, para 14 19/CP.9, para 51	5256	The allowed quantity of tCER and lCER 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, paras 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 is 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, paras 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, paras 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, para 16	5305	
134	Carry-over	ERU (from RMUs) Carry-over	ERUs converted from RMUs may not be carried-over	19/CP.7, para 15(a)	5306	

No.	Process type	Check name	Check description	COP decision	Code	Additional notes
135	Carry-over	tCER or lCER Carry-over	tCERs or lCERs may not be carried over	19/CP.9, paras 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 lCERs	19/CP.9, paras 42, 46	5450	AAUs, RMUs, ERUs and CERs cannot be involved in Expiry Date Change transactions
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, paras 42	5451	For practical purposes, prior to a date being negotiated for the end of the subsequent commitment period, tCERs are issued with an assumed expiry date (e.g. 31 December 2017 for the 2nd 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, para 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 3

Coverage of relevant COP/MOP draft decisions

1. These tables show the provisions contained in the annexes of relevant COP/MOP decisions for which checks have been defined for the ITL. It contains the same list of checks as is contained in annexes 1 and 2. Only the key checks have been identified in this annex.

2. The checks listed in this annex have been differentiated as being primarily of a:

(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) Policy nature, in that they have been developed to monitor the validity of transactions in relation to the modalities, rules and limits set out for the Kyoto Protocol in the relevant draft COP/MOP decisions.

3. It should borne in mind 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.

Table 1
Decision 19/CP.7 (Modalities for the accounting of assigned amounts under Article 7.4)

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

Table 2
Decision 24/CP.8 (Technical standards for data exchange between registry systems)

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, initialisation 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

Table 3
Decision 16/CP.7 (Guidelines for the implementation of Article 6)

Paragraph	Topic of paragraph	Relevant check number	
		Technical nature	Policy nature
16/CP.7, COP/MOP draft dec. para 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

Table 4
Decision 17/CP.7 (Modalities and procedures for a clean development mechanism as defined in Article 12)

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

Table 5
Decision 18/CP.7 (Modalities, rules and guidelines for emissions trading under Article 17)

Paragraph	Topic of paragraph	Relevant check number	
		Technical nature	Policy nature
2	Eligibility to participate in ET		88, 90
8	Requirement to maintain commitment period reserve (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

Table 6
Decision 11/CP.7 (Land use, land-use change and forestry)

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

Table 7
Decision 24/CP.7 (Procedures and mechanisms relating to compliance)

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

Table 8
Decision 19/CP.9 (Modalities and procedures for afforestation and reforestation project activities under CDM)

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 types		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 for 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