

Bhutan Electronic Clearing House

Procedural Guidelines



Royal Monetary Authority of Bhutan

Thimphu, Bhutan

(2017)

Procedural Guidelines for Cheque Truncation System 2017

Brief Introduction

The rules for the Bhutan Electronic Clearing House (BECH) shall be applied at each Bank Service Centre as well as the Clearing And Settlement House (CASH). The rules have been drafted for Magnetic Ink Character Recognition (MICR) encoded paper Ngultrum cheques being truncated and filed at the Bank Service Centre receiving a deposit of cheques for clearing from a collecting bank/branch and followed by a flow of images from the Bank branch/Bank Service Centre through the CASH to the Paying Bank. Similarly, images shall be returned if there be any valid reason for non-payment and one possible second collection effort made for those images (cheques) that were returned due to reason mentioned in **Appendix 5**. The rules shall be reviewed by the RMA as and when required and amendments shall be made to improve efficiency of operations or for new service offerings as appropriate.

Objectives

The objectives of BECH are:

- a) To make improvement in clearing and settlement of cheques in T+1;
- b) To harness the benefits of existing technology;
- c) To enhance efficiency and effectiveness of operations;
- d) To reduce paper works and administrative burdens between banks;
- e) To make proper use of electronic capabilities;
- f) To deter and prevent frauds; and
- g) To provide appropriate reports to Royal Monetary Authority (RMA), banks and others agencies involved with interbank payments.

Hours of Operations

Each Bank Service Centre and CASH shall operate on all working days and shall be closed on Saturdays, Sundays and national holidays. For local holidays, Bank Service Centre shall operate on a limited basis by receiving images for presentment to the Paying Bank that is closed for customer transactions and open for returning images not eligible for payment. CASH shall operate on all local holidays and settlement information shall be posted on accounts maintained by eligible institutions at RMA. A schedule of operating hours on a daily basis is shown in **Appendix 1**.

BECH Rules

The rules stipulates the general responsibilities of the Collecting Bank/Branch, the Bank Service Centre, the CASH, the RMA for settlement, and the Paying Bank making payment for valid images on behalf of their account holders and the return of unpaid images.

A. Document Preparation by Collecting Bank/Branch

The collecting bank/branch will prepare the document for forwarding to the Bank Service Centre as noted below:

- a. Each cheque will be placed face up in normal reading position with the MICR encoded numbers on the lower edge.
- b. The collecting bank/branch will validate that each cheque:
 - i. Has a paying bank identification number and cheque number encoded in MICR characters and a bank customer account number in the proper location on the cheque.
 - ii. There are no cheques postdated or stale dated (over six [6] months) or 180 days,
 - iii. There is a signature on each cheque,
 - iv. There is an amount present,
 - v. The amount is of the same value both in words and figures, and
 - vi. Non-qualifying cheques will be returned to the depositor as ineligible for clearing through BECH.
- c. The collecting bank/branch shall validate that there is a proper endorsement on each cheque. When the endorsement is missing, it must be obtained prior to entering the cheque into the clearing system. Missing endorsements may cause a financial penalty to be assessed to the collecting bank.
- d. All cheques shall have the guarantee affixed to the cheque showing "Accepted for Clearing", and "All prior endorsements and/or lack of endorsement guaranteed" along with the collecting bank number and date as well as the signature of the bank's verifying staff. The Bank Service Centre is not responsible for any defects in the guarantee.
- e. The cheques will be bundled in packets of no more than thirty (30) items. This packet of thirty (30) or fewer items is known as a **batch**.
- f. A listing will be prepared by the collecting bank/branch showing the amount of each cheque and the total of all cheques in the batch. This listing will be included with the batch when forwarding to the Bank Service Centre.
 - i. A Batch Header Document will be prepared showing: (see sample document shown in figure 2),
 - ii. The bank identification number of the collecting bank,

- iii. The total number of cheques in the batch, and
 - iv. The total value of all cheques in the batch.
- j. The Batch Header Document will precede the cheques in the bundle and will identify the cheques in the batch as standard documents. The Batch Header document is to be prepared even if only one cheque is being presented for collection.

1. **Delivery Preparation by the Collecting Bank**

- a. A delivery statement will be prepared showing the collecting bank identification number (See Appendix 2), the total number of batches and the total amount of the cheques in the delivery statement (see sample delivery statement document shown in figure 3).
- b. Multiple batches may be consolidated within one delivery statement.
- c. The delivery statement shall indicate the total number of batches and the total value of all cheques. It will represent the credit value the collecting bank is expecting from the clearing.
- d. A delivery statement shall be prepared even when only one batch (and /or one cheque) is being presented for clearing.
- e. The total amount of all cheques in a batch must equal the amount shown on the Batch Header Document, or appropriate adjustments will be necessary.
- f. Once all batches from a delivery statement have been processed and all cheques have been converted to images, the Collecting bank/branch shall validate the control information from the Delivery Statement. Exceptions will be reported to the Bank Service Centre through accounting adjustment entries and related advices. Large differences (over Nu. 5000) shall be notified electronically (e-mail or fax). The process will continue until all delivery statements have been processed and all cheques converted to images.
- g. The Collecting Bank/Branch shall store all original cheques in a secure location for the appropriate retention period. The documents shall be stored by date processed, unique number assigned by the system and by collecting bank (see **Appendix 3**).
- h. The Collecting Bank/Branch shall retrieve stored cheque documents on demand and provide such documents within 24 hours of receiving the request. Release of a cheque shall be based on an order from a Court or a written instruction from an authorized officer of RMA. The authorization will be filed at the Bank Service Centre along with the receipt and a photocopy of the cheque.
- i. The collecting bank may use the image copy of the cheque as a means to collect funds when it has been advised that a delivery statement of cheques was lost in transit or that cheques were lost.
 - In making use of this feature to collect funds, the collecting bank shall certify the reason for using the image, authenticate the image and hold the paying bank harmless should the original cheque show up either before or after presentment of the image.

- The paying bank needs to be aware that this cheque or image will not be paid two or more times.
- The image must be uniquely identified which will allow the Bank Service Centre to record it during the clearing process.

2. **Delivery Presentment to the Bank Service Centre**

- a. The collecting bank/branch shall be responsible for having the cheques and control documents (Batch Header and Delivery Statement) delivered to the Bank Service Centre on a timely basis.
- b. The collecting bank/branch shall convert all cheques into images, recording both sides of each cheque, batch by batch and verify that each cheque image is satisfactory.
- c. The collecting bank/branch is responsible to notify the Bank Service Centre each day by e-mail (preferable), fax, or by telephone, whether there will be a delivery of items for clearance and truncation, or not. This is considered a positive notification for each business day the collecting bank/branch is open for business.
 - i. When there is to be a delivery of cheque images, the collecting bank/branch shall notify the Bank Service Centre of the delivery statement information (total value and total number of cheques) and the method of delivery to allow the Bank Service Centre to anticipate and validate the actual receipt of the delivery.
 - ii. When there are no cheques images for clearing, there is a need to make that situation known to the Bank Service Centre.
 - iii. An extended telecommunication, or fax equipment, outage at a Bank should be reported to CASH by the Bank Service Centre so that extended presentment times in accordance with that shown in **Appendix 1** may be taken into consideration. Deposits of cheques should continue even if the Collecting Bank/Branch has not notified the Bank Service Centre of a submission.
- c. The Bank Service Centre shall record the information (collecting bank identification, the total value of cheques to be cleared, the total number of cheques and the expected arrival date) in a log book.
- d. The collecting bank will record the amount shown on the delivery statement in its books according to the accounting policies of its organization and post the amounts at the proper time on its books of record.
- e. The collecting bank shall reconcile the amounts that it is collecting through the BECH on a daily basis to assure the correctness of the accounting entries. The collecting bank's Head Office will be notified of any differences or discrepancies on a daily basis.
- f. Discrepancies not reported within seven (7) business days will no longer be considered a discrepancy, but will require an accounting adjustment to the over and short account on the books of the collecting bank.

B. Bank Service Centre Operations

1. Receipt of Cheques for truncation.

- a. The Bank Service Centre shall receive the cheque images for truncation and clearing within the operating hours as shown in **Appendix 1** and forward the electronic file to CASH. After the stated close of business for receiving cheque images, cheque image will be processed as of the next business day and accounting entries will be made similarly.
 - If the Bank Service Centre receives no cheques for truncation on a given business day, it will notify CASH by e-mail (preferable), fax or phone, that there will be no presentment of images for settlement.
- b. The Bank Service Centre shall validate the image of each delivery statement received against the notification record received in advance from each Collecting Bank/branch (by e-mail [preferable], fax or telephone) as to the time of receipt, number of cheques and the total value of all the cheques. Discrepancies will be documented and reported to the Collecting Bank/Branch and to CASH.
- c. When an expected delivery statement has not arrived on time, Bank Service Centre personnel shall conduct an investigation as to the missing the delivery statement, record their findings in a computer file, and forward the file to CASH for information purposes.
- d. The Bank Service Centre shall record the time of day incoming cheque images are received from collecting banks/branches and the method of delivery in the notification log book.

2. Bank Service Centre Processes

- a. The Bank Service Centre shall enter the control information into the image processing system from the delivery statement (collecting bank identification number, total number of batches, and total value of all cheques being forwarded with the delivery statement).
 - Any image that is unsatisfactory shall be ineligible for collection through this system and will be returned to the collecting bank/branch with the reason for non acceptance after appropriate accounting adjustments. Statistical reports will be maintained by the collecting bank/branch and reported to CASH on a monthly basis.
 - For all acceptable images, the Bank Service Centre shall validate the amount to be collected and assure that the paying bank identification number is valid for each cheque in a batch.
- b. The total amount of all cheques in a batch must equal the amount shown on the Batch Header Document, or appropriate adjustments will be necessary.
- c. The Bank Service Centre shall develop electronic files of images from truncated cheques presented by the collecting bank.
- d. The electronic files are to be accurate for accounting and settlement purposes. After validation and correction, when necessary, the image files will be transmitted to the CASH by the specified hour as shown in **Appendix 1**.
- e. The Bank Service Centre shall store all cheque images in a secure location for the appropriate retention period. The documents shall be stored by date processed, unique number assigned by the system and by collecting bank (see **Appendix 3**).

- f. The Bank Service Centre shall retrieve stored cheque documents on demand and provide such documents within 24 hours of receiving the request. When the document is removed from the Bank Service Centre premises a receipt shall be obtained from the person demanding the document. Release of a cheque shall be based on an order from a Court or a written instruction from an authorized officer of RMA.

C. Clearing and Settlement House (CASH)

1. Receipt of incoming image files for clearing and settlement.
 - a. An operator at CASH shall monitor the receipt of files from the Bank Service Centre to assure that the files have been received on a timely basis. When all expected files have been received the CASH operator shall manually begin the clearing and settlement operation. From this point all processes at the CASH shall be automated and conducted without operator intervention. Exception reports shall alert operators to conditions requiring intervention.
 - When a Bank Service Centre has not forwarded a file within fifteen (15) minutes of the close off-hour as shown in **Appendix 1**, the operator will investigate before beginning the automated process and note the action taken in a log book.
 - b. CASH shall validate that it has received all images and the total value of the images for clearing and settlement from each Bank Service Centre. CASH shall also validate that each paying bank identification number (see **Appendix 2**) is valid.
 - c. When controls are acceptable, CASH shall sort out the images by paying bank and develop totals for the images in each file by bank.
 - d. When the clearing process has been completed, CASH shall electronically deliver the images to be paid to each Bank Service Centre for delivery to the paying bank.
 - e. If there are no images for presentment to a Bank Service Centre, then the computer system will automatically notify the Bank Service Centre of this situation (broadcast message).
 - f. If the clearing and settlement be delayed by RMA for more than 60 minutes, then CASH shall notify the participants by a broadcast message/phone/fax/e-mail of the delay and the reason for the delay.
2. **Settlement Information**
 - a. CASH shall calculate the amounts that are to be collected from each paying bank from the images forwarded the Bank Service Centre. CASH shall calculate a settlement amount for each participating bank. However, the settlement shall take place on a net basis at the bank level including all branches of a given bank.
 - b. CASH will deliver a statement of activity to each Bank Service Centre showing all the entries and the net settlement amount. The statement of activity will show entries valid on the current day and those entries that will be posted on a future date (delayed availability because of extended known equipment malfunctions).

- c. The CASH shall deliver a hard copy of the net settlement report to RMA for posting to banks' accounts maintained at RMA.
- d. RMA will post the debits first to ensure that banks have sufficient funds in their account to cover their respective debit position.
 - In the event there are insufficient funds in the account for any participating bank with a net debit position, the RMA will follow internal procedures to ensure that funds are available by end of day to finalize the settlement before the books are closed.
- e. Accounting entries for presentment of images not made the same business day will be deferred until the presentment is made. Presentment is considered to be made when an electronic image has been received at the paying bank. It is expected that presentment will be made the same day to all Paying Bank, except where there is an extended telecommunication, or fax equipment, outage which has been reported to the Bank Service Centre and CASH in advance to make settlement on a deferred basis.
- f. Deferred presentment shall be taken into consideration when calculating net settlement positions and bank branch offices will be advised appropriately.

D. Bank Service Centre (Delivery of Images to the Paying Bank/branch)

- a. Receipt of image files from CASH for presentment to paying bank.
- b. Image files will be received at the Bank Service Centre within two hours of the close off-hour for transmitting electronic files to the CASH as shown in ***Appendix 1***.
- c. Delivery of images to the paying bank will be made within thirty (30) minutes of receipt from the CASH.
- d. The Bank Service Centre shall notify each paying bank in its region that the clearing and settlement has been completed, even if there are no images being presented for payment.
- e. Delivery may be made by electronic connection to a computer, by e-mail, or by fax (stand alone device or through a fax modem). (No deliveries will be made in hard copy except in an emergency).
- f. The receipt of files shall include the amount the paying bank/branch is being charged for the images, the date the amount shall be posted and the number of images in the file.
- g. The Bank Service Centre shall deliver the net settlement amount and the related statement of activity to each participating bank electronically, or by fax, within one hour after images have been received from CASH. Delivery of statements signifies that settlement for same day transactions is complete and final for the current day.

E. Paying Bank/Branch Processes

- 1. Receipt of incoming image files for payment
 - a. Paying banks/branches are to validate the images as if they were cheques and determine when they are suitable for payment.
 - b. Images suitable for payment should be posted to their respective account immediately.

- Cheque images must be validated to assure that an image of the original cheque has not already been presented for payment. If the cheque has already been paid the image is to be returned with the appropriate reason for nonpayment (e.g. duplicate copy, showing the original identification number of the presented image).
 - c. The amount of the images being collected should be recorded as per the accounting policies of the bank and posted at the proper time on its books of record.
 - d. Each participating bank is to reconcile their settlement statement and notify their respective Head Office of any discrepancies on a daily basis.
 - e. Discrepancies not reported within seven (7) business days will no longer be considered a discrepancy, but will require an accounting adjustment to the over and short account on the books of the paying bank.
2. Non Payment of Images (items) by the Paying Bank
- a. Images not suitable for payment will be placed in a return file to be sent back to the Bank Service Centre in the morning of the next business day based on the time shown in **Appendix 1**.
 - i. If there are no images presented, then there will be no returns for the day and the paying bank shall notify the Bank Service as such.
 - b. The information of the unpaid item will be forwarded to the Bank Service Centre by any electronic form in the Return Clearing Form shown on (**Appendix 6**). Information being forwarded to the Bank Service Centre shall consist of the unique identification code (sequence number) of the image, the amount, cheque number, account number, date processed, and reason for return. If more than one item is being returned, then there will be a listing showing the total value of all items being returned.
 - c. In returning an item, the returning (paying) bank must identify the particular reason for return. Valid reasons are listed in **Appendix 5**.
 - d. The returning bank must prepare the proper controls and amounts for the return file.
 - e. The returning bank will notify the Bank Service Centre of the number of instruments being returned and their total amount, each day by the time shown in **Appendix 1**.
 - i. The returning Bank should notify the Bank Service Centre even if there are no returns to be processed on a daily basis by phone or fax at the same specified time.
 - f. In the event of items being returned that are Nu. 5000 or greater, the paying bank shall directly notify the collecting bank of the item not being paid by e-mail, fax or phone (preferable). This action will allow the collecting bank to place a hold on the depositor's funds expected from that deposited cheque forwarded for collection as an image.

F. Return processing at the Bank Service Centre representing the Paying Bank

- 1. Returns will be received by electronic means from collecting bank/branches at the Bank Service Centre before the close off time as shown in **Appendix 1**.
 - i. The Bank Service Centre shall notify CASH by e-mail (preferable), fax or phone, if there are no returns to be submitted by the Bank Service Centre for a given business day.

2. The Bank Service Centre shall validate the receipt of returns with the notification log book, noting the time and method of receipt and any differences in amounts or number of images.
3. Returns being received by fax will be retrieved from the electronic paying bank file and marked as being returned for the first time. (e.g. first return).
4. The Bank Service Centre shall identify the collecting bank number from the image file maintained at the Bank Service Centre and create a Return file based on the MICR and accounting data.
5. The Bank Service Centre shall determine if the image has been returned once before.
 - a. When the image has not been returned once before, the Bank Service Centre shall mark the image as being returned for the first time.
6. On a subsequent occurrence of the image being returned, the Bank Service Centre shall note that the image being returned is no longer eligible for collection through BECH.
7. The Bank Service Centre shall create a return file and determine the number of items and the total value of the items being returned. Procedures at the Bank Service Centre shall verify the accuracy of the return file.
8. The Bank Service Centre shall transmit the file to the CASH for processing before the time shown in **Appendix 1**.
9. The return file will be processed separately from forward collection images.
10. The accounting entries will be shown separately for each bank to facilitate reconciliation processes.
11. The Bank Service Centre shall notify CASH on a daily basis whether there will be a return file for processing or not. CASH shall record the receipt of this notification.

G. Return Clearing and Settlement at the CASH

1. Clearing of return files
 - a. The return files shall be received within the time frame as shown in **Appendix 1**. After the CASH operator has determined all return files have been received from each Bank Service Centre, the return processing shall commence from a manual action. All subsequent processes shall be automated and only exceptions will require operator intervention.
 - i. When an Bank Service Centre has not forwarded a file within fifteen (15) minutes of the close off-hour as shown in **Appendix 1**, the operator shall investigate before beginning the automated process and note the action taken in a log book.
 - b. The return files shall be validated with the control numbers to ensure all images were received, the total amount of all returned items is accurate, the bank identification numbers are valid, and nothing was changed during the transmission process.
 - c. The return files shall be sorted into collecting bank order.

- d. The return files shall be forwarded to the appropriate Bank Service Centre where the original collecting bank is served within 15 minutes after the close off time.
 - i. If there are no return files for a Bank Service Centre, the Bank Service Centre operator shall inform CASH of this situation/communicate via electronic means.
- e. The return files shall have appropriate controls for validation purposes.
- f. If the clearing and settlement be delayed by RMA for more than 60 minutes, then CASH shall notify all participants by a broadcast message through the computer system of the delay and the reason for the delay.

2. Settlement of Returned Files

- a. Settlement figures for return items shall be calculated on a net basis for each bank participating in the exchange of non-payment of images.
- b. The net settlement figure for all banks shall be forwarded to RMA for posting to accounts of the participating banks.
- c. A statement of activity covering returned items shall be sent to each participating bank.
- d. Presentation time shall be taken into consideration when calculating the net settlement and the day it is to be posted.
- e. Settlement information shall be forwarded to each Bank Service Centre.

H. Return Processing at the Bank Service Centre Representing the Original Collecting Bank

- 1. The Bank Service Centre shall retrieve the image from its file and forward the returned Images to the original collecting bank indicated on the image electronically, or by fax within 30 minutes after receipt from the CASH.
- 2. The Bank Service Centre shall forward the settlement information to the collecting bank/branch in the same manner and time frame as the images were forwarded.
 - a. If there is a communications failure, the Bank Service Centre shall telephonically inform the collecting bank/branch of the images that are being returned and the reason for return.
 - b. Each collecting bank/branch served by the Bank Service Centre will be notified that the return clearing and settlement has been completed, even if there are no returns for a given office.
- 3. The Bank Service Centre shall retain a computer file of the returned Images by each collecting bank/branch.
- 4. The Bank Service Centre shall notify all other bank/branch in its region that the return processing cycle has been completed for that business day.

I. Return Processing at the Original Collecting Bank

1. The collecting bank shall review the return (unpaid) image and determine whether to forward the image a second time for collection.
2. The collecting bank shall make the appropriate accounting entries according to its accounting policies.
3. When it is decided not to return the image, the bank must reverse any funds from the depositor's account and follow its internal accounting policies for non-payment of transactions.
 - a. Images being returned because of insufficient funds or incorrect paying bank are the only images acceptable for a second clearing attempt.
4. When a returned image is eligible to be presented a second time, the image shall be forwarded to the Bank Service Centre noting the relevant information so that the Bank Service Centre may retrieve the image from its files.
 - a. The collecting bank/branch will notify the Bank Service Centre of the presentment and the expected time of delivery.
 - b. Cheques ineligible for collection through BECH shall be returned in a prompt manner (less than two days) to the depositor with the reason for the cheque being ineligible for collection through BECH.
5. The Collecting bank/branch shall retrieve the stored cheques that are no longer eligible for cheque clearing and settlement through BECH and return them to the original collecting bank along with a listing and related values.

J. Forward Presentment a Second time at the Bank Service Centre

1. The Bank Service Centre shall receive incoming cheque image that bears the return stamp, for second presentment from collecting bank/branch.
2. After validation, the Bank Service Centre shall transmit images for clearing and settlement to CASH.
3. The Bank Service Centre shall note the amount for each bank/branch making a second deposit. However, the image will not be presented separately to the CASH or the paying bank office.

K. Settlement Statements for Bank Reconciliation

1. Postings to bank accounts at RMA will be on a net basis by bank.

2. A statement of activity for each bank shall be provided to show the calculation of the net figure. Information shown will be:
 - a. Name of bank, bank identification number, date, and Bank Service Centre service area.
 - b. Each forward presentment amount (credit as shown on the delivery statement).
 - c. Any adjusting entries (e.g., amount for over cheques, incorrect delivery statement amounts, missing cheques, etc.).
 - d. Amount to be collected (debit to the paying bank).
 - e. Returned images from paying bank (credit).
 - f. Returned images to collecting bank (debit).
 - g. Any other adjusting entry.
 - h. Net position.

L. Fees

Fees shall be assessed according to the schedule shown in **Appendix 4** and charged daily to each participants current account maintained at RMA. The fees may be changed from time to time by RMA and shall be implemented after adoption by BECH and notification to the participants in BECH using the cheque truncation and image processing services through a revised Appendix 4.

M. Amendments

- a. These rules may be modified by the RMA on and as needed basis. Any member of the BECH may propose a change in the rules. The change must be documented, presented to the BECH for adoption and then given a minimum of sixty (60) days notice to all bank to change procedures to meet the new rule.
- b. Changes in timing schedules may be accomplished without modifying the rules. Implementation time will be sixty (60) days or less depending on the agreement of the participants and a notification through a revised **Appendix 1**.
- c. New offices may be added as authorized by RMA and the BECH. The bank identification number may be assigned as needed by the officer-in-charge of the CASH and shall become effective within thirty (30) days of notification through an amendment to Appendix 2 and distributed to all participants.
- d. Changes in record retention times will require the approval of BECH for the Bank Service Centre and the CASH. Implementation will be immediate upon approval by notification through a revised Appendix 3.

Appendix 1.	Hours of Operations
Appendix 2	Bank Identification (code) numbers
Appendix 3	Record Retention Requirements
Appendix 4	Schedule of Fees
Appendix 5	Reasons for Return Cheques
Appendix 6	Return Clearing Form

Appendix 1

BECH Hours of Operation

Receipt of cheques images for truncation Bank Service Centre	12:00 noon
Delivery to CASH for clearing and settlement	2:00 P.M.
Receipt at Bank Service Centre for presentation	3:00 P.M.
Presentation to paying banks	3:30 P.M.
Final settlement posted on RMA books	4:00 P.M.
Return cheques information to Bank Service Centre	10:00 A.M.
Delivery of return files to CASH, Thimphu	11:00 A.M.
Receipt of return file at Bank Service Centre	11:15 A.M.
Presentation of returned information to Collecting banks	11:30 A.M.
Return settlement on RMA books	4:00 P.M.

Appendix 2

Bank Identification (Code) Numbers, Cheque Digit and Settlement Time

The MICR Bank Identification Number consists of four elements: a two-digit code to identify the clearing house, a three digit code to identify the bank, a three digit code to identify the branch, and a cheque digit. In total there will be nine digits for the Bank Identification Number. The coding scheme is shown below:

List of Bank MICR Codes

The bank code is a three-digit code allotted to each bank as below:

Bank Name	Code
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Royal Monetary Authority	010
Bank of Bhutan	020
Bhutan National Bank	030
Druk PNB Bank	040
T - Bank	050
Bhutan Development Bank	060

The branch code is a three-digit code. Following is the list of bank branch MICR Codes with the clearing house and bank codes. The cheque digit is shown separately.

Bank Branch Name (Royal Monetary Authority)	Code	Cheque Digit	Transit Time (Days)
Royal Monetary Authority of Bhutan	10010001	7	0

Sln o.	Bank Branch Name (Bank of Bhutan)	Code	Bank Code	Branch Code	Cheque Digit	Overview
	Thimphu:					
1	Bank of Bhutan (Thimphu) Branch	10	020	001	4	100200014
2	Bank of Bhutan (Thimphu) City Branch	10	020	002	7	100200027
3	Bank of Bhutan(Thimphu) Mothithang Branch	10	020	003	0	100200030
4	Bank of Bhutan, Paro Branch	10	020	004	3	100200043
5	Bank of Bhutan, Haa Branch	10	020	005	6	100200056
6	Bank of Bhutan, Wangdue Branch	10	020	006	9	100200069
7	Bank of Bhutan, Punakha Branch	10	020	007	2	100200072
8	Bank of Bhutan, Gasa Branch	10	020	008	5	100200085
	Phuentsholing:					
9	Bank of Bhutan(P/Ling) Main Branch	20	020	009	5	200200095
10	Bank of Bhutan(P/Ling) City Branch	20	020	010	5	200200105
11	Bank of Bhutan, Samtse Branch	20	020	011	8	200200118
12	Bank of Bhutan, Tsimasham Branch	20	020	012	1	200200121
13	Bank of Bhutan, Gomtu Branch	20	020	027	3	200200273
14	Bank of Bhutan, Gedu Branch	20	020	028	6	200200286
	Gelephu:					

Sln o.	Bank Branch Name (Bank of Bhutan)	Code	Bank Code	Branch Code	Cheque Digit	Overview
15	Bank of Bhutan, Gelephu Branch	30	020	013	1	300200131
16	Bank of Bhutan, Sarpang Branch	30	020	014	4	300200144
17	Bank of Bhutan, Dampchu Branch	30	020	015	7	300200157
18	Bank of Bhutan, Zhemgang Branch	30	020	016	0	300200160
19	Bank of Bhutan, Trongsa Branch	30	020	017	3	300200173
20	Bank of Bhutan, Dagana Branch	30	020	018	6	300200186
	Samdrup Jongkhar:					
21	Bank of Bhutan, S/Jongkhar Branch	40	020	019	6	400200196
22	Bank of Bhutan, Deothang Branch	40	020	020	6	400200206
23	Bank of Bhutan, P/Gatsel Branch	40	020	021	9	400200219
	Mongar:					
24	Bank of Bhutan, Mongar Branch	50	020	022	9	500200229
25	Bank of Bhutan, Bumthang Branch	50	020	023	2	500200232
26	Bank of Bhutan, Trashigang Branch	50	020	024	5	500200245
27	Bank of Bhutan, Lhuntse Branch	50	020	025	8	500200258
28	Bank of Bhutan, T/Yantse Branch	50	020	026	1	500200261
29	Bank of Bhutan, Nganglam Branch	50	020	031	3	500200313

S/I no.	Bank Branch Name (Bank of Bhutan)	Code	Bank Code	Branch Code	Cheque Digit	Overview
	Thimphu:					
1	Bhutan National Bank (Thimphu) Main Branch	10	030	001	1	100300011
2	Bhutan National Bank, Paro Branch	10	030	004	0	100300040
3	Bhutan National Bank, Wangdue Branch	10	030	006	6	100300066
	Phuentsholing:					
4	Bhutan National Bank (P/Ling) Main Branch	20	030	009	2	200300092
5	Bhutan National Bank, Gomtu Branch	20	030	027	0	200300270
6	Bhutan National Bank, Samtse Branch	20	030	011	5	200300115

S/I no.	Bank Branch Name (Bank of Bhutan)	Code	Bank Code	Branch Code	Cheque Digit	Overview
	Gelephu:					
7	Bhutan National Bank, Gelephu Branch	30	030	013	8	300300138
8	Bhutan National Bank, S/Jongkhar Branch	30	030	019	6	300300196
9	Bhutan National Bank, Tsirang Branch	30	030	015	4	300300154
	Mongar:					
10	Bhutan National Bank, Mongar Branch	50	030	021	3	500300213
11	Bhutan National Bank, Trashigang Branch	50	030	024	2	500300242
12	Bhutan National Bank, Bumthang Branch	50	030	023	9	500300239

S/no.	Bank Branch Name (Bank of Bhutan)	Code	Bank Code	Branch Code	Cheque Digit	Overview
	Thimphu:					
1	Druk PNB, Thimphu Branch	10	040	001	8	100400018
2	Druk PNB, Wangdue Branch	10	040	006	3	100400063
3	Druk PNB, Paro Branch	10	040	004	7	100400047
	Phuentsholing:					
4	Druk PNB, Phuentsholing Branch	20	040	009	9	200400099
	Gelephu:					
5	Druk PNB, Gelephu Branch	30	040	013	5	300400135
6	Druk PNB, Trongsa Branch	30	040	017	7	300400177

S/no.	Bank Branch Name (Bank of Bhutan)	Code	Bank Code	Branch Code	Cheque Digit	Overview
	Thimphu:					
1	T-Bank, Thimphu Branch	10	050	001	5	100500015
2	T-Bank, Wangdue Branch	10	050	006	0	100500060

Sln.	Bank Branch Name (Bank of Bhutan)	Code	Bank Code	Branch Code	Cheque Digit	Overview
3	T-Bank, Paro Branch	10	050	004	4	100500044
	Phuentsholing:					
3	T-Bank, Phuentsholing Branch	20	050	009	6	200500096
	Gelephu:					
4	T-Bank, Gelephu Branch	30	050	013	2	300500132
Sln.	Bank Branch Name (BDFCL)	Code	Bank Code	Branch Code	Cheque Digit	Overview
	Thimphu:					
1	BDBL, Thimphu Main Branch	10	060	001	2	100600012
2	BDBL, Thimphu Branch	10	060	002	5	100600025
3	BDBL, Paro Branch	10	060	004	1	100600041
4	BDBL, Haa Branch	10	060	005	4	100600054
5	BDBL, Wangdue Branch	10	060	006	7	100600067
6	BDBL, Punakha Branch	10	060	007	0	100600070
7	BDBL, Gasa Branch	10	060	008	3	100600083
	Phuentsholing:					
8	BDBL, P/ling Branch	20	060	009	3	200600093
9	BDBL, Samtse Branch	20	060	011	6	200600116
10	BDBL, Chukha Branch	20	060	012	9	200600129
11	BDBL, Dorokha Branch	20	060	032	3	200600323
12	BDBL, Lhamoyzingkha Branch	20	060	033	6	200600336
13	BDBL, Sipsu Branch	20	060	035	2	200600352
	Gelephu:					
14	BDBL, Gelephu Branch	30	060	013	9	300600139
15	BDBL, Sarpang Branch	30	060	014	2	300600142
16	BDBL, Tsirang Branch	30	060	015	5	300600155
17	BDBL, Zhemgang Branch	30	060	016	8	300600168
18	BDBL, Trongsa Branch	30	060	017	1	300600171
19	BDBL, Dagana Branch	30	060	018	4	300600184
20	BDBL, S/Jongkhar Branch	30	060	019	7	300600197

Sino.	Bank Branch Name (Bank of Bhutan)	Code	Bank Code	Branch Code	Cheque Digit	Overview
21	BDBL, Panbang Branch	30	060	029	4	300600294
22	BDBL, Jomotshangkha Branch	30	060	034	6	300600346
23	BDBL, Dagapela Branch	30	060	036	2	300600362
24	BDBL, Samdrupcholing Branch	30	060	037	5	300600375
	Mongar:					
25	BDBL, Pemagatsel Branch	50	060	021	4	500600214
26	BDBL, Mongar Branch	50	060	022	7	500600227
27	BDBL, Bumthang Branch	50	060	023	0	500600230
28	BDBL, Trashigang Branch	50	060	024	3	500600243
29	BDBL, Lhuntse Branch	50	060	025	6	500600256
30	BDBL, T/Yantse Branch	50	060	026	9	500600269
31	BDBL, Wamrong Branch	50	060	030	8	500600308
32	BDBL, Nganglam Branch	50	060	031	1	500600311
33	BDBL, Yadi Branch	50	060	038	2	500600382

Calculation of the cheque digit for the Bank Identification Number.

The cheque digit is calculated by applying a formula to the bank number. Each digit in the bank number code is multiplied by 3, 7, or 1. The dashes have no numeric value and thus are not used in the development of the cheque digit. Once the multiplication has been completed, the individual results are added together from left to right. The sum of the numbers is then subtracted from 220. The remainder in the unit's position is the cheque digit. For example:

$$\begin{array}{r}
 \text{Bank code} \qquad \qquad 5 \ 0 \ 0 \ 3 \ 0 \ 0 \ 2 \ 4 \\
 \text{Multiplied by:} \qquad \underline{3 \ 7 \ 1 \ 3 \ 7 \ 1 \ 3 \ 7} \\
 \qquad \qquad \qquad \qquad \qquad 15 \ +0 \ +0 \ +9 \ +0 \ +0 \ +6 \ +28 = 58. \\
 \qquad \qquad \qquad \qquad \qquad 220-58=162
 \end{array}$$

Cheque digit is equal to two (2), the number in the unit's location after subtraction.

Appendix 3

Record Retention Requirements

1. Collecting Bank Office
 - a. Delivery Statements Six months
 - b. Settlement Statements As per internal policies or three years

2	Bank Service Centre	
	a. Delivery Statements	Six months
	b. Batch Header documents	Two months
	c. Original Cheques	As prescribed by law or three years
	d. Computer image files	One year
3	CASH	
	c. Computer image files	Six years
	d. Settlement statements files	Six years
	e. Backup files at relocation site	Six years
4	RMA	
	a. Net settlement statements	As per internal policies or five years
5.	Paying Bank Office	
	a. Image Files	As per internal policies or six years
	b. RMA Statements	As per internal policies or three years
	c. CASH Activity statements	As per internal policies or three years

Appendix 4

Schedule of Fees

1.	Presentment of Cheques	Nil
2.	Returned image for insufficient funds	Nu 300
3.	Returned for no endorsement by the bank	Nu 100
4.	Late delivery of Delivery Statement	Nu 100
5.	Failure to notify Bank Service Centre of activity	Nu 100
6.	Second Presentment	Nu Nil
7.	Presentment of Post Dated cheques	Nu 100
8.	Presentment of stale dated cheques	Nu 100
9.	Returned due to other reasons	Nu 100
	- signature missing	
	- Words and figure differ	

- Alterations without drawer's full signature
- Not arranged for/Incorrect payee bank
- Any other.

To facilitate the collection of charges, maintenance of minimum balance for accounts with cheque facility is being reinstated. The current minimum balance the banks must impose on accounts with cheque facility is Nu. 1,000.00 which may be revised by RMA as required.

While the banks may recover the charges for cheques returned due to insufficient balance, the banks may not pass on other charges (2 and 7 above) to account holders.

The following fees for retrieval services will be charged to the Requesting Organization.

Retrieval of cheque (within 30 days of presentment)	Nu 20
Retrieval of cheque (over 30 days of presentment)	Nu 50
Retrieval of cheque (over one year of presentment)	Nu 100
Copy of image settled within 30 days	Nu 5
Copy of image settled over 30 days	Nu 20

A Requesting Organization is an office that has legal authority to have access to original cheque documents.

Appendix 5

Reasons for Return Cheques

1. Insufficient funds
2. Words and figure differ/missing
3. Drawers signature: differs/ missing/incomplete
4. Alteration requires drawer's full signature
5. Effects not clear: present again
6. Joint signature missing
7. Account closed/deceased depositor
8. Invalid account no./no account/different account
9. Account blocked
10. Not arranged for/Incorrect payee bank
11. Invalid date/out of date
12. Stopped payment /cancelled cheque
13. Exceeds arrangements
14. Post dated (over six month old) cheque
15. Endorsement missing/incomplete/irregular
16. Cheque belonging to different a/c.
17. Mutilated cheque /forged amount
18. Others

Return Clearing Form

Payee Bank Name.....
Payee Branch Name.....
Payee Bank Branch Code.....

Date: _____

Check Sequence No	Collecting Bank and Branch Name	Check Processing Date	Cheque No	Account No	Amount (Nu)	Return Reasons
Total						

Prepared by: Signature
Name

Procedures at the Bank Service Centre and Collecting Bank/Branch

Introduction

The following are procedures to be used for each Bank Service Centre and collecting bank/branch in the Bhutan Electronic Clearing House (BECH) for controlling, entering, verifying, proving, adjusting, recording, truncating, retrieving, transmitting, and receiving cheques and cheque images. Many of the features discussed may be part of an automated process while others are mostly manual that will require a high degree of accuracy. The more accurate the cheque information is at the point of entry, the better the performance of products and services throughout the entire collection process. The procedures begin with receipt of cheques at the Bank Service Centre, the conversion to an image, to the presentation of the image at the Paying Bank and the settlement of funds between participating banks. These procedures closely follow the NCR requirements to enter data into the system, verify the accuracy of the data, assuring integrity of the data, processing of the data by the system, presentation of the data to the Paying Bank and for subsequent retrieval purposes for whatever the reason.

These procedures may be modified from time to time based upon change in conditions, the introduction of more efficient approaches, the usefulness of the procedures no longer exists or the procedures are not meeting their intended purpose. The procedures may be customized for an each Bank Service Centre based upon unique conditions at that particular Bank Service Centre. All changes shall require the approval of the Officer in Charge of CASH and may be implemented within ten (10) days from notification of approval.

1. Control of Delivery Statements at the Collecting bank/branch.

- a. Each Collecting bank/branch will positively notify (by phone, fax or e-mail) the Bank Service Centre on a daily basis concerning the total amount (value) and total number of cheques it will be presenting for clearing and settlement and the expected arrival date and time at the Bank Service Centre.
 - i. Zero amounts and quantities are acceptable and expected if no cheques are being presented for clearing, and it will signify that the collecting bank will not be submitting a delivery statement for the particular business day.
 - ii. The Collecting bank/branch shall maintain a log book to record the following details for each business day:

- The collecting bank identification number,
 - The number of cheques to be cleared,
 - The method of delivery, and
 - The total amount (value) of the cheques to be presented for credit.
 - The time and date of receipt at the Collecting Bank/Branch
- b. Upon preparation of a delivery statement with cheques for clearing, the Collecting Bank/Branch data entry person shall validate and initiate the scanning process and forward electronic file containing the images of Delivery statement, Batch header and cheques to Bank Service Centre. Verification will be with the delivery statement for the given business day.

2. Control of Delivery Statements at the Collecting bank/branch.

- a. The Bank Service Centre will verify the accuracy of the delivery statement data with the information previously received from Collecting bank/branch in the log and will identify any discrepancies in the collecting bank number, the total number of cheques and the total value of the cheques.
- i. When there are no discrepancies, processing may continue as described in (b) below.
 - ii. When there are discrepancies, the information with the delivery statement will take precedence.
 - iii. When there are discrepancies in the total amount (value) of the cheques, then the Bank Service Centre will "sight" verify the amount on the delivery statement for accuracy.
 - v. When the cheques from the collecting bank arrive after the close off hours (late), they will be held in abeyance for processing the next business day. The collecting bank/branch will be advised of the late arrival.

3. Control of Delivery Statements at the Collecting bank/branch.

- The Bank Service Centre will verify the accuracy of the image data with the information previously received from Collecting bank/branch in the log and will identify any discrepancies in the collecting bank number, the total number of cheques and the total value of the cheques.

- After the data being correctly verified from all delivery statements, and compared with data from the notification file, the Bank Service Centre will identify any collecting bank/branch that:
 - i. Notified the Collecting bank/branch about sending a delivery statement and the Bank Service Centre has not received a submission. An investigation will commence and a note entered in the log book as to why there was no delivery statement.
 - ii. The Bank Service Centre received a delivery statement, but had no notification from the collecting bank office. An investigation will commence to determine why, with a note inserted into the log book for the reason.
 - iii. A summary report of discrepancies between data image file and the Notification file shall be prepared for the Bank Service Centre supervisor and statistical reporting.
 - iv. The Bank Service Centre supervisor shall notify each Collecting Bank of their respective discrepancies on a daily basis and note the time of day the report was made and the person with whom the issues were discussed.

2. Processing of Cheques within a Delivery Statement at the Collecting Bank/Branch

- a. The data entry person shall enter the information such as delivery statement including the collecting bank office number, the number of batches and the total value of all the cheques included with the delivery statement (the amount the collecting bank office is expecting for credit).
- b. Within a delivery statement there may be one or more batches and each batch will be processed and subsequently verified individually.
- c. All batches within a delivery statement shall be processed by the same data entry person (maker in NCR terms) and will be verified by the same verification person (checker in NCR's term), who will be a different individual from the data entry person.
- d. A data entry person shall process all the cheques associated with one delivery statement whether there is only one batch or several batches.

3. Processing of Batches within a Delivery Statement at the Collecting Bank/Branch.

- a. The data entry person shall enter the total number of cheques in a batch and the total value of the batch to be processed from the Batch Header document.
- b. The data entry person will enter each cheque within a batch through the scanner, one document at a time.
- c. The system will place the collecting bank identification number (sequence number) with the image, to facilitate return (unpaid images) process handling.
- d. For each cheque, the amount will be keyed (after all cheques for a given Delivery Statement have been scanned) as a separate task.
- e. The data entry person will validate that there is a valid image scanned from both sides of the cheque that meets the criteria for image processing.
 - i. When the image is not valid, the data entry person will note in a log book the cheque identity and the amount recording that the document is being returned and the reason why it is not eligible for image collection,
 - ii. Appropriate accounting entries impacting the collecting bank office will be developed for control purposes,
 - iii. No record of the invalid image will remain in the computer file, and
 - iv. The cheque will be placed in a file for return to the customer.
- f. For each cheque, the system will authenticate that the paying bank office identification number is valid.
 - i. When the paying bank office identification number is invalid, the data entry person will remove the cheque from the batch, initiate appropriate accounting adjustment entries and record that the cheque is ineligible for collection. The cheque will be placed in a file for return to the customer.
 - ii. The cheque will be physically returned to the collecting bank office with the appropriate information, and the reason for ineligibility for collection.
 - iii. The image will be removed from the computer file.
- g. Once all the cheques from a batch have been scanned and the amounts have been entered into the system as a separate task, the system will calculate any differences

between the aggregate value of the cheques within each batch and the amount entered from the batch header document.

- h. Differences in the total amount of the batch and the total number of cheques in the batch will not be reflected until the batch has been verified (see 4 below) and ready for the proof process described below.
 - 1. The data entry person will continue to process other batches in the delivery statement until all the cheques included with the delivery statement have been scanned and processed as described in a, b, c, d, e, f, and g above.
- i. After all cheques in batches from a delivery statement have been scanned, the system will calculate any differences from the control amounts entered from the delivery statement.
- j. Differences as to the total number of cheques and total amount of the cheques will not be reflected until the delivery statement has been verified (see 4 below) and ready for the proof process described below.

4. Verification of Delivery Statement and Batches at the Collecting Bank/Branch (Batch Balancing)

- a. A verification person, other than the data entry person, shall sight verify the data elements keyed by the data entry person from the source cheques.
- b. The verification person shall match the amounts by sight from the original cheques and identify any differences in amounts, cheque by cheque and batch by batch.
 - i. When there are no differences in amounts then processing will continue to forward the images to Bank Service Centre. However, if there are differences below,
 - 1. When there are differences in the amounts, then the data entry person must correct the files and match the original cheques.
 - 2. Once all the cheque amounts are equal (i.e. both the amounts entered by the data entry person and the amounts verified by the verification person) on an image-by-image basis, the image forwarding process may begin.
- c. Once all procedure for the delivery statements is complete the paper cheques will be set aside for physical filing and subsequent retrieval as demanded.
 - i. The cheques will be retained for the proper retention period as required by laws of the Kingdom of Bhutan or the BECH rules.

- ii. Collecting Bank/Branch staff shall retrieve cheques on demand and with proper authorization.
- iii. Upon reaching the completion of the retention period, the cheques shall be destroyed in a secure manner.

5. Proving Delivery Statement and Batch Values at the Collecting Bank/Branch (Super Balancing)

- a. The system will use the data entry file for validating all control values entered from delivery statements and batch header documents.
- b. For each delivery statement the number of batches scanned must match the number of batches entered.
 - i. When the total number of batches scanned matches the control number, then there shall be a validation of the amount discussed in (c) below on a batch by batch basis.
 - ii. When the total number of batches is different, the identity of the missing, or over, batches must be determined for reconciliation purposes.
 - iii. A description of what is missing (or what is over [extra]) must be described and an amount identified to adjust the total being collected.
 - iv. The computer system will automatically print the advice of adjustment for advising the collecting bank based on the information provided by the reconciliation person.
 - v. The collecting bank must be made aware of the situation through an advice. Amount validation may begin as described in (c) below.
- c. For each batch in a delivery statement the total amount must be compared to the control amount for any difference. If no differences, then the next batch in a Delivery Statement will be validated. Once all batches have been validated and the control amount from the delivery statement is "in proof and validated" the image file will become ready for transmission to the Bank Service Centre. The computer system will mark the file for release.
 - i. When a batch is not "in proof" then the differences must be located through missing cheques, over (extra) cheques, cheques not qualifying for imaging, or improper amount being assigned to a cheque by the collecting bank or the Bank Service Centre.
 - 1. The reconciliation person may review batch amounts to facilitate locating the discrepancy.
 - 2. For any adjusting amount, an accounting entry must be made so that it will adjust the collecting bank's delivery statement amount for credit.

3. The original total amount on the delivery statement will not be changed, but the value will be changed through adjusting entries and the computer will print advices based on information provided by the reconciliation person.
 4. The advice will show the original amount, the actual amount, the adjustment amount and the cause of the adjustment.
 5. The Collecting Bank/Branch shall review the adjusting accounting advice and note approval.
 6. Any decision to process the document will follow the procedures previously noted above.
 7. Accounting advices will be delivered to the collecting bank along with the net amount to be credited to the account.
- ii. Once "in proof" (both the delivery statement and the related batches) the image file with its proper total of the number of images and the total value of all images will be ready for transmitting to the Bank Service Centre.

7. Preparation of image files for transmission from the Bank Service Centre to the CASH.

- a. After the proving of all delivery statements and converting all eligible cheques into images, the system will prepare the various delivery statement files for transmission to the Clearing and Settlement House (CASH).
- b. The file will have:
 - i. The total value of images in the file for control purposes,
 - ii. The total number of images, and
 - iii. The collecting bank identification number.
- c. The system will prepare a report listing each delivery statement:
 - i. Identifying the collecting bank identification number, the number of images to be cleared and the total amount of the images to be settled.
 - ii. The total number of converted images and the total value of those cheques.
 - iii. Adjusting entries identified by Bank Service Centre staff by Collecting Bank/Branch, and
 - iv. The net amount to be credited for each collecting bank.
- d. The report will show Bank Service Centre totals for:
 - i. The number of images to be cleared, and
 - ii. The gross amount (value) of images to be settled.
- e. The file shall contain appropriate control features to identify any shortcoming that might occur during transmission.

- f. Each Bank Service Centre shall notify the CASH when images and has an "in proof" file ready for transmission. The notification may be sent by e-mail (preferable), fax or phone.
- g. The file(s) shall be released for transmission by the appropriate time as reflected in the BECH clearing house rules. The system may transmit the image file in its entirety or in segments as best handled by the computer system and the related communications capability.

8. Clearing and Settlement House (CASH)

- a. All procedures at the CASH shall be automated, after the operator has manually started the process. The operator must assure that all Bank Service Centre files have been received prior to starting the process.
- b. If within 15 minutes after the BECH close off hour, each file from each Bank Service Centre has not been received the operator to commence an investigation.
 - i. The operator will contact the Bank Service Centre in question and determine why the file has not been sent if there has been no notification of a problem.
 - ii. The operator shall note the findings in a computer file and advise the CASH Officer in Charge of the situation.
 - iii. Management of BECH shall decide whether to commence clearing and settlement, or delay clearing and settlement and for how long based on received information.
 - iv. When there is to be a significant delay (over 60 minutes) the decision to defer processing will be escalated to RMA management and senior management at the affected banks.
- c. The CASH will validate each Bank Service Centre file to assure that the number of individual images and the total value of individual images are the same as the control totals forwarded with the file.
 - i. When there are differences, the CASH will request a retransmission of the file to assure there are no communication defects.
 - ii. Upon receiving a new file, the same validation processes shall be made and if no discrepancies are present, then processing will continue as described below.
 - iii. When the problem persists for more than five iterations, the computer system will alert the operator to request technical assistance and note there will be a delay in the clearing and settlement process.
- d. Once the clearing and settlement process begins, after all Bank Service Centre files have been received, and by operator intervention, the system will validate that the Paying Bank and Collecting Bank identification numbers are valid.
 - i. When a bank identification number is invalid, an exception file will be prepared by the system,

- ii. The affected images shall become ineligible for clearing and settlement,
 - iii. Adjusting entries to reduce credits will be developed, and
 - iv. The separate file of ineligible images and related entries will be returned to the appropriate submitting Bank Service Centre where the advice(s) will be printed for notification to the Collecting Bank(s).
- e. The system will calculate credits for each collecting bank.
 - f. The system will sort the images into paying bank sequence.
 - g. The system will arrange paying bank images by Bank Service Centre and develop files for transmission.
 - h. The system will calculate the debit amounts for each paying bank for settlement.
 - i. The system will calculate the net settlement amounts for each participating bank, normally on a same day basis. However;
 - j. The CASH will begin the transmission of image files and settlement amounts (debits, credits and net amounts) to the Bank Service Centre for distribution to paying bank.
 - i. The CASH will send the net settlement file to RMA for posting to the participating bank's current account.
 - ii. RMA will post deferred amounts according to the day the amounts will become available.
 - iii. When paying bank's head office current account(s) lack sufficient funds for same day settlement, RMA will follow, with the help of the banks, alternative procedures to complete the settlement.
 - k. The system will develop the appropriate status reports to advise management of the day's workload and related statistics.
 - l. The system will complete its end of day processes and create appropriate backup files for transmission to the alternate operation site.

9. Delivering images from the CASH to the Bank Service Centre for the Paying Bank/Branch

- a. If there are no images for presentment at a given Bank Service Centre, the Bank Service Centre operator will notify the CASH of this situation.
- b. The Bank Service Centre computer system will validate incoming files to assure there are no communication errors and that the individual entries equal the control total amounts.
 - i. When there are errors the Bank Service Centre computer will request a retransmission of the file from the CASH to seek an accurate file.
 - ii. After multiple tries, the Bank Service Centre operator will request technical assistance to solve the problem before processing can continue as described in (c) below.

- c. The computer system at the Bank Service Centre will prepare each file received from the CASH for delivering images to the paying bank by the predetermined method (e-mail, or fax or hard copy in the event of extended equipment failures).
 - i. The Bank Service Centre operator will notify involved paying banks that the clearing and settlement has been completed.
 - ii. If the computer system is unable to deliver images to the fax at the paying bank, it will advise the operator of the situation and prepare hard copy images for presentment.
- d. Settlement information and adjusting entries will be forwarded with each file of images to be paid by each participating bank and to those collecting bank that have no images being presented for payment.
- e. Deferred settlement amounts will be shown where appropriate.
- f. Summary reports will be printed for Bank Service Centre references purposes.
- g. Bank Service Centre will complete end of day close out procedures and assure relevant reports have been printed.

10. Return Image (items) Processing at the Bank Service Centre Representing the Paying Bank

- a. The paying bank will return data about images not being paid to its respective Bank Service Centre by electronic means. Paying bank not returning any images are to notify their respective Bank Service Centre of this fact by e-mail (preferable) or phone. The Bank Service Centre shall maintain a log of reports by each paying bank on a daily basis.
- b. The e-mail will show the unique identification number of the image, the amount and the reason for return. If there is more than one return item, a total of all return amounts will be shown on the e-mail.
- c. Each item (image) being returned will show the reason for return.
- d. The Bank Service Centre will retrieve the image from the computer file based upon the unique number assigned during the scanning process, which will be shown on the e-mail message and mark the image as being returned along with the reason for return.
- e. The Bank Service Centre will develop a return file for the amount of each item being returned identifying the returning bank (paying bank) that will be credited with funds and the depositing bank (collecting bank) that will be charged (debited) for the return image.
- f. The computer system will validate that the bank identification numbers are valid.
- g. The return person will assure the banks are properly identified and the reason for return is shown. A verification person will validate the return file has been developed correctly and if approved will release the file for transmission to CASH.

- h. When the files have been developed and all returns have been processed, the file will be ready for transmission to the CASH for processing by the time shown in the BECH rules.
- i. The system will prepare a report by returning bank of the number of return items, and the total amount being returned. The report will also show the total number of return items and the total values of all the items being returned for the Bank Service Centre.
- j. The Bank Service Centre will advise the CASH by e-mail (preferable), fax or phone whether or not there will be a return file for the day, the total number of return items and the total value of the returns.
- k. The Bank Service Centre will transmit the return file to the CASH before the return close off hour as noted in the BECH rules.

11. Processing of the Return File at the CASH

- a. The CASH will monitor the system to assure all return item files have been received prior to manually initiating the automated processes. All procedures at the CASH will be automated, but may be overridden by operator intervention.
- b. If within 15 minutes after the return close off hour, the file from each Bank Service Centre has not been received the CASH shall commence an investigation.
 - i. The CASH shall contact the Bank Service Centre in question and determine why the file has not been sent if there has been no notification of a problem or no notice of non-participation for the current business day.
 - ii. The operator shall note the findings in a computer file and advise the CASH Officer in Charge of the situation.
 - iii. RMA will decide on whether to commence the return clearing and settlement, or delay return clearing and settlement and for how long based on received information.
 - iv. When there is to be a significant delay (over 60 minutes) the decision to defer the return processing cycle will be escalated to RMA management and senior management at the affected banks.
- c. Once the CASH begins processing the return files, (either automatically or by operator intervention) it will validate that the total of the individual items and the total of the individual amounts are the same as the control totals.
 - i. When the totals are different, the computer will request a retransmission of the return files from the effected Bank Service Centre and recheck the accuracy of the file.
 - ii. When the situation persists after ten attempts, the system will alert the operator and request technical assistance.
- d. The return clearing and settlement processing procedures will validate that the paying bank and the collecting bank identification numbers are valid.

- i. When a number is invalid, an exception file will be prepared by the system,
 - ii. The affected items will become ineligible for Return clearing and settlement,
 - iii. Adjusting entries to reduce credits will be developed, and
 - iv. The separate file of ineligible returns and related entries will be returned to the appropriate submitting Bank Service Centre for printing and notification to the returning bank.
- e. The system will calculate credits for each returning (paying) bank.
 - f. The system will sort the items into depositing (original collecting) bank sequence.
 - g. The system will arrange depositing (collecting) bank items by Bank Service Centre and develop files for transmission.
 - h. The system will calculate the debit amounts for each depositing (collecting) bank for settlement.
 - i. The system will calculate the net settlement amounts for each participating bank.
 - i. For those depositing bank that are unable to receive returns on the same day (because of known equipment or communications outages), the system will calculate the deferred payment amount and determine the deferred credit amount by returning bank, but include the amount in the overall report to the respective Head Office.
 - ii. These deferred amounts (one day, two days, three days, or more) will be reflected in the settlement numbers returned to the participating banks.
 - j. The CASH will begin the transmission of return files and settlement amounts (debits, credits and net amounts) to the Bank Service Centre for distribution to depositing bank.
 - k. The CASH will send the net settlement file to RMA for posting to the participating banks' current account.
 - i. RMA will post deferred amounts according to the day the amounts will become available.
 - ii. When a participating bank current accounts lack sufficient funds for same day settlement, RMA will follow, with the help of the banks, alternative procedures to complete the settlement.
 - l. The system will develop the appropriate status reports to advise management of the day's return workload and related statistics.

12. Delivering Return items from the CASH to the Bank Service Centre

- a. The CASH will transmit the return item files to the Bank Service Centre as soon as processing has been completed.
 - i. If there are no returns for the Bank Service Centre, CASH will notify the Bank Service Centre of this situation.
- b. The computer system at the Bank Service Centre will validate the return file transmission from the CASH to assure it is "in proof" and received without error.
 - i. When there is an error in transmission, the computer will attempt to correct the error automatically or request a new transmission of the file.

- ii. When there have been ten attempts to receive a proper file, the computer will alert the Bank Service Centre operator and request technical assistance.
- c. The computer system at the Bank Service Centre will prepare each return Item file for delivery to the original collecting (depositing) bank office by retrieving the image from their original presentation file and prepare the file for delivery to a fax, unless there is a significant equipment outage.
 - i. The computer system will notify each bank office in its region by fax that the clearing and settlement for returns has been completed, even if the bank office has received no returns for processing.
 - ii. The computer system will notify the operator if it has been unable to deliver the returns to the appropriate fax machine. In this case a hard copy will be required and the Bank Service Centre operator will telephonically notify the original collecting bank of the return(s).
- d. Settlement information and adjusting entries from the return image process for each participating bank office will be forwarded with the return image file.
- e. The Bank Service Centre will retrieve the original cheque from its files and return the cheque to the original Collecting Bank Office along with the reason for return. For images being returned for insufficient funds, the Bank Service Centre will automatically re-present the cheque a second time following the instruction in 13 below.
- f. Deferred settlement amounts will be shown where appropriate.

13. Second submission of return images at the Bank Service Centre.

- a. The Bank Service Centre will re-present those cheques not paid for insufficient funds one more time. No other resubmissions of return images will be accepted.
- b. The Bank Service Centre will retrieve the original image from its computer file based on the original identification number assigned by the scanning process.
- c. The Bank Service Centre will check the image to determine if it has been resubmitted for payment more than two times (original plus one time).
 - i. When the image has been submitted more than two times, it is ineligible for clearing and will be returned to the Collecting Bank as ineligible for resubmission along with the original cheque.
 - ii. The Bank Service Centre will notify the collecting bank of this action and prepare appropriate adjusting accounting entries.
- d. The Bank Service Centre will mark the image as being submitted for payment a second time.
- e. The Bank Service Centre computer system will place the resubmitted and verified images by bank in a file for transmission to the CASH.
- f. All accounting entries will be shown separately for the collecting bank for reconciliation purposes, but the resubmitted image amounts will be commingled with the images being presented for payment each day and will not show separately in the file sent to the paying bank, but will be marked as a second presentment.

- g. The CASH will not distinguish between first time and second time submission of images for payment to the paying bank.

14. Second Return

- a. A paying bank may return any image for insufficient funds.
- b. The image(s) will be marked uniquely for each time it is returned by the paying bank.
- c. The Bank Service Centre will validate that the image has been returned a second time and is no longer eligible for collection through the clearing system.
- d. The image will be returned by the Bank Service Centre to the CASH for clearing and settlement.
- e. The CASH will return the image to the Bank Service Centre servicing the collecting bank.
- f. The receiving Bank Service Centre will notify the collecting bank by e-mail (preferable), fax or phone about the further ineligibility of the image to be collected through the clearing and settlement system.
- g. The CASH will make the proper accounting entries for the paying and collecting bank through the net settlement system and advise the banks appropriately.

15. Ineligible cheques

- a. All hard copy cheques that have been determined as ineligible for clearing and settlement or returned for account closed, forgery, altered images or any other reason that the document is not to be paid will be returned to the collecting bank by the Bank Service Centre that truncated cheques within two business days after it has been determined that the cheques were not cleared and settled. The computer system should assist in identifying those cheques that were returned and not paid and prepare a listing by collecting bank. The Bank Service Centre will need to retrieve the cheques from the stored file. The computer image filed should be marked accordingly.
- b. The Collecting Bank/Branch will make note of the hard copy cheques being returned and maintain in its files the record of this activity. The computer based images will be removed from the files of paid cheques.

Figure 1: MICR Cheque Sample



Figure 2: Batch Header Document

PRE CODED COLLECTING BANK BATCH HEADER

BANK NAME
BRANCH NAME

BATCH HEADER

DATE _____

BATCH NUMBER

VALUE OF BATCH Nu

NUMBER OF ITEMS IN THE BATCH

PREPARED BY _____ CHECKED BY _____

100200014 555

Bank Sort code check digit Transaction code

Figure 3: Delivery Statement Sample

BANK DELIVERY STATEMENT

BANK NAME
Branch Name

DELIVERY STATEMENT

DATE _____

Total Value of Delivery Statement Nu

Number of Batches in Delivery Statement:

PREPARED BY _____ CHECKED BY _____

100200014 666

Bank Sort code check digit Transaction code