SPEED POST

OPERATION MANUAL

Contents

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FOREWORD

Speed Post is an express product of India Post which offers a fast, reliable and time-bound service to our customers. Since its inception in 1986, Speed Post has witnessed substantial growth year after year and has become a household name across the country.

The Department has embarked upon a major transformational journey in the realm of mail operations through the Mail Network Optimization Project. As part of the project, core mail operations are being streamlined, the current mail network is being optimized and mail handling processes are being standardized. These efforts would also be combined with an effective performance management system. We have started this ambitious exercise with process redesign and network rationalization for Speed Post operations.

The process redesign introduced as part of the project has been documented in the shape of this manual. Each process step in the mail handling value chain of Speed Post operation has been concretely defined in this manual and the activities have been explained with the help of corresponding pictures for easy understanding. This effort also fulfills the need to develop a comprehensive operation manual for Speed Post. Every official associated with Speed Post operations at various levels would find in this manual a valuable reference point for his/her domain of activity.

It gives me immense pleasure in handing over the Speed Post Operation Manual to you. I am sure this effort would go a long way in making Speed Post a product per excellence and also the most preferred choice for our customers.

(RADHIKA DORAISWAMY)

2. Background

2.1. Objective of the manual

Speed Post is the domestic express mail product of Department of Posts. It was introduced in 1986, and provides time-bound and express delivery of letters, documents and parcels across the nation. A Track and Trace facility is available for the customers of Speed Post, through which the customers can track the movement of Speed Post articles from the stage of booking to delivery. India Post also provides International EMS service for 98 countries across the world, which covers International EMS documents and merchandise. Over the last 25 years or so, Speed Post has witnessed a continuous positive growth and has become a trusted express product.

As part of Mail Network Optimisation Project undertaken recently by India Post to streamline core mail operations, processes followed with respect to Speed Post operations have recently been redesigned. While the new processes are already in place at bigger cities, they are being rolled out in relatively smaller cities in a phased manner. Accordingly, an operational manual containing description of each and every activity associated with Speed Post has been prepared.

This operation manual for Speed Post strives to become the reference point and a guidebook for performing Speed Post operations across the country. The existing instructions, with changes wherever required, will be integrated in this manual.

The key aspiration guiding this manual is to ensure that Speed Post service becomes more reliable and consistent. Since an efficient operation constitutes the basis for a reliable product delivery, this manual is centred around operational details to be followed at each process step in the mail handling value chain.

A modular approach has been followed in describing various activities. In the subsequent versions of the manual, customer-service related activities would also be incorporated.

This manual is also designed with an objective to achieve standardisation in the processes across the country. Besides, a detailed description of the performance management system has also been provided, which would become an effective tool for performance monitoring at all levels.

2.2. How the manual has been developed

This manual has been developed on the basis of a process redesign undertaken through scrutiny of the existing Speed Post operational processes combined with on-ground pilot exercise in the six metro cities (Mumbai, New Delhi, Chennai, Kolkata, Bangalore and Hyderabad) by a joint team of India Post and external postal experts. The core principles underlying this manual are as follows:

■ Have complete network perspective: As we know, every individual and each process is critical in making Speed Post a reliable product. But on the same note, only when there is a fully coordinated action keeping in mind the implications of different components of the network, Speed Post service can become truly world-class. Let us think about a clockwork example: each cogwheel is needed to make the watch work, but to ensure that the watch always reflects the correct time, a complex combination and engineering of cogwheels is needed.

■ Involve all key stakeholders: Nobody knows better the art of sorting an article than a sorter himself or herself. A bag opener will know the best whether bags are coming with the right bag labels or not. This is just an example of the role everyone associated with Speed Post operation plays, and how crucial it is to constantly involve everyone at all levels through a constant dialogue process.

■ Use global postal best practices in Indian environment: Needless to say, the best postal practices cannot simply be replicated in the domestic settings without adapting them to the local needs. On the other hand, the objective here is also not re-invent the wheel, but to build on the global postal expertise. Therefore, this manual combines the established procedures followed by the Department with the global expertise in postal operations to create a comprehensive operational guide for Speed Post.

■ Testing the hypothesis in real life situation before prescribing the new processes: This manual is not prepared only on theoretical inputs, but has

been developed after testing of the redesigned processes over a period of three months at multiple locations. In addition, the initial draft versions of the document have been continuously refined based on feedbacks from field units.

■ Modular approach: In developing this manual, it has been constantly kept in consideration that everybody is not involved in performed all activities associated with Speed Post operations. Also, we would require adapting the content of the manual from time to time in order to further improve the processes or to adjust them to the new requirements. Therefore, this manual has been compiled in a modular way, which allows customised use by different sets of officials engaged in Speed Post operations. To give an example, whereas the Directors concerned in the Circle as well as concerned Divisions in the Directorate would need to know, read and use the manual in its fullest detail, a sorting assistant at a SPCC would only require to read and understand the processes relating to his/her tasks. This is not to suggest that you need not go through the entire manual. In fact, it would be useful if everyone involved in Speed Post operation goes through the entire content once to develop a better understanding of the entire network. However, on the shop floor, as a day-to-day reference document, one can just refer to the specific pages.

In order to further improve the quality of this manual, suggestions and feedback are welcome from all quarters.

3. Guide to the Manual

3.1. Structure of the manual

The Speed Post manual follows a modular approach and covers four core components of Speed Post operations:

■ **Network topology:** This component is focused around the question as to how the Speed Post network should be established as far as its "skeleton" is concerned. The manual provides answers to three key questions: (1) How should the hub and spoke system of Speed Post be structured, (2) How many hubs and spokes should be operated across the country, and (3) How many hubs and spokes should be operated within a city? Borrowing again from the clockwork example, the manual shall provide the answer on how many cogwheels this watch or machinery should consist of to make it work precisely and consistently and what size and form the different cogwheels should have.

■ **Processes within facilities:** Under this section, the manual seeks to provide clear and unambiguous instructions and guidelines on how to handle Speed Post articles at each stage of processing- from booking to delivery. The main focus is on standardisation, and the processes to be followed are described in detail for each activity needed. These processes will be mandatory to follow across the country and would form the basis for a reliable Speed Post handling mechanism. Each process would have to be followed exactly as described in the manual and would be replicable across the country while at the same time taking into account local needs for adaptation (e.g., the layout of a SPCC). Drawing from the clockwork example, each cogwheel would become fully deployable and functional across all locations.

■ **Network schedule:** In order to enable next day delivery for the maximum number of Speed Post articles and ensure maximum reliability of Speed Post

processing and delivery, all components of the network (e.g., POs, SPCCs, TMOs, MMSs) have to be brought together for working jointly in one integrated network. The key questions the manual will seek to answer here would be (1) which is the best processing time(s) for Speed Post articles, (2) which cut-off times should be followed at each process step and facility and (3) which mode (air, road, rail) and time of connection would allow for maximum reliability and speed of processing of Speed Post articles. Following the clockwork example again, this component seeks to ensure that all cogwheels together work precisely and smoothly.

■ Performance management: In order to facilitate the best possible performance, it has to be ensured that everyone associated with Speed Post operations (1) is fully aware as to how the Speed Post system and its processes function (2) is informed about how well one is performing vis-à-vis the expectations from a particular role set and (3) is equipped to take corrective action in his or her area of activity in case the performance targets are not met. The manual, therefore, provides (1) an approach on how to undertake performance discussions and, (2) explanation and "how-to-use" guide for the Key Performance Indicators (KPIs) which have been developed in order to measure Speed Post performance across the country.

Within each of these four core components, the manual contains and describes in detail the topics listed below. Depending on the component, the granularity of description of the topics varies, e.g., a detailed activity description becomes the most important element in the "Processes within facilities" component.

■ Concept: For each component, the manual provides an explanation of the concept applied. It also explains the logic and reason as to why the particular concept was chosen.

■ Activity description: Standardisation is a key success determinant in an environment under which Speed Post system operates. To ensure standardisation across the country and to also enable precise and unambiguous execution of each single process step, each activity is described in detail – in most cases, the written explanation is supported by pictures (e.g., how to book a Speed Post article at a BPC).

■ Tools/equipment: Some processes and procedures will be supported by either revised equipment (e.g., bag cutters for bag opening) or newly developed tools (e.g., shift planning tool). The manual will provide information on which tools and equipment to use for which activity and also how to use them.

- **Exception handling:** The Speed Post manual focuses primarily on standardisation of processes and procedures. By doing so, the variations in operations observed across the country will be significantly reduced and there will be few exception handling. Nevertheless there will be occasions where exceptions will occur (e.g., bag arriving in SPCC without bag label). The manual will describe the common exceptional situations in Speed Post operations and the ways to handle them.

- **Guidelines:** Together with the need for full standardisation comes the need for corresponding guidelines. Some of these are ground rules which need to be followed across the system (e.g., no bag or Speed Post articles to be kept lying on the floor). Others contain instructions pertaining to each activity which help to improve quality, productivity and speed (e.g., the bag opener at the start of the set/shift to open bigger bags first to ensure minimal idle time for officials deployed for scanning activity).

- **Norms:** Norms for various activities have been revised and detailed in this manual and are provided for each activity (e.g., how many articles to be scanned per hour). These norms should become the basis for manpower planning. In addition, they will be relevant for performance management and for measuring the performance of facilities and the officials deployed therein across the country. The new norms will be subject to constant revision based on qualified observations and test measurements on ground at regular intervals.

While skeleton of the entire manual has been laid down in this version, some of the sections/sub-sections will be populated/expanded in the subsequent versions of the manual.

3.2. How to use the manual

This manual seeks to cover the entire gamut of Speed Post operations. Therefore, every person associated with Speed Post operations in whatever capacity is expected to go through its contents and understand them clearly.

The Speed Post manual shall become the single source of information/ reference document for handling of Speed Post articles. The existing instructions on Speed Post operations have been reviewed and integrated into the manual. Therefore, this manual becomes the most relevant document for all operational issues pertaining to Speed Post. The document will also be supported by additional existing instructions and training materials, e.g., correct use of SpeedNet modules and data entry.

Keeping into account the fact that every official would not require to regularly refer to all aspects of Speed Post operations and would be more often

required to go through the section(s) relevant for his/ her area of activity, the manual has been developed in a modular way to allow most effective and efficient use for each individual depending on his/her roles and responsibilities. The most important stakeholders to read and use the manual, with varying range of use depending upon their role, will be the following:

■ **Mail Business Division and Business Development Directorate:** The manual provides complete operational procedures for Speed Post and, therefore, becomes the most important base for policy formulation as well as for guidelines and instructions to be issued from the Directorate.

■ **Circle Management:** The implementation of the processes described in the manual would be dependent upon the Circle management associated with Speed Post operations. This manual aims at equipping the Circle management with all necessary information and tools to facilitate a smooth implementation of the process redesign for Speed Post operations on ground.

■ **Managers/Assistant Superintendents/Head Sorting Assistants/Supervisors at Speed Post Centres/Speed Post Processing Facilities:** It would be crucial for the leadership and supervisory officials at SPCs to go through the contents of this manual in order to develop a complete understanding of how the network has been redesigned keeping into mind the end-to-end perspective, but at the same time the focus kept around the processes the units/areas of activity they are leading. To give an example, each SPC manager must understand the section on "SPC processes" to be able to supervise and guide his/her staff and at the same time, should also know and have an overview about how Mail Motor Schedules are worked out.

■ **Each official associated with Speed Post operations:** There exists a module in this manual for each role/activity related to Speed Post operations. Each official engaged in Speed Post operations is expected to read and be familiar with all activities taking place in his/her operational unit with special and detailed focus on his/her specific task. For example, each PO counter staff should know how to book a Speed Post article correctly. At the same time, he/she should have an overview of related next steps, i.e., as to when the articles need to get bagged to be included in the scheduled collection rounds from his/her PO to SPC.

4. Operational Processes

4.1. Network topology

The Network topology is about setting the optimal "skeleton" or network structure for Speed Post Operations across the country as well as at each processing location. Concretely, an answer is provided on (1) How many processing centres should be operated within one city, and (2) How many processing hubs should be operated across India?

Whereas question (1) can be dealt on a local level based on instructions given, question (2) has to be answered centrally in the Directorate with an end-to-end network perspective and then vetted in consultation with the circles taking into account operational feasibility.

4.1.1. Optimal number of processing centres within a city

The core concept to be followed here is to ideally have only one Speed Post processing hub per city/location. This processing hub, as a rule, should handle all Speed Post articles, i.e., TD articles, NTD articles and Inbound articles. It should also handle articles of all customers, whether BNPL or cash, or whether retail or corporate customer.

The reasons for having only one processing hub per city/location are obvious. Having only one processing hub allows for a more cost-effective operation, better supervision, and results in lesser number of bags being closed and handled in the Speed Post network. Additionally, higher productivity can be achieved as volume inflows and outflows are larger and more stable over time for a day/shift. Further, as India Post strives for a higher degree of automation in mail processing, concentration of processing centres would become a necessary pre-requisite.

❷ How should BNPL centres/MBCs/BPCs be treated following this logic?

Each BNPL centre/MBC/BPC should have a booking facility and, therefore, can be referred to as a "special booking Post Office" dealing only with corporate customers.[1] Some BNPL centres/MBCs/BPCs also provide a sorting facility, i.e., close direct bags either for post offices (TD) or other NSPCs (NTD)

As a norm, the practice of sorting at BNPL centres/MBCs/BPCs should be stopped. Instead, each of these BNPL centres/MBCs/BPCs will correctly book all articles and only pre-sort them into NTD and TD. In separate bags, these NTD and TD articles should then get transferred to the nearest NSPC and processed there.

However, one exception (to the norm of BNPL centres/MBCs/BPCs restricted only to booking of articles) is allowed: If a BNPL centre/MBC/BPC serves only one or two big customers (definition of a big customer is that on an average, such customer gives more than 5,000 articles per day) with one kind of standardised articles, the decision can be taken by the Circle in consultation with the Directorate (both Mail Business Division and BD Directorate) to keep these volumes separate for processing. In such cases, the preferred option is to co-locate the processing of such mail with the SPCC processing, so that lesser number of bags are closed. Bundles can be closed by the BNPL centre/MBC/BPC to allow for easier handling. Only in the case of severe and irresolvable space constraints, the BNPL centre/MBC/BPC should be kept at a different location. Only in this case, the BNPL centre/MBC/BPC is allowed to close direct bags.

❷ What actions circles have to take here?

■ Provide a detailed overview of all BNPL centres/MBCs/BPCs at each NSPC location. This includes a 3-6 month overview of daily volumes booked per customer.

■ Follow above instructions and discontinue those BNPL centres/MBCs/BPCs as processing hubs, where processing is currently being done. The customer interface, including a booking facility, may be continued. Only back office processing work needs to be transferred to the SPCC processing centre.

■ In case the Circle thinks that one of its BNPL centres/MBCs/BPCs is eligible for the exception laid out above (big customer with regular, standardised volumes), it should send a formal request to Mail Business Division in the

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[1] Refer to section 4.2.5.1 for booking of Speed Post articles in BNPL centres/MBCs/BPCs

Directorate. The Directorate will review the request and revert back within 10 working days on how to proceed with this specific BNPL centre/MBC/BPC.

4.1.2. Optimal number of processing hubs across cities

As mentioned earlier, the optimal number of processing hubs across cities can be best decided with an end-to-end network perspective in mind. This requires that the decision is taken centrally at the Directorate and then vetted in consultation with the Circle concerned. Hence the details of the same are not provided in this manual.

4.2. Processes

4.2.1. Standard processes at a Booking Post Office

This section describes the processes at a booking post office from the time a customer brings an article to be booked as Speed Post, to the time the article is bagged for despatch to the corresponding SPCC.

4.2.1.1. Booking

Activity description

❓ What does a booking unit consist of?

A booking unit consists of the following:

Tools/equipments

- One Booking Table: for keeping the computer, the bar-code scanner, the weighing scale, the printer and the TD/NTD trays

- One Booking Chair: for the booking PA to sit

- One Computer: to enable use of SpeedNet

- One Bar-code Scanner: to scan the articles

- One Weighing Scale: to weigh the articles

- One Printer: to print receipts for the customer

- One Booking Area Tray (TD): to keep TD articles after booking

- One Booking Area Tray (NTD): to keep NTD articles after booking

Manpower

■ Group-C (Booking PA): one for every booking unit
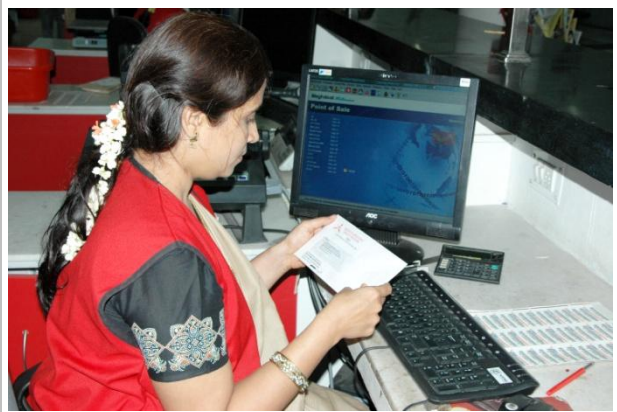
Please see below the photograph of a booking unit

FIGURE 4.1: Booking unit
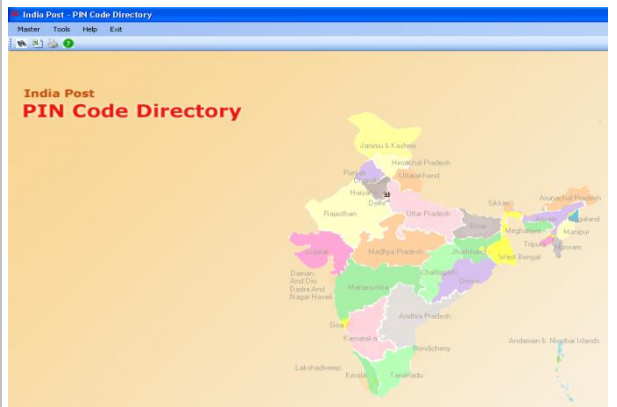
What is the activity flow at a booking unit?

Following is the activity flow at a booking unit:

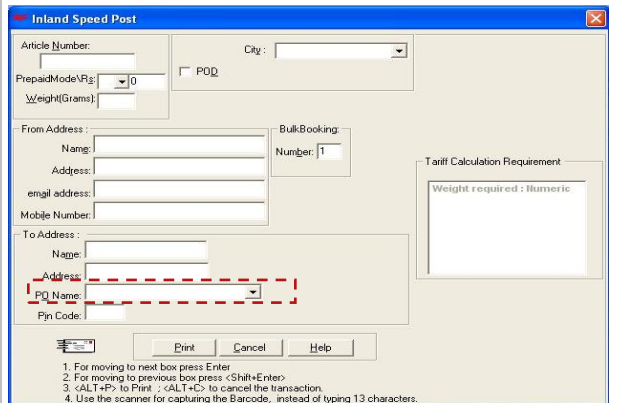|	
STEP 1: The customer arrives at the booking unit and hands over an article to the booking PA to be booked under Speed Post	

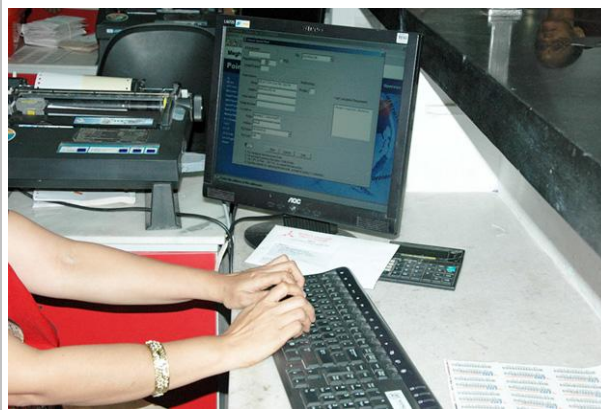|	
STEP 2: The booking PA checks if the complete address is clearly written on the article along with the PIN code	
STEP 3: In case the PIN code is missing, the booking PA searches for the PIN code in the PIN Code Directory (provided to post offices)/goes to the drop-down menu in Meghdoot (Point of Sale), finds the correct PIN code, and writes it on the article	
STEP 4: In case the booking PA is unsure, he/she checks whether Speed Post service is available for the destination address – by checking if the destination post office is available in the drop-down list of post offices on the booking screen	
STEP 5: If Speed Post service is not available for the destination PIN code, the booking PA politely communicates to the customer that the article can not be booked under Speed Post	

STEP 6: Otherwise, the booking PA enters the recipient name, complete destination address and the full 6 digit PIN code in the Meghdoot ('Point of Sale' module)	
STEP 7: The booking PA weighs the article on the weighing scale	
STEP 8: The booking PA collects the booking charges (as per the weight of article and destination) from the customer	
STEP 9: The booking PA picks up a fresh Speed Post article barcode label (from the booking table drawer) and pastes it on the article	

STEP 10: The booking PA uses the bar-code scanner to scan the bar-code on the article label	
STEP 11: The booking PA closes the booking in Meghdoot and prints 2 copies of the customer receipt	
STEP 12: The booking PA pastes the duplicate copy of the receipt on the article	
STEP 13: The booking PA hands over the receipt to the customer	

STEP 14: The booking PA keeps the article in either the TD booking area tray (if the article is destined to a PIN code under the home NSPC) or in the NTD booking area tray (otherwise) kept on the booking table	
STEP 15: The booking PA while keeping the articles in the trays, ensures that they are "faced" (arranged in the standing position, one in front of the other, all facing the same side)	

Exceptions

Following is the list of possible exceptions that a booking PA might face and the corresponding actions he/she should take:

■ PIN code corresponding to the address can not be identified: Do not book the article as it is and request the customer to provide the correct PIN code. Alternately, he/she should use the drop down menu provided for searching the PIN code and enter the correct 6-digit PIN code.

■ Damaged article: Do not book the article and advise the customer to change the envelope

■ Long customer queue at the booking unit: Politely request customers to wait but still book all articles following the procedure described above. Do not take short cuts like not entering the full 6 digit PIN codes etc.

Guidelines

Following are the guidelines and ground-rules for a booking unit:

■ Keep the articles in the correct booking area tray (TD/NTD) after booking

■ Paste a duplicate copy of the customer receipt on the article

Norm

■   Norm for a booking unit (Speed Post articles) is 48 articles/hour

Note: The above norm is as per Project Arrow

4.2.1.2   Dispatch Scanning

Activity description

❷   What does a dispatch scanning unit consist of?

A dispatch scanning unit consists of the following:

Tools/equipments

■   One Scanning Table: for keeping the computer, the bar-code scanner and the printer

■   One Scanning Chair: for the dispatcher to sit

■   One Computer: to enable use of SpeedNet

■   One Bar-code Scanner: to scan the articles

■   One Printer: to print the manifest

■   One Tray Trolley with a Booking Area Tray: to collect booked articles

■   One Scanning Area Tray: to keep the articles after scanning

Manpower

■   Group-C (PA/SA) Dispatcher: one for every dispatch scanning unit

Please see below the photograph of a dispatch scanning unit
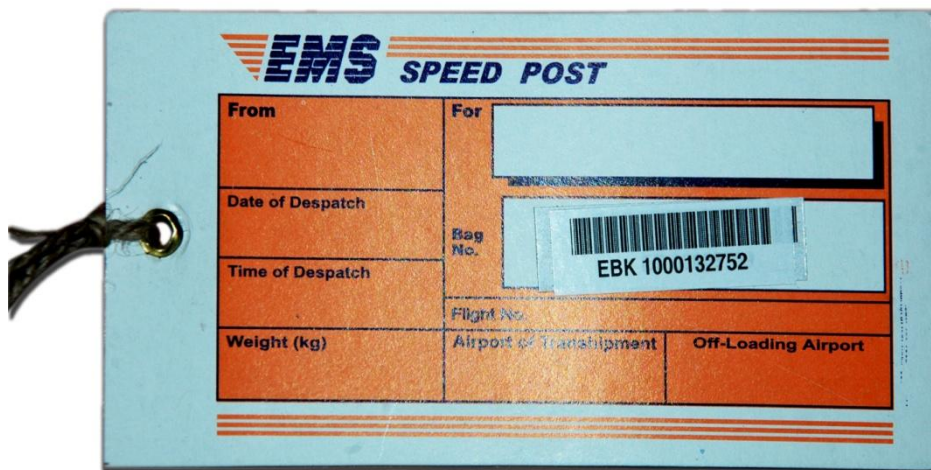
FIGURE 4.2: Dispatch scanning unit

FIGURE 4.3: Sample bag label

What is the activity flow at a dispatch scanning unit?

Following is the activity flow at a dispatch scanning unit:

STEP 1: Before (exact duration depends on volumes booked) a collection round, the dispatcher takes the tray trolley to each booking unit and picks up articles kept in the NTD booking area trays	
STEP 2: The dispatcher brings the tray trolley back to the dispatch scanning unit, parks it beside the scanning chair and sits on the chair	
STEP 3: The dispatcher picks up articles from the booking area tray kept on the tray trolley and scans them one-by-one in the SpeedNet ('Dispatch' module) using the bar-code scanner	
STEP 4: The dispatcher keeps all scanned articles in the empty scanning area tray kept on the scanning table. The dispatcher has the option of using rubber bands to bundle the articles	

STEP 5: The dispatcher picks up a Speed Post bag label from the drawer of the scanning table and scans it in SpeedNet using the bar-code scanner	
STEP 6: The dispatcher clearly writes "<Home NSPC name> NTD" (e.g., Bangalore NTD) on the bag label and places it in the scanning area tray kept on the scanning table	
STEP 7: The dispatcher closes the bag in SpeedNet, prints the manifest and places it in the scanning area tray kept on the scanning table	
STEP 8: The dispatcher repeats the entire process described above for TD articles	REPEAT *for TD*

Exceptions

Following is a list of possible exceptions that a dispatcher might face and the corresponding actions he/she should take:

- Damaged article: Hand-over the damaged article to the supervisor and seek directions

- Unable to scan the article label: Enter the article number manually in the system

- Articles in the booking area tray exceed 150: Scan 150 articles, prepare a manifest and label for them and send them to the bag closing unit; process the remaining articles normally as explained above

Guidelines

Following are a few guidelines and ground-rules for the dispatch scanning unit:

- Only NTD or TD (and not both) articles should be picked up in one round

- Scanning table should be checked for any loose articles after completing scans of all articles belonging to a single bag

Norm

- Norm for a dispatch scanning unit is 1,000 articles/hour (including collection of articles)

4.2.1.3   Bag Closing

Activity description

❷ What does a bag closing unit consist of?

A bag closing unit consists of the following:

Tools/equipments

- One Elephant Stool: for the bag closer to sit

- One Empty-bag Tray: for keeping stock of empty bags

- One Bag Lock Tray: for keeping stock of bag locks

- Scanning Area Trays: received from the dispatch scanning unit

Manpower

- Group-D/Outsourced Bag Closer – one for every unit

Please see below the photograph of a bag closing unit

FIGURE 4.4: Bag closing unit
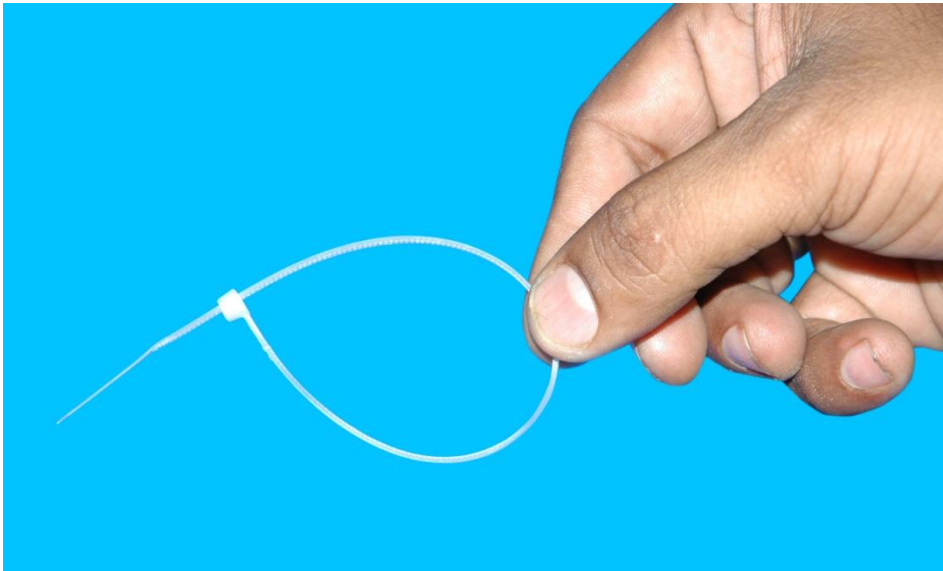
Please see below the photograph of a plastic bag lock

FIGURE 4.5: Bag lock

What is the activity flow at a bag closing unit?

Following is the activity flow of a bag closing unit:

STEP 1: The bag closer picks up a scanning area tray (containing scanned articles, manifest and the bag label) from the dispatch scanning unit and keeps it beside the elephant stool	
STEP 2: The bag closer picks up an empty bag from the Empty-bag Tray	
STEP 3: The bag closer puts all articles from the scanning area tray (along with the manifest) inside the empty bag	
STEP 4: The bag closer picks up a bag lock from the bag lock tray and uses it to close the filled bag	

STEP 5: The bag closer ties the bag label to the bag lock by inserting the bag lock through the eyelet of the bag label	
STEP 6: When the MMS vehicle arrives for a collection round, the bag closer transfers the closed bag to the MMS vehicle	

Exceptions

Following is a list of possible exceptions that a bag closer might face and the corresponding actions he/she should take:

■ Damaged empty bag: Dispose the damaged bag and use a another bag for closing

Guidelines

Following are the guidelines and ground-rules for a bag closing unit:

■ No articles should be kept on the floor

Norm

Norm for a bag closing unit is 1 bag in every 2 minutes

Supervisor's Role

The role of a post office supervisor is two-fold: (1) ensure strict adherence to the process described above through constant dialogue/interaction with the staff; (2) take appropriate actions on exceptions brought to his/her notice

Following is a list of possible exceptions that might be brought to a supervisor's notice and the corresponding actions he/she should take:

■ Damaged article: Weigh the article first and tally it with the weight mentioned on the slip pasted on the article. In case the actual weight is less than the written weight, prepare an error report on the article carrying all details (article number, origin post office, origin SPCC, destination SPCC, destination post office, written and actual weights, number of the bag in which the article will be contained etc.). Send one copy of the error report to the home SPCC and file the other copy in the daily error report that is submitted to postmaster. In all cases, he/she should wrap the article properly using a tape and process it normally like any other article.

4.2.2. Standard processes for MMS

MMS vehicles carry out collection and delivery rounds as per arrangements described in the 'Network Schedule' section. From a process point of view, the unloading of bags by MMS vehicles at the SPCC is critical and is described as part of the 'Standard Processes at a Mail Agency' (section 4.2.6.1)

4.2.3. Standard processes at a SPCC – for documents

This section describes the processes inside a SPCC hall (for documents) from the time a bag is opened (after receipt at mail agency) to the time a bag is closed (before dispatch from mail agency)

Concept

The driving notion behind all process adjustments is standardisation. All SPCCs across the country need to function in the same manner. Consistency in functioning ensures smoother interaction between different SPCCs and better monitoring. These two things together lead to a more reliable (e.g., less mis-sorts) system and an improved service to the customer. Another advantage of standardisation is that it allows for better productivity benchmarking, which can be used to systematically increase throughput.

Standardisation at a SPCC can be viewed from the lens of streamlining the flow of articles inside the SPCC hall in an assembly line fashion. Each article passes through multiple processes and people before it gets bagged. The job of each person here is specialised such as the one in an assembly line production system. One person is responsible for only one aspect of processing (opening, scanning, sorting etc.) and the joint effort of everyone, coupled with quality supervision, ensures that articles flow smoothly and faster through the system.

There are 2 key enablers for streamlining the flow or articles inside a SPCC hall (1) a layout that facilitates the assembly line flow and (2) tools/equipments that enable adoption of the simplified processes
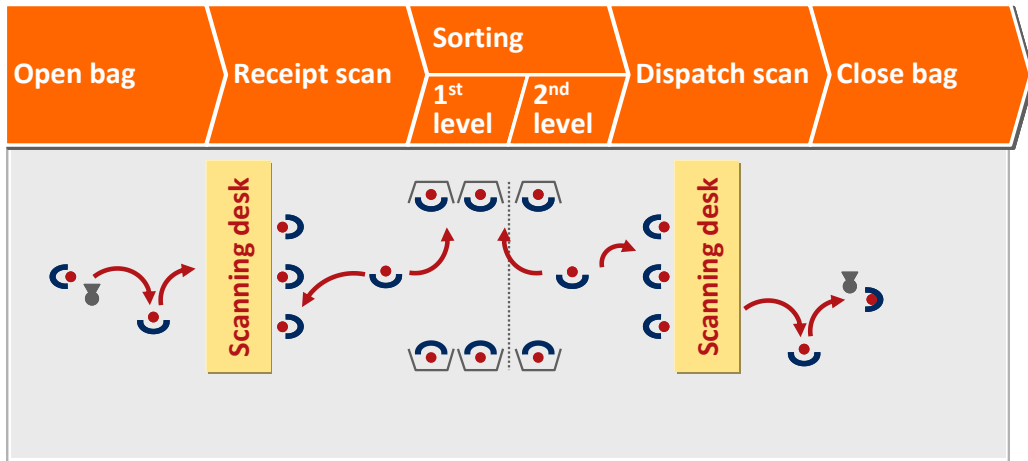

FIGURE 4.6: Prescribed SPCC layout

A self explanatory schematic of the prescribed layout is shown above. This is only a concept diagram and needs to be adapted to the specific local constraints in terms of dimensions of the operation hall. For example, for an unusual shape of SPCC hall (like below), the lay-out can be adapted as shown below:
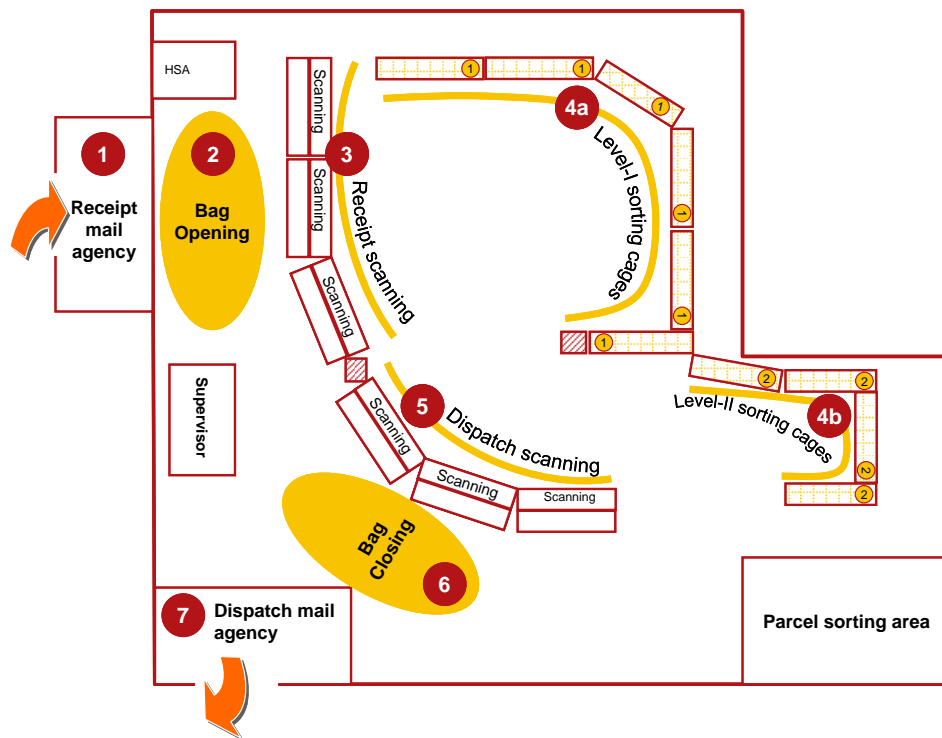

FIGURE 4.7: Adapted SPCC layout

Description of tools/equipments is covered along with the process details

4.2.3.1   Bag Opening

Activity description

❓ What does a bag opening unit consist of?

A bag opening unit consists of the following:

Tools/equipments

- One Elephant Stool: for the bag opener to sit

- One Bag Cutter: for cutting the bag lock

- One Empty-bag Tray: for stacking empty bags

- One Dustbin: for throwing the bag lock after having cut it open

- Scanning Area Trays: for keeping the contents (articles, manifest and label) of the bag

Manpower

- Group-D/Outsourced Bag Opener: one for every bag opening unit

- Group-D/Outsourced Bag Opening Assistant: one for every 3 bag opening units

Please see below the photograph of a bag opening unit

FIGURE 4.8: Bag opening unit

❓ How many bag opening units are required?

One bag opening unit should be able to handle 40 bags in an hour. For example, if the peak rate of bag opening at a SPCC is 100 bags/hour, then 100/40 = 2.5 bag opening units are required at peak time.

❓ What is the activity flow at a bag opening unit?

Roller containers with clear labels of the 3 types of incoming bags (TD, NTD, and Inbound TD) should be stationed between the receipt mail agency and the bag opening units as shown in the photograph below. At any point of time, only one of the 3 types of bags should be opened for processing.

FIGURE 4.9: Labelled roller containers

Following is the activity flow at a bag opening unit:

STEP 1: The Group-D/Outsourced Bag Opening assistant picks up a bag from the a roller container (TD, NTD or Inbound TD depending on the shift) and hands it over to the bag opener sitting on the elephant stool	

STEP 2: The bag opener cuts the bag lock using the bag cutter and throws the lock in the dustbin	
STEP 3: The bag opener takes out the articles from the bag and puts them (along with the manifest and the bag label) inside the scanning area tray lying beside him/her	
STEP 4: The bag opener puts the empty bag inside the empty-bag tray lying beside him/her	
STEP 5: The bag opener faces (arranges articles in the standing position, one in front of the other, all facing the same side) all the articles inside the scanning area tray	

STEP 6: The Group-D/Outsourced Bag opening assistant picks up the filled scanning area tray and takes it to the least busy receipt scanning unit	
STEP 7: The Group-D/Outsourced bag opening assistant picks up the empty scanning area tray from the receipt scanning unit and stacks it up beside the bag opener	

Exceptions

Following is a list of possible exceptions that a bag opener might face and the corresponding actions he/she should take:

- **Missing bag label:** Inform the set/shift supervisor about the same but process the bag normally as explained above

- **Damaged bag:** Inform the set/shift supervisor about the same but process the bag normally as explained above

- **Articles from a bag not fitting in a single scanning area tray:** Use multiple trays but ensure that they go to the same receipt scanning unit

Guidelines

Following are the guidelines and ground-rules for a bag opening unit:

- Bigger bags should be opened at the start of the shift and small ones later

- Bigger bags should be opened in case few receipt scanning units are idle

- Smaller bags should be opened in case all receipt scanning units are busy

- No bag should be kept on the floor except the one with the bag opener

- No articles should be kept on the floor

- Knives should not be used for opening of bags

Norm

- Norm for a bag opening unit is 40 bags/hour – 30 seconds for the opening a bag and 60 seconds for facing the articles in the scanning area tray

4.2.3.2   Receipt Scanning

Activity description

❷ What does a receipt scanning unit consist of?

A receipt scanning unit consists of the following:

Tools/equipments

- One Scanning Table: for keeping the computer, the bar-code scanner and the scanning area tray

- One Scanning Chair: for the scanning PA/SA to sit

- One Computer: to enable use of SpeedNet

- One Bar-code Scanner: to scan the articles

- One Scanning Area Tray: received from the bag opening unit

- One Tray Trolley with a Sorting Area Tray: to keep the articles after scanning

- One Dustbin: for throwing the bag label after having opened the bag (bag label should be disposed off later as per standard procedure)

Manpower

- Group-C/Outsourced Scanning PA/SA: one for every unit
- Group-D/Outsourced staff: one for every 5 units

Please see below the photograph of a receipt scanning unit

FIGURE 4.10: Receipt scanning unit

⊘ How many receipt scanning units are required?

One receipt scanning unit should be able to handle 1,800 articles in an hour. For example, if the peak rate of receipt scan at a SPCC is 6,000 articles/hour, then 6,000/1,800 = 3.3 receipt scanning units are required

⊘ What is the activity flow at a receipt scanning unit?

Following is the activity flow of a receipt scanning unit:

STEP 1: The Group D official of the bag opening unit keeps a scanning area tray (containing faced articles from a bag, bag label and the manifest) on the scanning table of the receipt scanning unit	

STEP 2: The scanning official puts the manifest inside the computer table drawer	
STEP 3: The scanning official first scans the bag label and then throws it in the dustbin	
STEP 4: The scanning official scans all articles in the scanning area tray in the SpeedNet ('Opening of Bags' option) one-by-one using the bar-code scanner. He/she ensures that the facing of the articles is not disturbed while scanning	
STEP 5: The scanning official puts all scanned articles (maintaining their facing) in the empty sorting area tray sitting on the tray trolley beside him/her	

Step 6: The Group-D official takes the tray trolley once it is filled to a level-I sorting case	
Step 7: The Group-D official brings back the tray trolley with an empty sorting area tray and parks it beside the scanning chair on which the scanning official is sitting	

Exceptions

Following is a list of possible exceptions that a scanning official might face and the corresponding actions he/she should take:

- **Damaged article:** Hand-over the damaged article to the set/shift supervisor

- **Missing bag label:** Read the bag number from the manifest and enter it manually in the system

- **Unable to scan the article label:** Enter the article number manually in the system

- **Number of articles in a bag different from the number mentioned on the manifest:** Inform the set/shift supervisor about the same but process the articles normally as explained above

- **Articles from a bag not fitting in a single sorting area tray:** Keep the filled sorting area tray on the lower level of the tray trolley and ask the Group-D official to get another tray (which can now be kept on the top level of the tray trolley) for the remaining articles

Guidelines

Following are a few guidelines and ground-rules for the receipt scanning unit:

- Articles should be scanned individually and not through virtual scanning

- The scanning official/PA/SA should not get up for tray movement and instead take the help of the Group D official for the same

- Scanning table should be checked for any loose articles after completing scans of all articles from a single bag

Norm

- Norm for a receipt scanning unit is 1,800 articles/hour

4.2.3.3   Sorting

Developing a Sorting Pattern

The central idea behind an efficient sorting pattern is to minimise the average number of handlings per article with the ultimate aim of maximising the throughput and expediting processing. Typically, in cases where the number of selections is large it is not possible to provide pigeon holes for all selections in a single sorting case. It becomes imperative to have multiple levels of sorting. But the idea should be to do final sorting for maximum number of articles in the first level itself (single handling) and minimise the articles that need to go to the second level (double handling) for final sorting.

Here is a step-by-step description of as to how such a sorting pattern can be arrived at for any SPCC

⊘ How to do the required data analysis?

- Extract the last 3 months SPCC 'Despatch Abstract' from SpeedNet

- From this abstract, remove rows which correspond to one-off or seasonal events (e.g., articles pertaining to admission forms in the month of March)

FIGURE 4.11: Sample dispatch abstract

■ Retain only the 'NumberOfArticles' and 'StationTo' columns of the abstract

FIGURE 4.12: Retained columns of the dispatch abstract

■ From the 'StationTo' column, extract the destination PIN code for all rows and write it in the adjacent column (name this column 'PinCode')
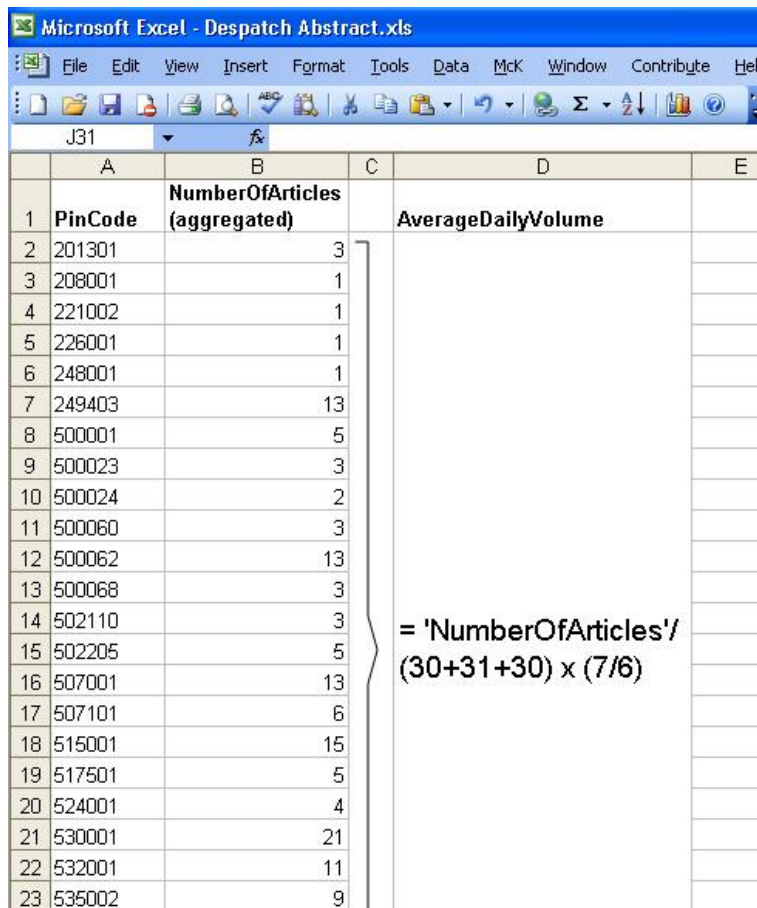
FIGURE 4.13: Extracted PIN codes from the 'StationTo' column

■ Aggregate (using the 'pivot table' tool in MS Excel) the 'Number OfArticles' based on the 'PinCode' column to get the total volume destined for each PIN code in the 3 month period (name the aggregated list 'PIN code Volumes')

FIGURE 4.14: 'PIN code Volumes' list obtained after aggregation using 'pivot table'

■ In the 'PIN code Volumes' list, divide every row of the 'NumberOfArticles' column by the total number of days in the 3 months and multiply by (7/6) to arrive at volumes per working day. Write the calculated number in the adjacent column (call this column 'AverageDailyVolume') and delete the 'NumberOfArticles' column

e.g., 'AverageDailyVolume' = 'NumberOf Articles' / (30+31+30) x (7/6)

FIGURE 4.15: Obtaining 'AverageDailyVolume' in the 'PIN code Volumes' list

■ Split this 'PIN code Volumes' list into two:

   – TD (comprising of all PIN codes that are mapped to the home NSPC)

   – NTD (comprising of all remaining PIN codes)

■ In the NTD list, for every row write the NSPC names corresponding to the PIN codes in the adjacent column (call this new column 'NSPC')

■ Aggregate (using the 'pivot table' tool in MS Excel) the 'NumberOfArticles' based on the 'NSPC' column to get the total volume destined for each NSPC (name the aggregated list 'NSPC Volumes')

How to generate optimal sorting diagrams?

TD sorting diagram

- Sort the TD list in decreasing order based on 'AverageDailyVolume'

- Pick the top 47 PIN codes for level-I sorting case (50 pigeon holes)

- Keep remaining 3 pigeon holes for:

  – Other Shift (1 pigeon hole): TD article appearing in the NTD set/shift or NTD article appearing in the TD set/shift

  – Level-II (2 pigeon holes): Article for which the corresponding pigeon hole exist in one of the level-II sorting cases

- Arrange these 50 selections on a schematic diagram of the sorting case in a manner so that the high volume selections are easy to access by the sorters. Inputs of the sorters can be taken for arriving at the most suitable arrangement. This gives the level-I TD sorting diagram

	1	2	3	4	5	6	7	8	9	10
1	Devanahalli 562110	Doddaballapura 561203	Harohalli 562112	Bettahalasur 562157	Nandagudi 562122	Subramanyapura 560061	R R Nagar 560098	Yelahanka 560064	Bannerghatta 560083	Shivaram Karanth Nagar 560077
2	Channpatna 571501	BG GPO 560001	Atibelle 562107	Bidadi 562109	Bagalur 562149	D V Nagar 560016	BG City 560002	Vijayanagar 560040	Whitefield 560066	Doddakallasandra 560062
3	Rajajinagar 560010	Kengeri 560060	Ramanagaram 571511	Tavarekere 562130	Sarjapura 562125	Peenya S I 560058	Fraser Town 560005	Jalahalli 560013	Malleshwaram 560003	Udayapura 560082
4	R T Nagar 560032	R V Niketan 560059	Anekal 562106	I loskote 562114	Vijayapura 562135	DSK II Strage 560070	J P Nagar 560078	Jayanagar 560041	Vimanapura 560017	Nayadahalli 560039
5	Magadi 562120	Basavanagudi 560004	Kanakapura 562117	Nelamangala 562123	LEVEL II A	OTHER SHIFT	Domalur 560071	Bommasandra IA 560099	Koramangala 560034	Chikkabanavara 560090

FIGURE 4.16: Sample TD sorting diagram

- Pick the remaining PIN codes from the TD list and divide them into 2 sets of, at most 47 each, based on some logic (PIN code values, geography etc.)

- Each of the 2 sets corresponds to one type of level-II sorting case (let us call them level-II A and level-II B), which in addition to the PIN-coded pigeon holes, have 3 additional pigeon holes:

  – Other Shift (1 pigeon hole): TD article appearing in the NTD set/shift or NTD article appearing in the TD set/shift

  – Level-I (1 pigeon hole): An article which should have been final sorted in level-I itself but by mistake has been sent to this level-II sorting case

  – Other Level-II Sorting Case (1 pigeon hole): An article which should have been sent to the other level-II sorting case but by mistake has been sent to this sorting case

- Arrange the 50 selections each of level-II A and level-II B on separate schematic diagrams of the sorting cases in a manner so that the high

volume selections are easy to access by the sorters. Inputs of the sorters can be taken for arriving at the most suitable arrangements. This gives the level-II A and level-II B TD sorting diagrams

Note: The above description is based on the assumption that 3 sorting cases (level-I, level-II A and level-II B) are required to cover the entire list of TD PIN codes. In case the number of PIN codes is more than 47 x 3, more than 2 level-II sorting cases will be required, and if the number of PIN codes is less than 97, only 1 level-II sorting case will be sufficient. Please note that the number of level-II sorting cases will also have an impact on the number of PIN-coded pigeon holes in any sorting diagram. For example, if there is only one level-II sorting case, then there can be 48 PIN-coded pigeon holes (the remaining 2 for 'Other Set/Shift' and 'Level-I'/'Level-II') instead of 47 in both level-I and level-II sorting cases.

NTD sorting diagrams

Generate the NTD sorting diagrams in exactly the same way as for TD sorting diagrams but by using the 'NSPC Volumes' list. This will contain names of NSPCs instead of PIN codes of post offices as in the TD list used for generating TD sorting diagrams. It is important to provide one pigeon hole for each of the NSPCs in the Speed Post network.

Non TD Level I									
1	2	3	4	5	6	7	8		
Bhubaneshwar 751001	Fanaji 404001	Jaipur 302001	Raichur 584'01	Bijapur 586101	Bagalkot 58710'	Haveri 581110	Kottayam 686001	Guwahati 781001	Lucknow 226001
Ranchi 834001	Pune 4'1001	Ludhiana 14'001	Dharwad 580001	Hospet 583201	Gadag 58210'	Sirsi 581401	Kozhikode 673001	Kanpur 208001	Tumkur 572101
Patna 800001	Ahmedabad 380001	Anantpur 515001	Davangere 577001	Bellary 583101	Belgaum 59000'	Gulbarga 585101	Kochi 682001	Hassan 573201	Mangalore 575001
Kolkata 700001	Mumbai 400001	Hyderabad 500001	Shimoga 577201	Mysore 570001	Kolar 56310'	Bidar 585401	Trivandrum 695001	Udupi 576101	Chikkamagalur 577101
Imphal 795001	Delhi 1'0001	Chennai 600001	LEVEL II A	LEVEL II B	LEVEL II C	LEVEL II D	OTHER SHIFT	Vellore 623001	Coimbatore 641001

FIGURE 4.17: Sample NTD sorting diagram

⊘ How to label the sorting cases?

All pigeon holes in each sorting case have 2 labels – one for TD and one for NTD. The labels are to be pasted on top of the pigeon holes indicating that sorters 'sort-down'. The TD label (background colour – white, font colour – black, font type – Arial, font size – 30) is on the left, and consists of the name of the post office and the PIN code. The NTD label (background colour – yellow, font colour – black, font type – Arial, font size – 30) is on the right, and consists of the name of the NSPC and the PIN code (optional) of the corresponding SPCC. The labels are pasted using a transparent tape than runs across the label so as

to prevent them from damage. Kindly refer to the photographs of TD and NTD labels, and that of a labelled sorting case as shown below:

FIGURE 4.18: TD label

FIGURE 4.19: NTD label

FIGURE 4.20: Labelled sorting case

It may also be useful to paste the sorting diagram on the side of the sorting case for easy reference of the sorter as shown below in the photograph:
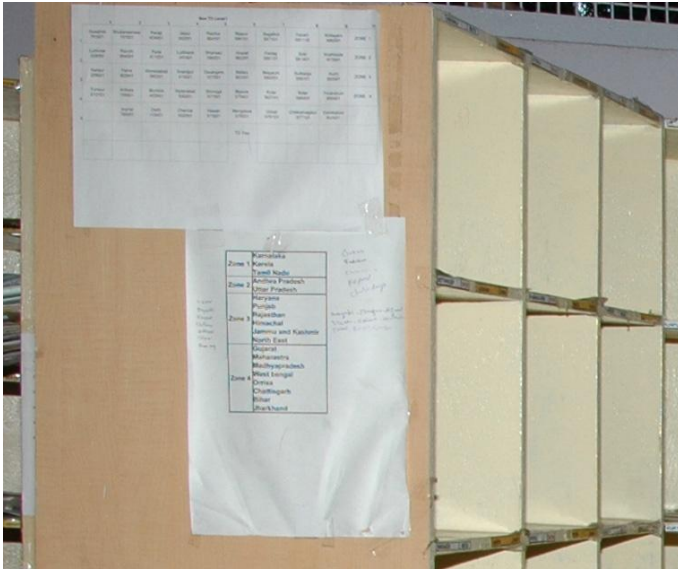
FIGURE 4.21: Pasted sorting diagram on the sorting case

Activity description

❓ What does a sorting unit consist of?

A sorting unit consists of the following:

Tools/equipments

■ One 50 Pigeon Hole U-shaped Sorting Case: for sorting the articles

■ One Sorting Chair: for the sorting assistant/sorter to sit

■ One Tray Trolley with a Sorting Area Tray: received from the receipt scanning unit or from another sorting unit

Manpower

■ Group-C (PA/SA)/Outsourced Sorter: one for every unit

Please see below the photograph of a sorting unit

FIGURE 4.22: Sorting unit

How many sorting units are required?

First, it is important to note that the same sorting units are used for both TD and NTD sorting, since at any point of time either TD or NTD sorting takes place. Arriving at the right ratio of level-I:level-II sorting units and the right absolute number of sorting units is critical.

Calculate the optimal ratio of level-I:level-II sorting units using the following formula:

$$\frac{N \text{ (Level-I TD)}}{N \text{ (Level-II TD)}} = \frac{\text{Average Daily Volume (Level-I Pin-codes)}}{\text{Maximum (Average Daily Volume (Level-II A/B Pin-codes))}}$$

where,

N (Level-I TD) is the number of level-I TD sorting units;

N (Level-II TD) is the number of level-II TD sorting sets (one set comprises one each of every type of level-II sorting unit);

Average Daily Volume (Level-I PIN codes) is the sum of 'AverageDailyVolume' column in the TD list for level-I PIN codes;

Average Daily Volume (Level-II A/B PIN codes) is the sum of 'AverageDailyVolume' column in the TD list for PIN codes corresponding to a particular level-II sorting unit;

Maximum Average Daily Volume (Level-II A/B PIN codes)) is the maximum of Average Daily Volume (Level-II A/B PIN codes) across different types (level-II A/ level-II B) of level-II sorting units.

For example, if the sum total of average daily volumes of all PIN codes that are part of the level-I TD sorting diagram is 15,000, the sum total of average daily volumes of all PIN codes that are part of the level-II A TD sorting diagram is 2000, and the sum total of average daily volumes of all PIN codes that are part of the level-II B TD sorting diagram is 2,500; then the ratio of level-I:level-II sorting cases will be 15,000/max (2,000, 2,500), which is 15,000/2,500 or 6:1. This means that for every single level-II sorting set, there should ideally be 6 level-I sorting cases.

Assuming that a sorter can sort 800 articles in an hour, the optimal absolute number of sorting units is:

N (Level-I TD) = Peak hourly throughput of the SPCC / 800

where,

N (Level-I TD) is the absolute number of level-I TD sorting units;

Peak hour throughput of the SPCC is the maximum number of Speed Post articles that the SPCC needs to process in any single hour of the day

For example, if the peak throughput at a SPCC is 6,000 SPAs/hour, then 6,000/800 = 7.5 level-I sorting units are required.

Note: In case it is not possible to satisfy both criteria – the optimal absolute number of sorting units and the optimal ratio of level-I:level-II sorting units – simultaneously, then the optimal absolute number criteria is given preference and lower than optimal ratio of level-I:level-II sorting units is accepted. For example, if the optimal ratio of level-I:level-II sorting units is 6:1 and peak hour throughput is 6,000, which translates to 6,000/800 = 7.5 level-I sorting units, then it is prudent to have 8 level-I sorting units and 2 level-II sorting sets (ratio of 4:1). Lower than desired ratio of level-I:level-II sorting units will only mean that level-II sorting units will not be 100% utilised at all times, but it will not adversely affect the throughput of the SPCC which is most critical.

Similar calculations are done for NTD to arrive at the optimal number of sorting units. The maximum of the two are taken to be the actual number of sorting units at the SPCC.

What is the activity flow at a sorting unit?

Following is the activity flow at a sorting unit:

STEP 1: The Group-D/assistant of the receipt scanning unit brings (either from the receipt scanning unit or from another sorting unit) a tray trolley with a sorting area tray (containing un-sorted articles) kept on it and parks it beside the sorter	
STEP 2: The sorter, either standing or sitting on his/her sorting chair, picks un-sorted articles in bundles from the sorting area tray and places them one-by-one in the appropriate pigeon holes (looking at the addresses) as per the sorting diagram	
STEP 3: After completing sorting of all articles in the sorting area tray, the sorter asks the Group-D/assistant of the receipt scanning unit to take away the emptied sorting area tray and bring another un-sorted sorting area tray to him/her	
STEP 4: The Group-D/assistant of the receipt scanning unit from time to time (upon instructions from other sorters) brings a tray trolley with a sorting area tray kept on it and collects articles from particular pigeon holes to take them to other sorting unit for further sorting	

STEP 5: The Group-D/assistant of the dispatch scanning unit from time to time (upon instructions from the scanner) brings a tray trolley with a sorting area tray kept on it and collects articles from particular pigeon holes to take them for dispatch

Exceptions

Following is a list of possible exceptions that a scanning official might face and the corresponding actions he/she should take:

- Damaged article: Hand-over the damaged article to the set/shift supervisor

- Unable to sort the article because of illegible address: Hand-over the article to the set/shift supervisor

- Large number of articles for a single bulk recipient or a big post office: Maintain separate trays (which will act as pigeon holes) for such recipients and/or post offices. Keep these trays at the lowest level of the sorting case (below the pigeon holes). Number of such trays at any sorting case should not be more than two.

Guidelines

Following are a few guidelines and ground-rules for the receipt scanning unit:

- The sorter should not get up for the tray trolley movement

- The sorter should do either TD or NTD sorting at any point of time

- The sorter should not do sorting for any destination other than the ones mentioned in the sorting diagram

Norm

- Norm for a sorting unit is 800 articles/hour (for a single level of sorting)

Note: This norm is for single handling of articles while sorting, and not for final sorting of articles. Articles going to level-II sorting cases will require double handling. Such articles will be counted twice from the norm perspective.

4.2.3.4 Dispatch Scanning

Activity description

❷ What does a dispatch scanning unit consist of?

A dispatch scanning unit consists of the following:

Tools/equipments

■ One Scanning Table: for keeping the computer, the bar-code scanner and the scanning area tray

■ One Scanning Chair: for the scanning official to sit

■ One Computer: to enable use of SpeedNet

■ One Bar-code Scanner: to scan the articles

■ One Tray Trolley with a Sorting Area Tray: received from the sorting unit

■ One Scanning Area Tray: to keep the articles after scanning

■ One Network Printer: for printing the manifest

Manpower

■ Group-C(PA/SA)/Outsourced Scanning Official: one for every unit

■ Group-D/Outsourced Assistant: one for every 5 units

Please see below the photograph of a dispatch scanning unit
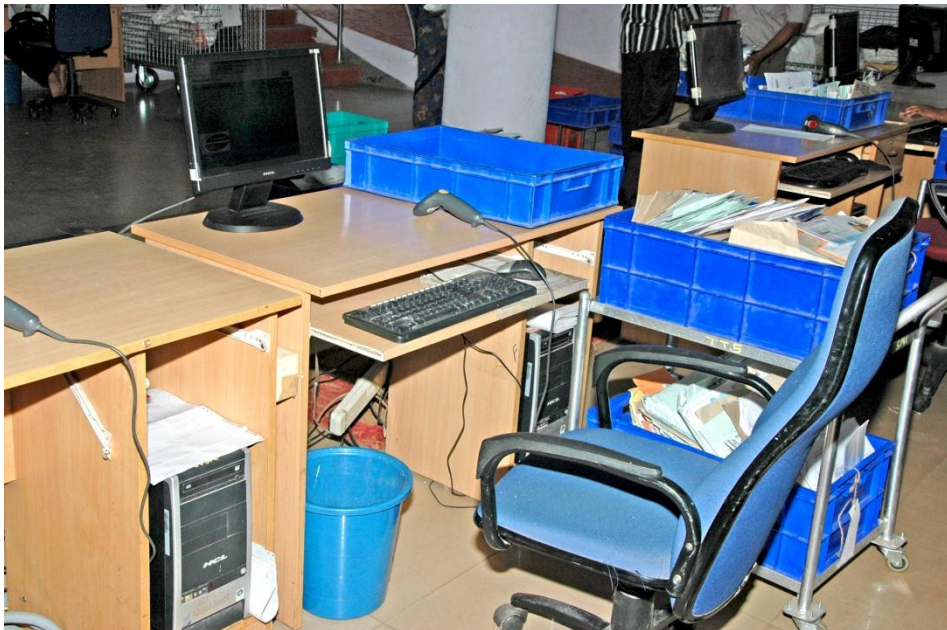
FIGURE 4.23: Dispatch scanning unit
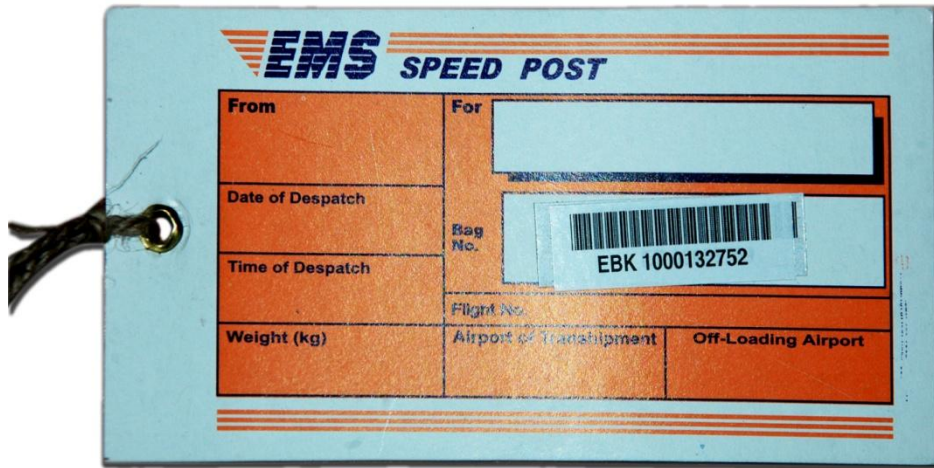
FIGURE 4.24: Sample bag label

❷ How many dispatch scanning units are required?

One dispatch scanning unit should be able to handle 1,800 articles in an hour. For example, if the peak rate of receipt scan at a SPCC is 6,000 SPAs/hour, then 6,000/1,800 = 3.3 dispatch scanning units are required.

❷ What is the activity flow at a dispatch scanning unit?

Following is the activity flow at a bag opening unit:

STEP 1: Upon instructions from the scanner, the Group-D/Outsourced assistant brings a tray trolley with a sorting area tray (containing sorted articles to a specific destination) kept on it and parks it besides the scanning official	
STEP 2: The scanning official, while sitting on the scanning chair, scans all articles in the sorting area trays. Before scanning, he/she can seek the help of the Group-D/ Outsourced assistant to face all articles	

STEP 3: The scanning official gives a command from his/her computer to print the manifest on the network printer	
STEP 4: Upon instructions from the scanning official, the Group-D/Outsourced assistant brings the manifest from the printer and hands it over to the scanning official	
STEP 5: The scanning official picks up a blank bag label from the scanning table drawer, scans it to close the bag in SpeedNet ('Closing of Bags' option), and writes the destination NSPC (NTD)/PIN code (TD) on the bag label	
STEP 6: The scanning official puts all scanned articles (along with the manifest and the bag label) in the empty scanning area tray kept on the scanning table	
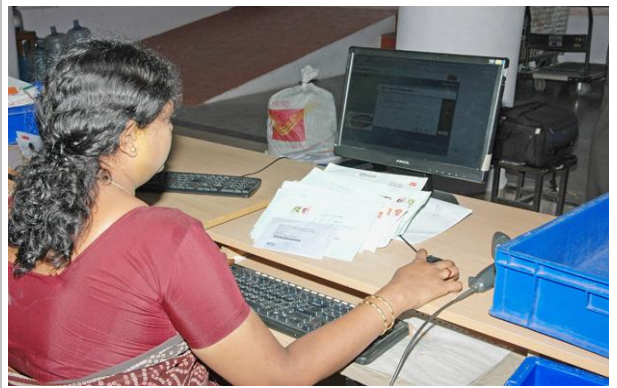
STEP 7: The Group-D/Outsourced assistant of the bag closing unit picks up the scanning area tray and takes it to the bag closing unit	
STEP 8: The Group-D/Outsourced assistant of the bag closing unit brings back an empty scanning area tray from the bag closing unit and keeps it on the scanning table	

Exceptions

Following is a list of possible exceptions that a scanning official might face and the corresponding actions he/she should take:

■ Damaged article: Hand-over the damaged article to the set/shift supervisor

■ Unable to scan the article label: Enter the article number manually in the system

■ Articles in the sorting area tray exceed 150: Scan 150 articles, prepare a manifest for them and send them to the bag closing unit; process the remaining articles normally as explained above

Guidelines

Following are a few guidelines and ground-rules for the receipt scanning unit:

■ The scanner should not get up for tray movement and instead seek help of the Group D/assistant for the same

■ Scanning table should be checked for any loose articles after completing scans of all articles belonging to a single bag

Norm

■ Norm for a dispatch scanning unit is 1,800 SPAs/hour

4.2.3.5   Bag Closing

Activity description

❷ What does a bag closing unit consist of?

A bag closing unit consists of the following:

Tools/equipments

- One Elephant Stool: for the bag closer to sit

- One Empty-bag Tray: for keeping stock of empty bags

- One Bag Lock Tray: for keeping stock of bag locks

- Scanning Area Trays: received from the dispatch scanning unit

- One Roller Container: for stacking the closed bags

Manpower

- Group-D/Outsourced Bag Closer: one for every unit

- Group-D/Outsourced Assistant: one for every 3 units

Please see below the photograph of a bag closing unit

FIGURE 4.25: Bag closing unit

Please see below the photograph of a plastic bag lock

FIGURE 4.26: Bag lock

? How many bag closing units are required?

One bag closing unit should be able to handle 100 bags in an hour. For example, if the peak rate of bag closing at a SPCC is 150 bags/hour, then 150/100 = 1.5 bag closing units are required.

? What is the activity flow at a bag closing unit?

Following is the activity flow at a bag closing unit:

STEP 1: The Group-D/assistant picks up a scanning area tray (containing scanned articles, manifest and bag label) from the dispatch scanning unit and keeps it beside the bag closer sitting on the elephant stool	

STEP 2: The bag closer picks up an empty bag from the Empty-bag Tray	
STEP 3: The bag closer puts all articles from the scanning area tray (along with the manifest) inside the empty bag	
STEP 4: The bag closer picks up a bag lock from the bag lock tray and uses it to close the filled bag	
STEP 5: The bag closer ties the bag label to the bag lock	

STEP 6: The Group-D/assistant picks up the filled bag and keeps it inside the roller container

Exceptions

Following is a list of possible exceptions that a bag closer might face and the corresponding actions he/she should take:

■ Damaged empty bag: Dispose that bag and use another bag for closing

Guidelines

Following are the guidelines and ground-rules for a bag closing unit:

■ No bag should be on the floor except the one with the bag closer

■ No articles should be on the floor

Norm

■ Norm for a bag closing unit is 90 bags/hour

Supervisor's Role

The role of a SPCC supervisor (for documents) is two fold – (1) ensure strict adherence to the process described above through constant dialogue with the staff; (2) take appropriate actions on exceptions brought to his/her notice

Following is a list of possible exceptions that might be brought to a Supervisor's notice and the corresponding actions he/she should take:

■ Missing bag label: Prepare an error report on the bag carrying all details (bag number taken from the manifest, source SPCC/Post Office, bag weight, article numbers of the articles inside the bag etc.). Send one copy of the report to the origin SPCC (in case the home SPCC is the destination SPCC for that article) and file the other copy in the daily error report that is submitted to the SPCC manager.

■ **Damaged bag:** Weigh the bag first and tally it with the weight mentioned on the bag label. In case there is no weight mentioned on the bag label or the actual weight is less than the written weight, open the bag and count the number of articles inside it. In case the actual number of articles is less than the articles mentioned in the manifest, prepare an error report on the bag carrying all details (bag number, source SPCC/Post Office, written and actual weights, article numbers of the missing articles etc.). Send one copy of the report to the origin SPCC (in case the home SPCC is the destination SPCC for that article) and file the other copy in the daily error report that is submitted to the SPCC manager.

■ **Damaged article:** Weigh the article first and tally it with the weight mentioned on the slip pasted on the article. In case the actual weight is less than the written weight, prepare an error report on the article carrying all details (article number, origin post office, origin SPCC, destination SPCC, destination post office, written and actual weights, number of the bag in which the article was contained etc.). Send one copy of the error report to the origin SPCC (in case the home SPCC is the destination SPCC for that article) and file the other copy in the daily error report that is submitted to the SPCC manager. In all cases wrap the article properly using a tape and process it normally like any other article.

■ **Number of articles in a bag different from the number mentioned on the manifest:** Prepare an error report on the bag carrying all details (bag number, source SPCC/Post Office, written and actual weights, article numbers of the missing articles etc.). Send one copy of the report to the origin SPCC (in case the home SPCC is the destination SPCC for that article) and file the other copy in the daily error report that is submitted to the SPCC manager.

■ **Unable to sort the article because of illegible address:** Check the destination address for the article in the system using the article number. In case the address is available, write it legibly on the article and process the article normally like any other article. In case the address is not available, arrange to return the article to the origin post office and additionally prepare an error report on the article carrying all details (article number, source SPCC/Post Office etc.). Send one copy of the error report to the origin SPCC (in case the home SPCC is the destination SPCC for that article) and file the other copy in the daily error report that is submitted to the SPCC manager.

4.2.4. Standard processes at a SPCC – for parcels

This section describes the processes inside a SPCC hall for parcels from the time a parcel bag is opened (after receipt at mail agency) to the time a parcel bag is closed (before dispatch from mail agency).

After the receipt of a bag containing parcel(s) at the mail agency, the processing of parcels gets segregated from that of documents. While the documents go to the bag opening area for documents, the parcels are taken to the parcel area. The two types of articles merge again at the dispatch mail agency.

Concept

The key idea behind the prescribed processes for parcels is to resemble the processes for documents as closely as possible so as to not differentiate between the two types of articles at least from the customer perspective. The factors that affect handling – large size of parcels and small number of parcels (compared to documents) – are the key determinants in identifying the appropriate processes for parcels. These factors get manifested in the way parcel sorting is prescribed where roller containers are treated as pigeon holes and parcels are directly transferred from one roller container to another. It will be useful to draw parallels from SPCC processes for documents while understanding the processes for parcels.

4.2.4.1 Bag Opening and Receipt Scanning

Activity description

❓ What does a bag opening and receipt scanning unit consist of?

A bag opening unit consists of the following:

Tools/equipments

- One Elephant Stool: for the bag opener to sit
- One Bag Cutter: for cutting the bag lock
- One Remote Bar-code Scanner: to scan the parcels
- One Empty-bag Tray: for stacking empty bags
- One Dustbin: for throwing the bag lock and the bag label having opened the bag
- One Roller Container: One for keeping the parcel after scanning
- One Scanning Table: for keeping the computer
- One Scanning Chair: for the receiver to sit
- One Computer: to enable use of SpeedNet

Manpower

- Group-C/Outsourced Receiver: one for every unit
- Group-D/Outsourced Opener: one for every unit

■ Group-D/Outsourced Assistant: one for every unit

Please see below the photograph of a bag opening and receipt scanning unit

Figure 4.27: Bag opening and receipt scanning unit

⓿ What is the activity flow at a bag opening and receipt scanning unit?

One roller container containing parcel bags will be stationed in the bag opening and receipt scanning area as shown in the photograph below:

Figure 4.28: Roller container containing parcel bags

Following is the activity flow at a bag opening and receipt scanning unit:

STEP 1: The Group-D/Outsourced assistant picks up a bag from the roller container and hands it over to the bag opener sitting on the elephant stool	
STEP 2: The bag opener scans the bag label using the remote bar-code scanner and then throws the bag label in the dustbin	
STEP 3: The bag opener cuts the bag lock using the bag cutter and throws the lock in the dustbin	
STEP 4: The bag opener takes out the parcels from the bag and keeps the empty bag in the Empty-bag Tray lying besides him/her	

STEP 5: The bag opener scans the parcels one-by-one using the remote bar-code scanner	
STEP 6: The receiver sitting on the scanning chair manages the computer and ensures that all parcel bags opened and scanned by the bag opener are received in SpeedNet ('Opening of Bags' option)	
STEP 7: The Group-D/Outsourced assistant picks up the scanned parcels and places them in the roller container (for scanned parcels) stationed nearby	

Exceptions

Following is a list of possible exceptions that a bag opener might face and the corresponding actions he/she should take:

- Damaged bag: Inform the set/shift supervisor about the same but process the bag normally as explained above

- Missing bag label: Inform the set/shift supervisor about the same and process the bag normally as explained above

- Unable to scan the parcel label: Enter the parcel number manually in the system

- **Damaged parcel:** Hand over the damaged parcel to the set/shift supervisor

- **Number of parcels in a bag different from the number mentioned on the manifest:** Inform the set/shift supervisor about the same but process the parcels normally as explained above

- **Documents inside a parcel bag:** Collect such articles in a tray and send them to the receipt scanning unit meant for documents. Inform the set/shift supervisor about the same

Guidelines

Following are the guidelines and ground-rules for a bag opening unit:

- Bags with more number of parcels should be opened at the beginning of the set/shift and ones with single parcel later

- No bag should be on the floor except the one with the bag opener

- No parcel should be on the floor

- Knives should not be used for opening of bags

Norm

- Norm for a bag opening and receipt scanning unit is 40 parcels/hour

4.2.4.2   Sorting

Activity description

⍰ **What does a sorting unit consists of?**

A sorting unit consists of the following:

Tools/equipments

- Array of Roller Containers (one each for every major MMS route): to sort parcels based on MMS routes for both TD and NTD

- One Roller Container: for unsorted parcels

- One Sorting Platform: to do final sorting of parcels

Manpower

- Group-C/Outsourced Sorter: one for every unit

- Group-D/Outsourced Assistant: one for every unit

Please see below the photograph of a sorting unit

FIGURE 4.29: Sorting unit

❷ What is the activity flow at a sorting unit?

Array of roller containers with clear labels of the major MMS routes are stationed in the sorting area (see the photograph below)

FIGURE 4.30: Array of labelled roller containers in the sorting area

Following is the activity flow at a sorting unit:

STEP 1: The Group-D/Outsourced assistant brings a loaded roller container (containing scanned but unsorted parcels) from the bag opening and receipt scanning unit and returns back an empty roller container	

STEP 2: With the help of the sorter, the Group-D/Outsourced assistant sorts the loaded roller container parcels (transfers each parcel to the appropriate roller container) in the array of roller containers labeled with the MMS routes	
STEP 3: The above two steps are repeated until no further parcels are readily available to be transferred to the array of roller containers	REPEAT *above two steps*
STEP 4: Now the Group-D/Outsourced assistant takes one of the labeled roller containers from the array and stations it by the side of the sorting platform	
STEP 5: The Group-D/Outsourced assistant picks the parcels from the roller container one-by-one and places them on the sorting platform as per the sorting directions of the sorter	

STEP 6: The sorter ensures that the placement of parcels on the sorting platform is such that they are sorted/segregated as per their final destinations (NSPCs/PIN codes)	
STEP 7: The Group-D/Outsourced assistant takes back the emptied roller container and stations it at its position in the array of roller containers	
STEP 8: The above four steps are repeated for all labeled roller containers in the array	

Exceptions

Following is a list of possible exceptions that the sorter might face and the corresponding actions he/she should take:

- **Unable to sort the parcel because of illegible address:** Hand-over the parcel to the set/shift supervisor

- **Roller containers in the array heavily loaded but more unsorted parcels available for sorting:** First do segregation on the sorting platform for the heavily loaded roller containers in the array and then resume preliminary sorting of unsorted parcels

- **No space available on the sorting platform:** Continue with preliminary sorting of parcels in the array of roller containers and resume segregation on the sorting platform once space is available

Guidelines

Following are a few guidelines and ground-rules for the receipt scanning unit:

- No parcels should be on the floor

- Roller containers should be stationed in a semi-circular formation to facilitate sorting

Norm

- Norm for sorting is 100 parcels/hour (including both sorting steps – sorting in array of roller containers and segregation on the sorting platform)

4.2.4.3   Dispatch Scanning and Bag Closing

Activity description

❷ What does a dispatch scanning and bag closing unit consist of?

A dispatch scanning and bag closing unit consists of the following:

Tools/equipments

- One Remote Bar-code Scanner: to scan the parcels

- One Elephant Stool: for the bag closer to sit

- One Empty-bag Tray: for keeping stock of empty bags

- One Bag Lock Tray: for keeping stock of bag locks

- One Roller Container: for keeping closed bags

- One Scanning Table: for keeping the computer and the printer

- One Scanning Chair: for the dispatcher to sit

- One Computer: to enable use of SpeedNet

- One Printer: to print the manifest

Manpower

- Group-C/Outsourced Dispatcher: one for every unit

- Group-D/Outsourced Bag Closer: one for every unit

- Group-D/Outsourced Assistant: one for every unit

Please see below the photograph of a dispatch scanning and bag closing unit

FIGURE 4.31: Dispatch scanning and bag closing unit
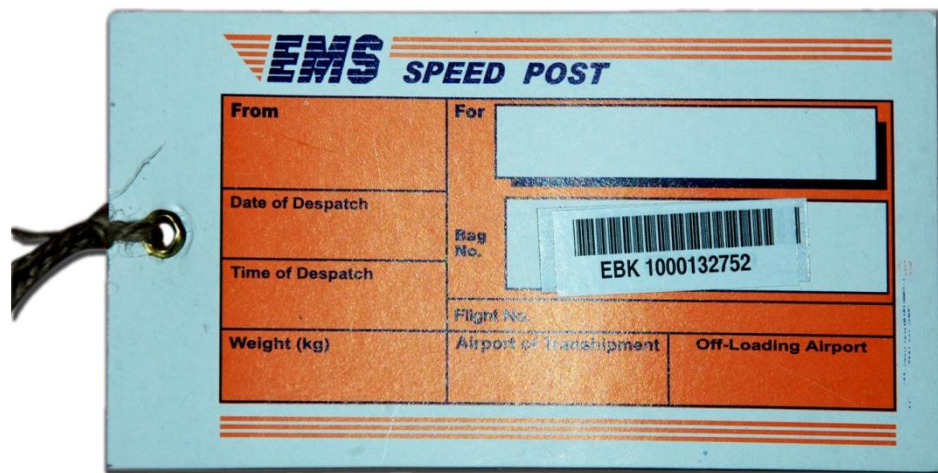
FIGURE 4.32: Sample bag label

Please see below the photograph of a plastic bag lock
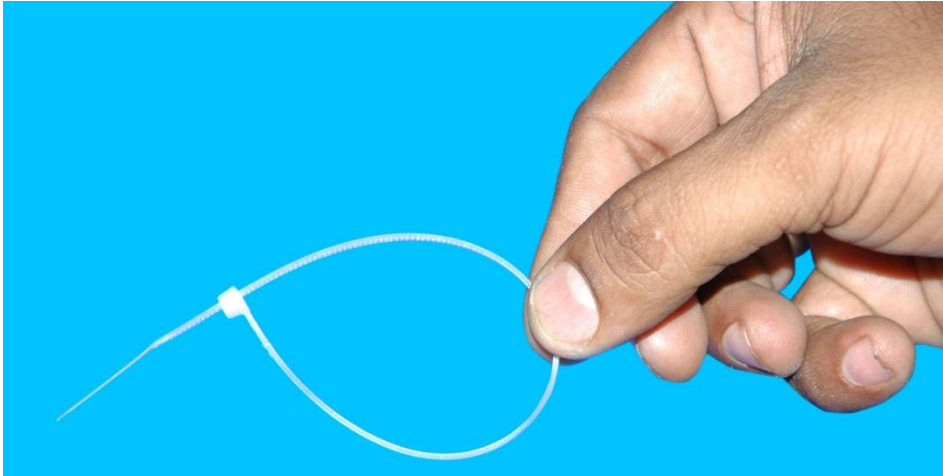
FIGURE 4.33: Bag lock

❷ What is the activity flow of a dispatch scanning and bag closing unit?

The sorting platform (of the sorting unit) is an integral part of the dispatch scanning and the bag closing unit as well since the process of dispatch scanning begins on the sorting platform itself.

Following is the activity flow at a dispatch scanning and bag closing unit:

STEP 1: The Group-D/Outsourced assistant selects one of the segregated parcel piles kept on the sorting platform	
STEP 2: The Group-D/Outsourced assistant scans a parcel from the pile using the remote bar-code scanner	

STEP 3: The dispatcher sitting on the scanning chair manages the computer and ensures that the remote scan done by the assistant is captured in SpeedNet ('Closing of Bags' option)	
STEP 4: The Group-D/Outsourced assistant picks up the parcel from the parcel sorting platform and hands it over to the bag closer sitting on the elephant stool	
STEP 5: The bag closer keeps the parcel in the bag in front of him/her	
STEP 6: The above five steps are repeated till the dispatcher intervenes to close the bag (depending on the weight and size of the parcels inside it)	

STEP 7: The dispatcher closes the bag in SpeedNet, prints the manifest and prepares the bag label	
STEP 8: The dispatcher hands over the manifest and the bag label to the bag closer	
STEP 9: The bag closer picks up a bag lock from the bag lock tray and uses it to close the filled bag	
STEP 10: The bag closer ties the bag label to the bag lock	
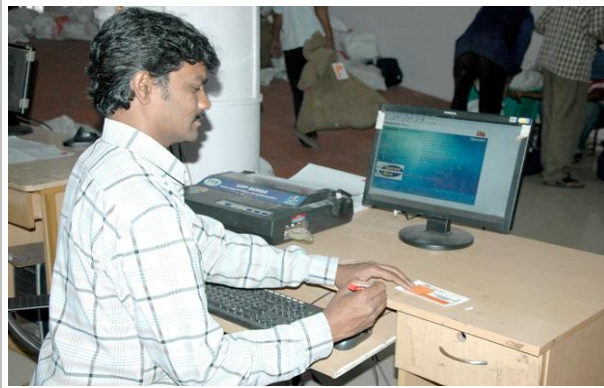
STEP 11: The Group-D/Outsourced assistant picks up the closed bag and keeps it inside the roller container (marked for carrying closed bags) stationed nearby	
STEP 12: The above process continues until all parcels in the parcel pile are bagged. Afterwards, the Group-D/Outsourced assistant selects another parcel pile for dispatching	REPEAT for all parcel piles
STEP 13: Once all bags for a particular MMS route are closed and kept in the roller container, the Group-D/ Outsourced assistant takes the roller container to the dispatch mail agency	
STEP 14: The Group-D/Outsourced assistant transfers the bags to the corresponding roller container (of the same MMS route) at the dispatch mail agency and brings back the emptied roller container	

Exceptions

Following is a list of possible exceptions that a bag opener might face and the corresponding actions he/she should take:

■ **Damaged parcel:** Hand-over the damaged parcel to the set/shift supervisor

■ **Unable to scan the parcel label:** Enter the parcel number manually in the system

■ **Damaged empty bag:** Dispose that bag and use another bag for closing

Guidelines

Following are the guidelines and ground-rules for a bag opening unit:

■ No bag should be on the floor except the one with the bag closer

■ No parcel should be on the floor

Norm

■ Norm for a dispatch scanning and bag closing is 40 parcels/hour

Supervisor's Role

The role of a SPCC supervisor (for parcels) is two fold – (1) ensure strict adherence to the process described above through constant dialogue with the staff; (2) take appropriate actions on exceptions brought to his/her notice.

Following is a list of possible exceptions that might be brought to a Supervisor's notice and the corresponding actions he/she should take:

■ **Damaged bag:** Weigh the bag first and tally it with the weight mentioned on the bag label. In case there is no weight mentioned on the bag label or the actual weight is less than the written weight, open the bag and count the number of parcels inside it. In case the actual number of parcels is less than the parcels mentioned in the manifest, prepare an error report on the bag carrying all details (bag number, source SPCC/Post Office, written and actual weights, parcel numbers of the missing parcels etc.). Send one copy of the report to the origin SPCC (in case the home SPCC is the destination SPCC for that parcel) and file the other copy in the daily error report that is submitted to the SPCC manager.

■ **Missing bag label:** Prepare an error report on the bag carrying all details (bag number taken from the manifest, source SPCC/Post Office, bag weight, parcel numbers of the parcels inside the bag etc.). Send one copy of the report to the origin SPCC (in case the home SPCC is the destination SPCC

for that parcel) and file the other copy in the daily error report that is submitted to the SPCC manager.

■ Damaged parcel: Weigh the parcel first and tally it with the weight mentioned on the slip pasted on the parcel. In case the actual weight is less than the written weight, prepare an error report on the parcel carrying all details (parcel number, origin post office, origin SPCC, destination SPCC, destination post office, written and actual weights, number of the bag in which the parcel was contained etc.). Send one copy of the error report to the origin SPCC (in case the home SPCC is the destination SPCC for that parcel) and file the other copy in the daily error report that is submitted to the SPCC manager. In all cases wrap the parcel properly using a tape and process it normally like any other parcel.

■ Number of parcels in a bag different from the number mentioned on the manifest: Prepare an error report on the bag carrying all details (bag number, source SPCC/Post Office, written and actual weights, parcel numbers of the missing parcels etc.). Send one copy of the report to the origin SPCC (in case the home SPCC is the destination SPCC for that parcel) and file the other copy in the daily error report that is submitted to the SPCC manager.

■ Documents inside a parcel bag: Prepare an error report on the bag carrying all details (bag number, source SPCC/Post Office, bag weight, parcel numbers of the parcels, article numbers of the documents found in the bag etc.). Send one copy of the report to the origin SPCC (in case the home SPCC is the destination SPCC for that parcel) and file the other copy in the daily error report that is submitted to the SPCC manager.

■ Unable to sort the parcel because of illegible address: Check the destination address for the parcel in the system using the parcel number. In case the address is available, write it legibly on the parcel and process the parcel normally like any other parcel. In case the address is not available, arrange to return the parcel to the origin post office and additionally prepare an error report on the parcel carrying all details (parcel number, source SPCC/Post Office etc.). Send one copy of the error report to the origin SPCC (in case the home SPCC is the destination SPCC for that parcel) and file the other copy in the daily error report that is submitted to the SPCC manager.

4.2.5. Standard processes at a BNPL Centre/MBC/BPC/OSA Facility

This section describes the processes at a bulk mail booking/sorting centre. The processes here are a combination of processes at a booking post office and at a SPCC with some important adjustments.

4.2.5.1   Booking

Activity description

⍰ What does a booking unit consist of?

A booking unit consists of the following:

Tools/equipments

■ One Booking Table: for keeping the computer, bar-code scanner, weighing scale, printer and the TD/NTD trays

■ One Booking Chair: for the booking PA/SA to sit

■ One Computer: to enable use of SpeedNet

■ One Bar-code Scanner: to scan the articles

■ One Weighing Scale: to weigh the articles

■ One Printer: to print receipts for the customer

■ One Booking Area Tray: to keep TD articles after booking

■ One Booking Area Tray: to keep NTD articles after booking

Manpower

■ Group-C(PA/SA)/Outsourced Booking staff: one for every booking unit

Please see below the photograph of a booking unit:
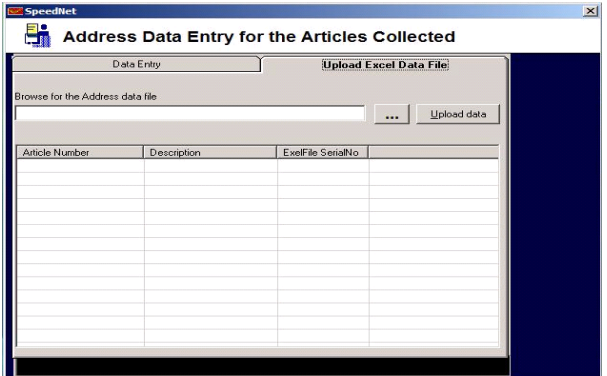
FIGURE 4.34: Booking unit

? How many booking units are required?

One booking unit should be able to handle 40 articles in an hour. For example, if the peak rate of booking at a BNPL centre is 200 articles/hour, then 200/40 = 5 booking units are required.

? What is the activity flow at a booking unit?

Following is the activity flow at a booking unit:

STEP 1: The bulk customer arrives at the booking unit and hands over a stock of articles to the booking PA/SA to be booked under Speed Post	
STEP 2: In case the articles already carry the bar-coded article labels and the customer also provides an excel sheet with article details (srno, article number, name, address, Pincode), then the booking PA/SA simply counts the articles to cross-check with the excel sheet	
STEP 3: The booking PA/SA then uploads the excel sheet in SpeedNet ('Article Address Data Entry' option – 'Upload Excel Data File' tab)	

STEP 4: In case the articles do not carry the article bar code labels, then for every article the booking PA/SA pastes an article bar code label	
STEP 6: The booking PA/SA then enters all details (recipient name, complete address and PIN code) in SpeedNet ('Article Address Data Entry' option – 'Data Entry' tab)	
STEP 7: In either case the booking PA/SA scans all articles using the bar-code scanner in SpeedNet ('Collect BNPL Articles' option)	
STEP 8: The booking PA/SA weighs a bundle of articles using the weighing scale and divides it by the number of articles in the bundle to get the weight per article, which he enters in SpeedNet	

STEP 9: Finally, the booking PA/SA keeps all articles one-by-one in either the TD booking area tray (if an article is destined to a PIN code under the home NSPC) or in the NTD booking area tray (otherwise) kept on the booking table	
STEP 10: The booking PA/SA, while keeping the articles in the trays, ensures that they are faced (arranged in the standing position, one in front of the other, all facing the same side)	

Exceptions

Following is a list of possible exceptions that a booking PA/SA might face and the corresponding actions he/she should take:

- **Damaged article:** Do not book the article and advise the customer to change the article cover

- **Long customer queue at the booking unit:** Request customers to wait but still book all articles in SpeedNet

Guidelines

Following are the guidelines and ground-rules for a booking unit:

- Keep the articles in the correct booking area tray (TD/NTD) after booking

- Do not paste the same article label on 2 different articles

- Constantly encourage the bulk customer to bring articles with bar-coded article labels and provide an excel sheet with article details

Norm

■ Norm for a booking unit is 40 articles/hour (for articles not carrying bar-coded labels before-hand and for which Excel file with details is not provided)

The process flow at a bulk mail centre after 'Booking' depends on whether it is a booking office or a booking office-cum-sorting centre. In case the bulk mail centre is only a booking office, the further process steps are exactly the same as in a booking post office – 'Dispatch Scanning' and 'Bag Closing'. Please refer to the 'Standard Processes at a Booking Post Office' (section 4.2.1.2 and section 4.2.1.3) for details on these process steps.

On the other hand, in case the bulk mail centre is a booking-cum-sorting centre, the further process steps are exactly the same as in a SPCC after 'Receipt Scanning' – 'Sorting', 'Dispatch Scanning' and 'Bag Closing'. Please refer to the 'Standard Processes at a SPCC – for documents' (section 4.2.3.3, section 4.2.3.4 and section 4.2.3.5) for details on these process steps. The only modification that is required in the 'Booking' step in this case is that the TD/NTD booking area trays will be stationed on tray trolleys instead of being kept on the scanning table. Also, for every 5 booking units a Group-D/ Outsourced assistant needs to be provided.

In terms of nomenclature, please note that the booking area trays at a BNPL centre are the same as the sorting area trays at a SPCC, and that the 'booking unit' at a BNPL centre is the same as the 'receipt scanning unit' at a SPCC.

4.2.6. Standard processes at a Mail Agency

This section describes the processes at a mail agency dedicated to Speed Post operations and is situated in the same premises as the SPCC. It covers processes from the time a bag is ready to be opened (receipt segment of mail agency) as well as till the time a bag is closed (dispatch segment of mail agency).

Though the processes at a TMO have not been described in detail in the manual, as far as Speed Post operations at a TMO are concerned, the processes are broadly the same as those in a mail agency.

Concept

The objective behind prescribed processes at a mail agency is two fold – (1) reduce number of handling per bag and (2) keep the mail agency organised so as to minimise mistakes. All process steps – be it unloading of bags directly into roller containers at the receipt mail agency, be it keeping bags pre-sorted by routes in roller containers at the dispatch mail agency or anything else – are driven by these dual objectives. The processes are also designed in a way so

as to reduce the physical strain on the Group-D/Outsourced staff, and thereby increase their productivity.

4.2.6.1   Receipt Mail Agency

Activity description

What does a receipt mail agency consist of?

A receipt mail agency consists of the following:

Tools/equipments

- Nine Roller Containers: one for forward bags, two each for TD, NTD and inbound TD and parcels
- One Remote Bar-code Scanner: to scan the received bags
- One Scanning Table: for keeping the computer
- One Scanning Chair: for the mail agent to sit
- One Computer: to enable use of SpeedNet

Manpower

- One Group-C/Outsourced Mail Agent
- Two Group-D/Outsourced Assistants

Please see below the photograph of a receipt mail agency:

FIGURE 4.35: Receipt mail agency

❷ What is the activity flow at a receipt mail agency?

Roller containers with clear labels of the 5 types of incoming bags (Forward Bags, Parcels, TD, NTD, and Inbound TD) are stationed in the area where the MMS vehicles unload bags (see the photograph below). Corresponding to the TD, NTD and Inbound TD, there are 3 additional roller containers that are stationed between the receipt mail agency and the bag opening units (for documents). Corresponding to parcels, there is 1 additional roller container that is stationed in the parcel area.

FIGURE 4.36: Labelled roller containers in the MMS unloading area

Following is the activity flow at a receipt mail agency:

STEP 1: The MMS vehicle carrying incoming bags stops in the unloading area in such a position that bags can directly be transferred from the MMS vehicle to the stationed roller containers	
STEP 2: One of the Group-D/ Outsourced assistant opens the door of the MMS vehicle and starts scanning the bags one by one using the remote bar-code scanner	
STEP 3: The other Group-D/ Outsourced assistant starts sorting these bags (after they are scanned) into the 5 roller container stationed in the unloading area. Which container a particular bag goes to depends on whether it is a TD, NTD, inbound TD, parcel or forward bag	

STEP 4: The mail agent sitting on the scanning chair manages the computer and ensures that all remote scans done by the assistant are captured in SpeedNet ('Receipt of Bags' option)	
STEP 5: After scanning and transferring all bags to the roller containers, the Group-D/Outsourced assistant closes the doors of the MMS vehicle and signals the driver to depart	
STEP 6: Upon instructions from the mail agent, the Group-D/Outsourced assistants take the roller container labeled 'forward bag' to the dispatch mail agency and bring it back after unloading its bags	
STEP 7: Upon instructions from the mail agent, the Group-D/Outsourced assistants take the roller container labeled 'Parcels' to the parcel area and brings back an empty roller container with the same label	

STEP 8: Upon instructions from the mail agent, the Group-D/OSA assistants take the roller containers labeled 'TD', 'NTD', and 'Inbound TD' inside the SPCC hall and bring back empty roller containers with the same labels

Exceptions

Following is a list of possible exceptions that the assistants might face and the corresponding actions they should take:

- **Unable to scan the bag label:** Enter the bag number manually in the system

- **Unavailability of empty roller container to bring back to the unloading area:** Transfer the bags from the less loaded roller container to the more loaded roller container (both of the same label) and free-up the former to be taken back to the unloading area

Guidelines

Following are a few guidelines and ground-rules for the receipt scanning unit:

- No bags should be unloaded on the floor

- Scanning should be done along with transfer of bags to the respective roller containers

Norm

- Norm for a receipt mail agency is 200 bags/hour

4.2.6.2   Dispatch Mail Agency

Activity description

❓ What does a dispatch mail agency consist of?

A dispatch mail agency consists of the following:

Tools/equipments

- Array of Roller Containers (one each for every major MMS route): to segregate closed bags based on MMS routes

- Two Roller Containers: to transfer bags from mail agency to the MMS vehicles

- One Remote Bar-code Scanner: to scan the closed bags before dispatching

- One Scanning Table: for keeping the computer

- One Scanning Chair: for the mail agent to sit

- One Computer: to enable use of SpeedNet

- One Bag Weighing Scale: to weigh the bags

Manpower

- One Group-C/Outsourced Mail Agent

- Two Group-D/Outsourced Assistants

Please see below the photograph of a dispatch mail agency:

FIGURE 4.37: Dispatch mail agency

What is the activity flow at a dispatch mail agency?

Array of roller containers with clear labels of the major MMS routes are stationed in the dispatch mail agency area (see the photograph below). In addition to these, two roller containers are stationed near the scanning table along with the bag weighing scale.

FIGURE 4.38: Array of labelled roller containers in the dispatch mail agency area

Following is the activity flow at a dispatch mail agency:

STEP 1: One of the Group-D/ Outsourced assistant brings the roller container containing closed bags from the bag closing area (for documents) to the dispatch mail agency area	
STEP 2: With the help of the mail agent, the Group-D/Outsourced assistant sorts the closed bags (transfers each bag in the appropriate roller container) in the array of roller containers labeled with the MMS routes	

Step 3: The Group-D/Outsourced assistant then returns back the emptied roller container to the bag closing area (for documents)	
Step 4: The mail agent also helps the assistant of the receipt mail agency (who brings the roller container with forward bags) and the assistant of the parcel area (who brings the roller container with parcel bags) to sort the bags in the same array of roller containers	
Step 5: Before (duration depends on the number of bags to be dispatched) the departure time of a particular MMS vehicle, upon instructions from the mail agent, one of the Group-D/Outsourced assistant brings the corresponding roller container near the scanning table	
Step 6: One of the Group-D/Outsourced assistant starts scanning the bags one-by-one using the remote bar-code scanner	

STEP 7: The other Group-D/ Outsourced assistant picks up a scanned bag, weighs it on the bag weighing scale and finally keeps it in the empty roller container stationed nearby. He/she does it for all scanned bags	
STEP 8: The mail agent sitting on the scanning chair manages the computer and ensures that the remote scanning done by the assistant is captured in SpeedNet ('Dispatch of Bags' option). He/she also simultaneously enters the weight of each scanned bag in SpeedNet	
STEP 9: Once all bags are scanned, weighed and transferred to the empty roller container, one of the Group-D/Outsourced assistant takes back the labeled roller container to its location in the array	
STEP 10: The other Group-D/ Outsourced assistant takes the roller container which contained filled bags to the MMS loading	

STEP 11: The other Group-D/ Outsourced assistant transfers the bags to the MMS vehicle and brings back the emptied roller container near the scanning table

Exceptions

Following is a list of possible exceptions that the assistants might face and the corresponding actions they should take:

■ Unable to scan the bag label: Enter the bag number manually in the system

■ Multiple MMS vehicle departures at the same time: Keep bags ready for MMS routes before hand in different roller containers

Guidelines

Following are a few guidelines and ground-rules for the receipt scanning unit:

■ No bags should be kept on the floor

■ Scanning and weighing of all bags should be ensured

■ Roller containers should be stationed in a semi-circular formation to facilitate sorting

Norm

■ Norm for a dispatch mail agency is 120 bags/hour

4.2.7. Standard processes at a Delivery Post Office

This section describes the standard processes at a delivery post office from the time bags arrive at the post office (from the SPCC) till the time articles are delivered to the recipients and the delivery is captured in SpeedNet.

4.2.7.1   Bag Opening

Activity description

❷ What does a bag opening unit consist of?

A bag opening unit consists of the following:

Tools/equipments

■   One Elephant Stool: for the bag opener to sit

■   One Bag Cutter: for cutting the bag lock

■   One Empty-bag Tray: for stacking empty bags

■   One Dustbin: for throwing the bag lock

■   Scanning Area Trays: to empty the contents (articles, manifest and label) of the bag

Manpower

■   Group-D/Outsourced Bag Opener: one for every bag opening unit

Please see below the photograph of a bag opening unit:

FIGURE 4.39: Bag opening unit

What is the activity flow at a bag opening unit?

Following is the activity flow at a bag opening unit:

STEP 1: The bag opener brings the bags received from the SPCC near his bag opening unit	
STEP 2: The bag opener brings one bag close to the elephant stool and sits on the stool	
STEP 3: The bag opener cuts the bag lock using the bag cutter and throws the lock in the dustbin	
STEP 4: The bag opener takes out the articles from the bag and puts them (along with the manifest and the bag label) inside the scanning area tray lying beside him/her	

STEP 5: The bag opener puts the empty bag inside the Empty-bag Tray lying beside him/her	
STEP 6: The bag opener faces (arranges articles in the standing position, one in front of the other, all facing the same side) all the articles inside the scanning area tray	
STEP 7: The bag opener picks up the filled scanning area tray and takes it to a receipt scanning unit	
STEP 8: The bag opener picks up the empty scanning area tray (if any) from the receipt scanning unit and stacks it near his/her elephant stool	

STEP 9: The bag opener repeats the above steps for all bags that are to be opened	**REPEAT** *above steps for all bags*

Exceptions

Following is a list of possible exceptions that a bag opener might face and the corresponding actions he/she should take:

■ Missing bag label: Inform the supervisor about the same but process the bag normally as explained above

■ Damaged bag: Inform the supervisor about the same but process the bag normally as explained above

■ Articles from a bag not fitting in a single scanning area tray: Use multiple trays but ensure that they go to the same receipt scanning unit

Guidelines

Following are the guidelines and ground-rules for a bag opening unit:

■ Bigger bags should be opened first and the small ones later

■ No articles should be on the floor

■ Knives should not be used for opening of bags

Norm

■ Norm for a bag opening unit is 30 bags/hour, i.e., 30 seconds for the opening a bag, 60 seconds for facing the articles in the scanning area tray and 30 seconds for giving the scanning area tray to the receipt scanning unit.

4.2.7.2   Receipt Scanning

Activity description

❷ What does a receipt scanning unit consist of?

A receipt scanning unit consists of the following:

Tools/equipments

■ One Scanning Table: for keeping the computer, bar-code scanner and the scanning area tray

■ One Scanning Chair: for the scanning official to sit

■ One Computer: to enable use of SpeedNet

■ One Bar-code Scanner: to scan the articles

■ One Scanning Area Tray: received from the bag opening unit

■ One Tray Trolley with a Sorting Area Tray: to keep the articles after scanning

■ One Dustbin: for throwing the bag label

Manpower

■ Group-C/Outsourced scanning staff: one for every unit

Please see below the photograph of a receipt scanning unit:

FIGURE 4.40: Receipt scanning unit

❷ What is the activity flow at a receipt scanning unit?

Following is the activity flow at a receipt scanning unit:

STEP 1: The bag opener keeps a scanning area tray (containing faced articles from a bag, bag label and the manifest) on the scanning table of the receipt scanning unit	
STEP 2: The scanning official puts the manifest inside the computer table drawer	
STEP 3: The scanning official first scans the bag label and then throws it inside the dustbin	
STEP 4: The scanning official scans all articles in the scanning area tray in SpeedNet ('Opening of Bags' option) one-by-one using the bar-code scanner. He/she ensures that the facing of the articles is not disturbed while scanning	

STEP 5: The scanning official puts all scanned articles (maintaining their facing) in the empty sorting area tray sitting on the tray trolley beside him/her	
STEP 6: A postman takes the tray trolley with the sorting area tray kept on it to a beat sorting area	
STEP 7: The postman brings back a tray trolley with an empty sorting area tray and parks it beside the scanning chair on which the scanning official is sitting	

Exceptions

Following is a list of possible exceptions that a scanning official might face and the corresponding actions he/she should take:

- Damaged article: Hand-over the damaged article to the supervisor

- Unable to scan the article label: Enter the article number manually in the system

- Number of articles in a bag different from the number mentioned on the manifest: Inform the supervisor about the same but process the articles normally as explained above

■ **Articles from a bag not fitting in a single sorting area tray:** Keep the filled sorting area tray on the lower level of the tray trolley and request the bag opener to get another tray (which can now be kept on the top level of the tray trolley) for the remaining articles.

Guidelines

Following are a few guidelines and ground-rules for the receipt scanning unit:

■ Articles should be scanned individually and not through virtual scanning

■ The scanning official should not get up for tray movement and instead use the bag opener for the same

■ Scanning table should be checked for any loose articles after completing scans of all articles from a single bag

Norm

■ Norm for a receipt scanning unit is 1,800 articles/hour

4.2.7.3 Pre-delivery Activities by Postmen

The sorting postmen do beat sorting of articles brought from the receipt scanning unit. After beat sorting, each postman picks up articles corresponding to his beat and gets a dispatch scan of these articles done through a Group-C (PA)/Outsourced scanning official of the dispatch scanning unit (similar to a receipt scanning unit). In the process of dispatch scanning, a delivery manifest is generated for the postman to be taken along in his delivery beat. Once the dispatch scan is done and the manifest is generated, the delivery postman 'faces' the articles and arranges them in the order in which he would be delivering them (depends on the route he follows in his beat). He then leaves for the delivery of articles in his beat.

4.2.7.4 Delivery Record

Once a postman returns from his delivery round, he enters in SpeedNet (with assistance from a postal assistant) the delivery status of all articles in his delivery manifest. For articles which were not successfully delivered, he selects the reason for non-delivery as well. Undelivered articles are again attempted for delivery the subsequent day. This last step in the entire chain of process steps for a Speed Post article is extremely important as it ensures that the article lifecycle is 'closed' in the systems as well and not just physically on ground.

Supervisor's Role

The role of a post office supervisor is two fold – (1) ensure strict adherence to the process described above through constant dialogue with the staff; (2) take appropriate actions on exceptions brought to his/her notice.

Following is a list of possible exceptions that might be brought to a supervisor's notice and the corresponding actions he/she should take:

- **Missing bag label:** Prepare an error report on the bag carrying all details (bag number taken from the manifest, bag weight, article numbers of the articles inside the bag etc.). Send one copy of the report to the home SPCC and file the other copy in the daily error report that is submitted to the postmaster.

- **Damaged bag:** Weigh the bag first and tally it with the weight mentioned on the bag label. In case there is no weight mentioned on the bag label or the actual weight is less than the written weight, open the bag and count the number of articles inside it. In case the actual number of articles is less than the articles mentioned in the manifest, prepare an error report on the bag carrying all details (bag number, written and actual weights, article numbers of the missing articles etc.). Send one copy of the report to the home SPCC and file the other copy in the daily error report that is submitted to the postmaster.

- **Damaged article:** Weigh the article first and tally it with the weight mentioned on the slip pasted on the article. In case the actual weight is less than the written weight, prepare an error report on the article carrying all details (article number, origin post office, origin SPCC, destination SPCC, written and actual weights, number of the bag in which the article was contained etc.). Send one copy of the error report to the home SPCC and file the other copy in the daily error report that is submitted to the postmaster. In all cases wrap the article properly using a tape and process it normally like any other article.

- **Number of articles in a bag different from the number mentioned on the manifest:** Prepare an error report on the bag carrying all details (bag number, written and actual weights, article numbers of the missing articles etc.). Send one copy of the report to the home SPCC and file the other copy in the daily error report that is submitted to the postmaster.

4.3. Network Schedule

Network schedule refers to the timings at which various activities take place in the movement of articles from booking post offices, SPCCs, TMOs, mail agencies, MMS, BNPLs/BPCs/MBCs/OSA facilities and delivery post offices across cities. These timings have to be such that the overall quality of mail

delivery gets improved. "Network perspective" as opposed to "city perspective" can help optimise these timings for better quality. It is this "network perspective" that is the cornerstone guiding this section of the manual.

This section has the following four focus areas:

■ Collection (rounds) from Booking Post Offices: How often should Booking Post Offices send Speed Post articles to the SPCC and at what times?

■ Set/Shift planning at SPCC: How to match manpower to processing volumes? How to select the right processing windows for the different types of Speed Post articles?

■ Inter-city mail movements: How to determine the most appropriate flight/ train/road transport for sending Speed Post article to other SPCCs?

■ Delivery rounds from SPCC to Delivery Post Offices: How often should SPCC send processed Speed Post articles for delivery to the Delivery Post Offices and at what times?

4.3.1. Collection rounds from Booking Post Offices

Concept

The collection round refers to a trip of MMS vehicle from a SPCC to all/selected booking post offices to collect Speed Post articles booked up to a designated point of time and bring them to the SPCC for processing (sorting). Usually articles booked during a day are collected at the end of the day. The idea that drives this section is that in order to fully utilise the capacity of a SPCC (especially during the lean afternoon hours), it would be useful to do intra-day collection of articles from selected post offices. Such an arrangement has to be feasible in terms of availability of MMSs during day time, distances of post offices from the SPCC etc. Also, the arrangement has to be optimised for maximum utilisation of SPCC with minimum additional burden in term of MMS trips for collection rounds.

Description

Before proceeding, it is important to note that all booking post offices linked to a particular SPCC will most likely not have the same number of collection rounds. Bigger post offices and post offices closer to the SPCC are expected to have more collection rounds as compared to others. Secondly, the prescribed number of collection rounds for a SPCC depends on the type of SPCC.

For this purpose SPCCs have been classified into two categories here:

■ Urban SPCC: A SPCC that is located in a city/town with a population of more that 5 lakhs is classified as an urban SPCC. It is possible that an urban SPCC also caters to post offices that lie outside the city/town limits i.e., in non-urban areas.

■ Rural SPCC: Any SPCC that is not an urban SPCC is classified as rural SPCC.

② How many collection rounds should an urban SPCC have?

An urban SPCC should ideally have 3 collection rounds:

■ End-of-day collection round from all post offices linked to that SPCC. MMS vehicles in this collection round should reach the post offices at around 4 pm (time at which most post offices close retail counter bookings) and pick up all Speed Post articles booked since the last collection round. It would not be possible for MMS vehicles to reach all post offices at 4 pm since the same MMS vehicle would be picking up articles from more than one post office.

■ Intra-day collection round from all post offices that lie within the city/town limits. In case the number of such post offices exceeds 30, then the intra-day collection round should cater to only the top 30 post offices in terms of booking volumes. MMS vehicles in this collection round should reach the post offices between 12 noon and 1 pm and pick up all Speed Post articles booked since the last collection round on the previous day.

■ Late evening collection round from all post offices (if any) that accept bookings from bulk customers till late in the evening. MMS vehicles in this collection round should reach these post offices at around 7 pm and pick up all Speed Post articles booked since the last collection round. Please note that since the number of post offices covered in this collection round will be very few, each MMS vehicle will have to cater to lesser number of post offices. Also, it should be an endeavour of these post offices to work with the bulk customers and encourage them to provide their bookings as early in the day as possible. This might also require sending post office staff to pick up Speed Post articles from the bulk customers in the afternoon. The later a booking is made, more difficult it becomes for it to be connected to the destination SPCC the same day.

② How many collection rounds should a rural SPCC have?

A rural SPCC should have only 1 collection round:

■ End-of-day collection round from all post offices linked to that SPCC. MMS vehicles in this collection round should reach the post offices at around 4 pm (time at which most post offices close retail counter bookings) and pick up all Speed Post articles booked since the previous day collection round. It would not be possible for MMS vehicle to reach all post offices at 4 pm since the same MMS vehicle would will be picking up articles from multiple post offices.

In case there are a few high volume post offices close to the SPCC, then one MMS vehicle can be arranged to pick up Speed Post articles from these post offices between noon and 1 pm to ensure better utilisation of the SPCC during the afternoon lean hours.

Enablers

Following are a bunch of guidelines that can act as enablers to ensure that complete benefits of the collection rounds are derived:

- The collection rounds prescribed above should be dedicated to Speed Post (especially for urban SPCCs) and not mixed with first class mail.

- To ensure that articles in a collection round reach the SPCC at the earliest, the trip for each MMS vehicle in that collection round should start from the farthest (from SPCC) post office in its route and end with the nearest post office.

- The number of post offices that a MMS vehicle covers in a collection round should be such that the MMS vehicle is able to reach the SPCC in time to leave for the subsequent collection round (if any) and also in time for the articles to be processed at the SPCC. Please note that this has an implication on the number of MMS vehicles that will be required by the SPCC.

- Post offices should keep their Speed Post bags ready at the time the MMS vehicle is expected to arrive and load them on to the MMS vehicle as soon as it arrives. The MMS vehicle is the most critical resource in any collection round and it should not be kept waiting once it has reached a particular post office for collection.

- As mentioned in the section on processes at a booking post office, it would be important that post offices close separate bags for TD and NTD articles for the SPCC.

4.3.2. Set/Shift planning in SPCC

Concept

At a conceptual level, there are two aspects to set/shift planning at a SPCC:

1. Determining the right 'processing windows' for different types of articles,

2. Matching manpower to processing volumes in every set/shift

Starting with the first aspect, it is critical to determine the right processing windows (or time-slots) for different types of articles so as to maximise quality

and share of targeted next day delivery mail. The three categories of articles that need to be processed at any SPCC are the following:

- **Local Town Delivery (Local TD):** Articles booked in a post office or BNPL centre/BPC/OSA facility mapped to the home SPCC, meant for delivery in a post office also mapped to the home SPCC, e.g., articles booked in Kolkata and for delivery in Kolkata.

- **Non Town Delivery (NTD):** Articles booked in a post office or BNPL centre/BPC/OSA facility mapped to the home SPCC, meant for delivery in a post office mapped to some other SPCC, e.g., articles booked in Kolkata for delivery in Chennai (assuming Kolkata to be the home SPCC)

- **Inbound Town Delivery (Inbound TD):** Articles booked in a post office or a BNPL centre/BPC/OSA facility mapped to some other SPCC, meant for delivery in a post office mapped to the home SPCC, e.g., articles booked in Chennai for delivery in Kolkata (assuming Kolkata to be the home SPCC).

The concept which has to be followed for processing Speed Post articles is highlighted in the figure below. In general, NTD articles should get processed with priority in the afternoon and early evening in order to meet connecting flights/trains in the evening (see section 4.3.3 on inter-city connections). While "waiting" for Inbound TD articles from other SPCCs – which would be late evening and early morning – Local TD articles should get processed. Subsequently, Inbound TD articles can be processed at the end.
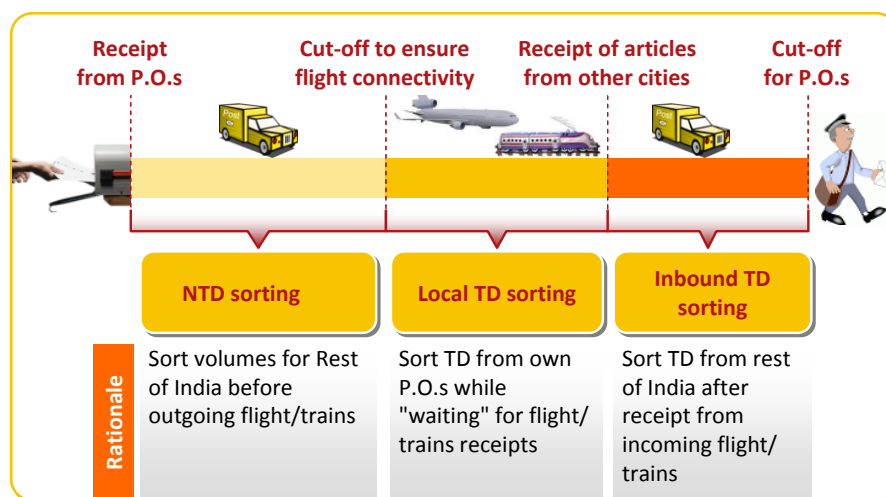

FIGURE 4.41: Dedicated processing windows

It is important to note that the processing windows (for the three categories of articles) mentioned above are 'dedicated'. This means that at any point in time at a SPCC, either NTD, or Local TD, or Inbound TD should get processed and not all (or any two) of them at the same time.

One enabler to be able to implement the above concept is to ensure that all booking post offices and BNPL centre/BPC/OSA facility send separate TD and NTD bags to the SPCC. This will allow the SPCC to prioritise the bags as per processing windows. Please refer to section 4.2.1 on the exact processes to be followed in the booking post office.

The second aspect of set/shift planning as mentioned earlier is matching manpower with processing volumes. This allows for more stability in the network and reduces variability in quality. In order to do proactive manpower planning, the volume that is likely to get processed during the upcoming sets/shifts has to be estimated. Some easy-to-use advice on this is provided in this section. Once the processing volume has been estimated, staff requirement can be determined using the norms given in this manual in the respective sections. Lastly, but most importantly, in order to match manpower with processing volume it is imperative that the staff reports to duty on time for their set/shift.

Determining the right 'processing windows' for different types of articles

Following up on the concept of dedicated 'processing windows' (or time-slots) for the three categories (NTD, Local TD and Inbound TD) of articles, we now go to the specifics.

❓ What should be the processing windows for NTD, Local TD and Inbound TD?

The concrete time-slots as to when to sort the 3 different types of articles depend on many inputs such as timings of pre-collection rounds, flight/train schedules, processing throughput at the SPCC etc. For the 6 metro cities (Delhi, Mumbai, Kolkata, Chennai, Bangalore and Hyderabad), a dedicated network model was developed with all these inputs to determine processing windows that maximise next day delivery of Speed Post articles. The logic behind the model also forms the basis for deriving the set/shift timings for the SPCCs in other cities.

■ NTD processing windows: The objective here should be to send out as many articles as possible for next day delivery to other SPCCs. As a rule of thumb, direct flights in the time window between 20:00 and 24:00 should be taken to allow for next day delivery in the metros. As the majority of volume gets delivered in the 6 metros, this also builds the basis for optimising the time windows. NTD articles, should, therefore be processed in the time window between 15:00 and 22:00. Please note that this is just an indicative window and concrete timings (start, end and duration of NTD processing) need to be optimised for each SPCC.

- ■ Local TD processing windows: The objective here should be to use the time window between despatch of articles (NTD) to other SPCCs and receipt of articles (Inbound TD) from other SPCCs for processing of Local TD articles. Therefore, as an indication, TD articles should be processed in the time window between 22:00 and 06:00 hours.[2] The later part of the same time window should be used for processing of Inbound TD articles. Please note that this is just an indicative window and concrete timings (start, end and duration of Local TD processing) need to be optimised for each SPCC.

- ■ Inbound TD processing windows: Once articles are received from other SPCCs late night/ at early morning, the objective is to process them instantly so that they are included in the delivery the same day. Inbound TD articles, therefore, should be processed in the later part of the time window for Local TD articles, i.e., between 22:00 and 06:00 hours,[2] after completion of processing of Local TD articles. Please note that this is just an indicative window and concrete timings (start, end and duration of Inbound TD processing) need to be optimised for each SPCC.

Remainder of the time should be used for – (1) processing of left-over NTD articles that could not be processed before the start of Local TD processing window in the previous night, and (2) processing of left-over Inbound TD articles that could not be processed before the delivery rounds in the morning.

The best way to introduce the dedicated processing windows is to align the set/shift timings with these processing windows. This will require a mindset change, where the field staff will have to unlearn thinking in terms of the conventional 'Set I'/'Set II'/'Batch' etc., and start thinking in terms of 'NTD Set'/'Local TD Set'/'Inbound TD Set' etc.

Ideally, if all prescriptions are followed closely, there will be an idle time window during which there will be no articles to be processed at the SPCC.

✷ Who should finalise the concrete processing windows?

The planning of concrete processing windows for the 3 categories of articles should be done by the Director in-charge of the SPCC. The Director should follow the guidelines mentioned above and consult the SPCC manager before finalising the processing windows. The arrival times of articles (from other SPCCs through flights/trains/road transport and from post offices through MMS vehicle collection rounds) and the departure times of articles (to other SPCCs

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[2]   Please note that this time window gets extended to ~1100 hours for urban SPCCs where a second delivery round is prescribed. This holds true exclusively in the 6 metros such arrangement exists at present.

through flight/trains/road transport and to post offices through MMS vehicle delivery rounds) should be the most important factors in finalising the concrete processing windows.

On the shop floor at the SPCC hall, the supervisor will be responsible to ensure that articles are processed within the specified processing windows.

⊘ What if the NTD processing window is complete but there are still NTD articles waiting to be processed?

Since after the end of the processing window for NTD articles, next day delivery is not possible, the supervisor has to ensure that processing is switched from NTD to Local TD even if there are remaining NTD articles waiting to be processed. These remaining articles should be processed after completion of processing of all TD articles. The supervisor in such a situation should do the following:

- Advise bag openers to stop opening of NTD bags and move to opening of Local TD bags.

- Advise scanning officials to finish receipt scanning of NTD articles received from bag openers. Scanning officials who have finished scanning NTD articles should start receipt scanning for Local TD articles.

- Ensure that the prescribed cut-off (for flight/train) is met and most NTD articles from all sorting cases get the dispatch scan and are bagged for their corresponding destinations.

- For NTD articles which still remain in the sorting cases, advise an assistant to transfer these articles to the corresponding pigeon holes of a single sorting case which can be manned by one sorter.

- Advise one sorter to sort all the remaining NTD articles for which bags have been opened, receipt scanning has been done but sorting has not yet happened. This can happen in the same sorting case in which sorted NTD articles have been consolidated.

- Once all opened and scanned NTD articles have been sorted, leave these articles in the one dedicated sorting case.

Start again with opening of NTD bags and their respective processing after completion of processing of all TD articles in the morning. At that time, the supervisor has to ensure that all these remaining NTD articles are processed and sent with the next possible flight/train/road transport to the destination SPCCs in the morning/afternoon itself.

Matching manpower to processing volumes in every set/shift

There are three steps in the manpower planning process at a SPCC – volume estimation, throughput (number of articles to be processed per hour at the SPCC) calculation, and finally manpower determination. Here we go into the specifics of each of these steps.

When and how should the daily volumes be estimated?

Analysis for the estimation of daily volumes for the coming financial year should be done in the month of March every year. For this purpose, on 1st March every year, all Directors responsible for any SPCC across the country should prepare a data sheet comprising (for every SPCC under their purview) the daily NTD, Local TD and Inbound TD volumes for every day in the previous 12 months.

Using this data, the Directors for their SPCC should calculate (for every month separately) the average daily volume for each category of articles – NTD, Local TD and Inbound TD. For example, the average daily volume of NTD articles for the month of March should be calculated by taking the average of NTD volumes for the 31 days in March from the data provided. This analysis will capture the seasonal variation in mail volumes (see the illustration below).
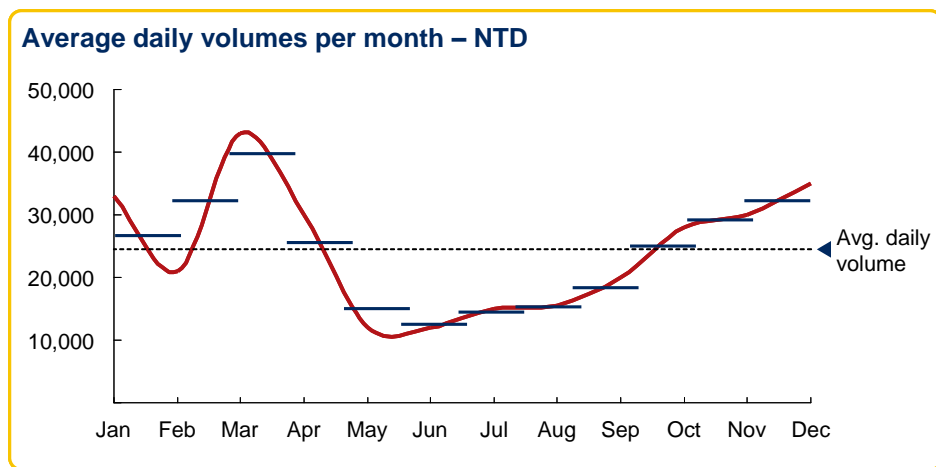
FIGURE 4.42: Seasonal variation in volumes

Next, the Directors should calculate (for each day of the week separately) the average daily volume for each category of articles – NTD, Local TD and Inbound TD – and index it to the average across weekdays. For example, the average daily volume of NTD articles for Tuesday should be calculated by taking the average of NTD volumes for the 56 Tuesdays from the data collected. Also the average daily volume of NTD articles across weekdays should be calculated by taking the average of NTD volumes for all the 365 days from the data collected. Finally, the NTD index for Tuesday should be calculated as follows:

$$\frac{\text{NTD Index (Tuesday)}}{100} = \frac{\text{Average NTD Volumes (Tuesday)}}{\text{Average NTD Volumes (Across Weekdays)}}$$

This analysis will capture the volume spread across weekdays (see the illustration below)

Average daily volume per weekday (indexed) – NTD
Percent

Monday 93 Tuesday 105 Wednesday 112 Thursday 121 Friday 150 Saturday 85 Sunday 34 — 100
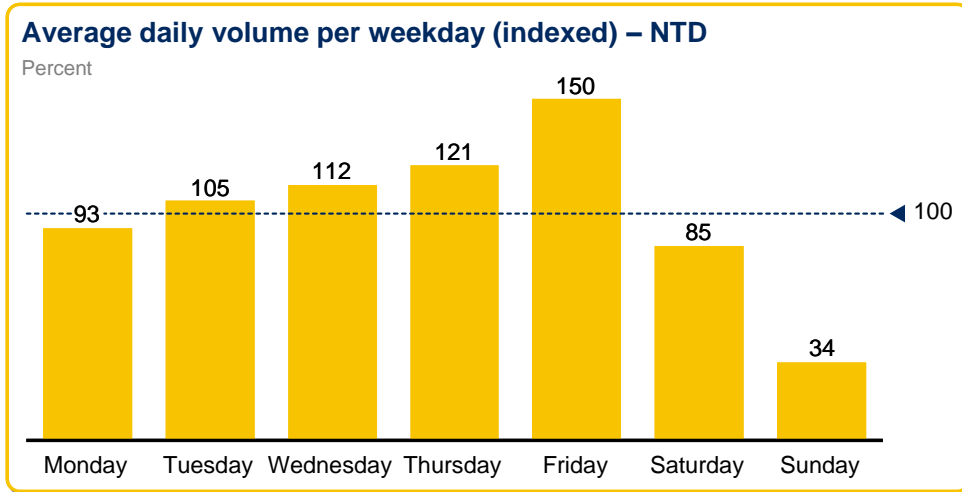
FIGURE 4.43: Volume spread across weekdays

Next, the Directors should calculate for every day in the coming financial year, the expected daily volumes for each category of articles – NTD, Local TD and Inbound TD – in the same way as the depicted in the illustration below:

Expected volume calculation – NTD

Task
Estimate volume for NTD processing window on Tuesday – Feb 3

Average daily NTD volume in February
22,000

Average daily NTD volume on Tuesday (indexed)
121%

X

Estimated volume for NTD processing window
26,620

FIGURE 4.44: Expected daily volume calculation

Finally, the Directors should mark up the expected average daily volumes by 20% to account for year-on-year increase in volume and to build some margin in term of manpower planning.

By following the above steps, in the month of March every year, the SPCCs will have the estimates of daily volumes for each of the 365 days of the next financial year.

Note: If additional information on top of the historic data is available at the time of manpower planning (e.g., a bulk customer pre-announced an extra 10,000 articles for a specific day) then that information should be taken into account and the estimated volumes adjusted accordingly.

Special Bookings: Some of the SPCCs are also required to undertake special seasonal bookings from corporate customers (e.g., examination bodies). For this purpose, the Directors and Manager SPCC concerned should, based on the calendar of annual bookings received from such customer, estimate the number of articles likely to be booked. The same should also be incorporated in the seasonal variations in volumes.

❓ When and how should the throughput be calculated?

Throughput calculation should be done by the SPCC manager on a weekly basis. For each day of the week, the SPCC manager should calculate the throughput required in each of the 3 processing windows (NTD, Local TD and Inbound TD) by dividing the volume estimated for a particular category of articles for a particular day by the number of hours in the corresponding processing window. For example, the throughput required in the NTD processing window on Tuesday (Feb 3) should be calculated using the following formula:

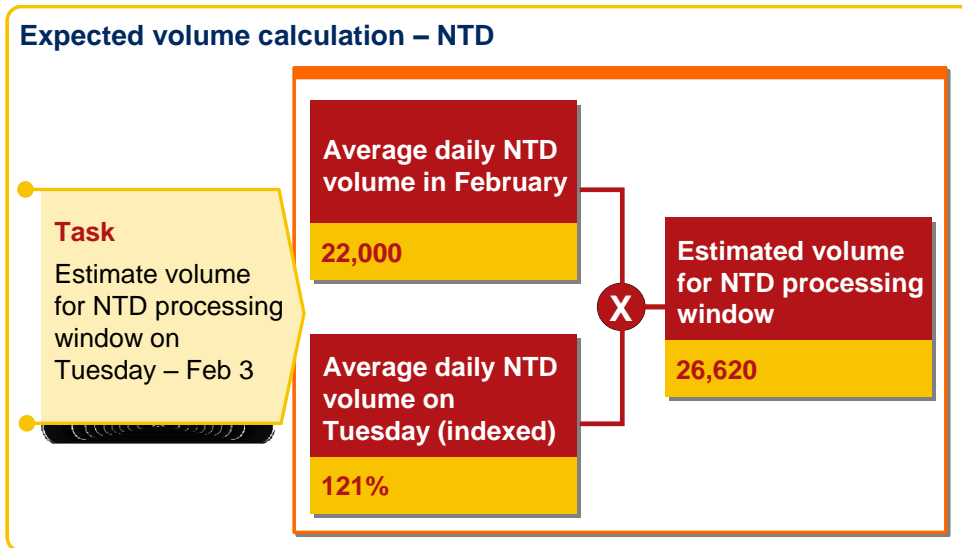$$\text{NTD Throughput (Tuesday – Feb 3)} = \frac{\text{Estimated Volume (Tuesday – Feb 3)}}{\text{No. of hours in the NTD Processing Window}}$$

❓ When and how should the manpower be determined?

Manpower planning should also be done by the SPCC manager on a weekly basis after calculating the throughput required in each processing window on every day of the coming week. Once throughput (which represents the number of articles processed per hour at the SPCC) of a particular processing window is known, the manpower required in that window at each processing step (bag opening, receipt scanning etc.) can easily be determined based on the norms provided in section 4.2.3 and 4.2.4.

For example, let us assume that the throughput calculated for a particular processing window on a particular day is 4,000 articles/hour. Then based on the norm for receipt scanning explained in section 4.2.3.2 (1,800 articles/hour), 4,000/1,800 = 3 receipt scanning units would be required to be functional. This means that 3 Group-C/Outsourced scanning officials and 1 Group-

D/Outsourced assistant would be required for that particular processing window on that day. In similar way, manpower required for other processing steps can also be determined.

Manpower planning for special booking: As already mentioned, some SPCCs are required to undertake seasonal special bookings from corporate customers. In certain cases, the Department has to deploy adequate manpower at the customer's premises during the entire booking period (e.g., UPSC, CBSE bookings undertaken by SPCC Delhi). For this purpose, based on the booking calendar provided by such customers, the Director and Manager SPCC concerned should do advance manpower planning in such a manner that the availability of manpower for processing at their SPCC is not adversely affected.

4.3.3. Inter-city mail movement (flights/trains/MMSs)

This section provides guidance on selection of appropriate flights/trains by a SPCC to send NTD Speed Post articles to various other SPCCs in order to maximise next day delivery.

Concept

Selection of appropriate flights/trains depends on a number of inputs such as flight and train schedules, loading/unloading times at origin/destination airports and railway stations, collection rounds and throughput at the home SPCC, delivery round timings (whether second delivery round is in place or not) and throughputs at destination SPCCs etc. For the 6 metro cities (Delhi, Mumbai, Kolkata, Chennai, Bangalore and Hyderabad), a dedicated network model was developed with all these inputs to determine the inter-metro flights that could maximise next day delivery of Speed Post articles. The logic behind the model also forms the basis of providing guidance on selection of appropriate flight/train by the other SPCCs.

Selection of appropriate flights/trains

Selection of appropriate flight/train by a SPCC for all other SPCCs needs to be done on a case by case basis as per directions provided in this section.

❷ How to select the most appropriate flight/train for a particular destination SPCC?

It is possible to work backwards from the delivery round timing at the destination SPCC to arrive at the most appropriate flight/train for that SPCC, by following the steps laid down below:

■ Figure out the time at which MMS vehicles leave the destination SPCC for delivery. This can be done by referring to section 4.3.4 of this manual. Confirm the time by contacting the SPCC manager or the Director in-charge of the destination SPCC.

■ As a rule of thumb, please assume that articles need to reach the destination SPCC at least 2 hours before the delivery round time. Inquire from the SPCC manager of the destination SPCC about the rough throughput of his/her SPCC to figure out if the 2 hour assumption is realistic. If not, then modify this assumption accordingly.

■ Also inquire from the SPCC manager about the time it takes for the centre to unload the bags and bring them to the SPCC once they have arrived at the airport/railway station (as the case may be). Add this time to the 2 hour (or adjusted) duration.

■ Subtract this total time duration from the delivery round time at the destination SPCC to determine the latest time by which the flight/train needs to reach the destination city/town.

■ Study the flights/train schedule to figure out the last connection that can be taken to meet the arrival deadline at the destination city/town

■ Subtract from the departure time (from home city/town) of the chosen flight/train connection the time it takes to load bags to the flight/train and the time it takes to reach the airport/railway station from the origin (home) SPCC.

The time thus worked out is the cut-off time for the origin SPCC for sending NTD Speed Post articles to the particular destination SPCC. The corresponding flight/train determined in the process is the latest connection that should be taken in order to have a realistic chance of next day delivery of the articles.

Following is an example of the logic explained above:

Let us assume that the time at which MMS vehicles leave the destination SPCC for delivery is 06:00 hours and the throughput of the destination SPCC is sufficient to process the articles in 2 hours. Also, assume that it takes 0.5 hours to unload the bags from the aircraft (assuming flight connectivity between the two cities) and 1.5 hours to take articles from the airport to the destination SPCC. Subtracting [2 + 0.5 + 1.5] hours from 06:00 gives 02:00. This means that the bags need to land at the destination city latest by 02:00 hours. Now let us assume that the last flight between the origin city and the destination city that lands before 02:00 hours is 'IC 101' which departs from the origin city at 23:00 hours and lands at the destination city at 01:30 hours. Also assume that the airport in the origin city is 1 hour away from the SPCC, and it takes another 1 hour to load the bags on to the aircraft. Subtracting [1 + 1] hours from 23:00

gives 21:00. This means that 21:00 hours is the cut-off time for the origin SPCC for sending NTD Speed Post articles to the destination SPCC. Also 'IC 101' is the latest flight that should be taken in order to have a realistic chance of next day delivery of the articles.

Please note that any connection that reaches the destination city/town before the selected flight/train will help significantly to ease the pressure on the destination SPCC and increase chances of next day delivery of the articles. Therefore, earlier the flight/train, the better it is from the destination SPCC perspective. However, there is a trade-off here with the number of articles that can be processed and connected on an earlier flight/train by the origin SPCC. It is possible that the origin SPCC is either unable to collect or unable to process a significant portion of the NTD articles for connecting to the earlier flight/train in case it is too early in the evening. Therefore, the selection of the most appropriate flight/train needs to be done keeping in mind this trade-off.

❓ What special cases need to be kept in mind?

While doing the backward calculations for determining the most appropriate flight/train for a particular destination SPCC, it is possible that some special cases might arise. Here is a list of such special cases and the corresponding course of action:

- **No direct flight/train to the destination city:** Consider connecting flights/trains but remember to incorporate the additional legs (at the intermediate airport/railway station etc.) in the backward calculation.

- **End-to-end road travel faster than flight/train:** Consider road travel as an alternate mode of transport and adapt backward calculation accordingly. Assume an average road speed of 35 km/hr for the calculation purposes

- **Calculated cut-off time early in the evening leading to low percentage of articles being connected:** Take the latest possible flight/train as per the backward calculation. For articles that are unable to get connected, send them across through another flight/train next day morning/afternoon. Please note that as mentioned earlier, such left-over articles should only be processed after completion of processing of all TD articles.

Please also remember that selection of the appropriate flights/trains and the corresponding cut-off times are the most important inputs in deciding the concrete processing windows for the different categories of articles discussed in the previous section.

4.3.4. Delivery rounds from SPCC to Delivery Post Offices

Concept

Delivery round refers to a trip of MMS vehicles from a SPCC to all/selected delivery post offices to deliver Speed Post articles that have been processed at the SPCC up to that point of time. This, of course, is supported by delivery of these Speed Post articles from the delivery post offices to the recipients by the post men or by GDSs (Gramin Dak Sevaks). Normally, there is a single delivery round in the cities that starts from the SPCC early in the morning around 6 am. The idea that drives this section is that in order to maximise D+X delivery (see section 4.4.1 on KPIs) of Speed Post articles, it is useful to have a second intra-day delivery round to take articles from the SPCC to selected post offices. Such an arrangement has to be feasible it terms of availability of MMS trips during day time, distance of post offices from the SPCC etc.

Description

Before proceeding, it is important that all delivery post offices linked to a particular SPCC may not necessarily have the same number of delivery rounds. Bigger/important post offices and post offices closer to the SPCC are expected to have more delivery rounds as compared to others. Secondly, the prescribed number of delivery rounds for a SPCC depends on the type of SPCC.

For this purpose, SPCCs have been classified into two categories here:

■ Urban SPCC: A SPCC that is located in a city/town with a population of more that 5 lakhs is classified as an urban SPCC. It is possible that an urban SPCC also caters to post offices that lie outside the city/town limits, i.e., in non-urban areas.

■ Rural SPCC: Any SPCC that is not an urban SPCC is classified as rural SPCC.

❓ How many delivery rounds should an urban SPCC have?

An urban SPCC should have 2 collection rounds:

■ Start-of-day delivery round to all post offices linked to that SPCC. MMS vehicles in this delivery round should leave the SPCC at 6 am and take all TD (both 'local TD' and 'Inbound TD') articles that have been processed at the SPCC since the previous delivery round.

■ Intra-day delivery round to all post offices that lie within the city/town limits. In case the number of such post offices exceeds 30, then the intra-day delivery round should cater to only the top 30 post offices in terms of delivery volumes. MMS vehicles in this delivery round should reach the post

offices between 12 noon and 1 pm and take all TD (both 'local TD' and 'Inbound TD') articles that have been processed at the SPCC since the previous delivery round. It is important to observe that the selection of post offices and the timings of this delivery round are such that it can be piggy-bagged (combined with) on the intra-day collection round (see section 4.3.1 on Collection rounds). This means that the same trip of MMS can serve two purposes – to drop-off Speed Post articles brought from the SPCC for delivery at the post office, and to pick-up freshly booked Speed Post articles from the post office to be taken to SPCC. This will save additional MMS trips as is the common practice in MMS planning in the Department.

How many delivery rounds should a rural SPCC have?

A rural SPCC should have only 1 delivery round:

- **Start-of-day delivery round** to all post offices linked to that SPCC. MMS vehicles in this delivery round should leave the SPCC at 6 am and take all TD (both 'local TD' and 'Inbound TD') articles that have been processed at the SPCC since the previous delivery round.

In case there are a few high volume post offices close to the SPCC then one MMS can be arranged to drop-off Speed Post articles from the SPCC to these post offices between noon and 1 pm to ensure higher D+X delivery.

Enablers

Following are a set of guidelines that can act as enablers to ensure that complete benefits of the delivery rounds are derived:

- The delivery rounds prescribed above should be dedicated to Speed Post (especially for urban SPCCs) and not mixed with first class mail as far as possible.

- The postmen or GDS official responsible for delivery of mail received in the intra-day delivery round (for urban SPCCs) may, as far as possible, be dedicated to Speed Post as similar delivery round might not exist for other mail categories.

- The number of post offices that a MMS trip covers in a delivery round should be such that the MMS vehicle is able to reach the post offices in time so as to enable the sorting postmen do beat sorting and then enable the postmen to take the articles for delivery. Please note that this has an implication on the number of MMS vehicles that will be required by the SPCC.

Note: It may be noted that each delivery round by the MMS is supported by corresponding delivery rounds by postmen or GDS officials in their respective

beats. Therefore, if a particular post office receives two deliveries from the SPCC, the postmen or GDS officials of the post office would be required to also carry Speed Post articles twice to their beats in the same day. The Circles should make appropriate arrangements for this purpose as considered appropriate.

4.4. Performance Management

A network of the size of India Post can only be successfully managed if, (1) performance of each part in the value chain can be objectively controlled and (2) everyone associated with the processes is aware of what activity gets measured and why.

Therefore, in order to ensure the best possible Speed Post performance management system, it has to be ensured that all people involved (1) fully know how the Speed Post system and its processes work (2) have transparency on how well they are performing vis-à-vis the expectations and (3) are enabled to take corrective action in their area of influence in case performance targets are not met.

This section, therefore, provides an (1) explanation of the Key Performance Indicators (KPIs) which have been developed in order to measure Speed Post performance across the country, and (2) an approach on how to have performance discussions using the KPIs.

4.4.1. Key Performance Indicators (KPIs)

This section of the manual focuses on the description of the KPIs built for the Speed Post performance measurement. These KPIs has been developed based on the SpeedNet Database hosted at PTC Mysore.

Speed Post KPIs have been classified into following broad categories:

- **D + x Reports:** Reports on average transit time in working days based on final delivery time within/across cities.

- **D + x Attempted Reports:** Reports on average transit time in working days same as 'D + x reports' except that these are based on the time of first attempted delivery for those articles which are delivered in multiple attempts.

- **Scan Compliance Reports:** Reports on scan compliance at different points in transit chain.

- **International Reports:** Reports on movement status for International EMS inbound articles.

■ Supporting KPIs: Reports to understand the performance metric and get the supporting information on Absenteeism, Share of Improper Bag labels, Missorted articles, Missing PIN Codes etc.

Please note that all of the above reports are daily reports except international reports, which are, at present, weekly reports (where the week begins on Monday and ends on Sunday).

4.4.1.1 D+x KPI: "Speed"

Explanation

The D+x KPI "Speed" is the most relevant KPI for measuring Speed Post quality.

It will reflect the average time for an article from booking by the customer to delivery to the recipient. It gets calculated separately for articles booked at PO and processed at SPCC and for articles which are booked and processed at MBCs/BNPL centres/OSA facility. For each of these, further break-up is available based on TD (articles with delivery Post Office and Booking Post office being attached to the same SPCC) and NTD (articles with delivery Post Office and Booking Post office not being attached to the same SPCC). For NTD articles, a break-up is available sector-wise, e.g., the D+x time from Mumbai to Delhi or Bangalore to Kolkata can be computed. The D+x KPI "Speed" will reflect the average time for an article from booking by the customer to delivery to the recipient. It gets calculated separately for TD (articles with delivery Post Office and Booking Post office being attached to the same SPCC) and NTD (articles with delivery Post Office and Booking Post office not being attached to the same SPCC) articles. For NTD articles, a break-up is available sector-wise, e.g., the D+x time from Mumbai to Delhi or Bangalore to Kolkata can be computed.

Calculation logic

■ Take into account all articles for a chosen period which have both booking and delivery scan in SpeedNet

■ For each article, take the date of delivery and subtract the date of booking

■ In case there is a Sunday and/or public holiday between date of delivery and date of booking, also subtract this day/these days

■ Treat a "returned to sender" article for Non-TD cases as Non-TD and not as TD

■ Sum up all individual D + x times (multiplied by) per article and divide the result by total number of articles in the selection

■ Result is the D + x value for the selection

Example

■ Take into account 1,000 articles which had been delivered on a Wednesday and find their corresponding booking scan from SpeedNet

■ The analysis shows that 500 articles have been delivered within 1 day, 400 within 2 days and 100 articles within 4 days

■ The 100 articles delivered in 4 days were booked on a Saturday, so there was a Sunday between the date of booking and delivery. For these 100 articles the Sunday gets subtracted, which makes these 100 articles being delivered within 3 working days

■ The average D+x value of these 1,000 articles is calculated as:

$$\frac{(500 \text{ Articles} \times 1 \text{ day}) + (400 \text{ Articles} \times 2 \text{ days}) + (100 \text{ Articles} \times (4-1) \text{ days})}{1,000 \text{ Articles}}$$

■ The average D + x value would be 1.6 days

4.4.1.2   D+x KPI: "Reliability"

Explanation

The D+x KPI "Reliability" is based on the same data as for D+x KPI "Speed", but it does not compute an average but instead breaks that average down into the percentage of articles delivered in one, two, three days etc. This KPI would, therefore, help to focus on how efficient and stable Speed Post processes are. The more stable it is, the less variation should be seen for comparable articles.

Calculation logic

■ Take into account all articles for a chosen period which have both booking and delivery scan in SpeedNet

■ For each article, take the date of delivery and subtract the date of booking

■ In case there is a Sunday and/or public holiday between date of delivery and date of booking, also subtract this day/these days

■ Sum up all individual D+x times (multiplied by) per article and group them together based on time taken between booking and delivery

■ Divide the number of articles in each group by total number of articles in your selection

■ The result will be the share of articles delivered in D+1, D+2, D+3, D+4, D+5 and >D+5.

Example

- Take into account 1,000 articles which had been delivered on a Wednesday and find their corresponding booking scan from SpeedNet.

- The analysis shows that 500 articles have been delivered within 1 day, 400 within 2 days and 100 articles within 4 days.

- The 100 articles delivered in 4 days were booked on a Saturday, so there was a Sunday between the date of booking and delivery. For these 100 articles the Sunday gets subtracted, which makes these 100 articles being delivered within 3 working days.

- The split into D+1, D+2, D+3 etc. for these 1,000 articles is calculated as:

    D+1 Share = 400 articles with delivery in 1 day/1,000 articles

    D+2 Share = 200 articles with delivery in 2 days/1,000 articles

    D+3 Share = 100 articles with delivery in 3 days/1,000 articles

- The results, would, therefore show up as D+1 = 50%, D+2 = 40% & D+3 = 10%.

4.4.1.3 D+x KPI: "Delivered vs. attempted delivery"

Explanation

This KPI is developed to enable the circles identify cases where an article was not successfully delivered owing to factors such as "door locked", "address not found" etc. In this KPI, the difference between date of first attempt for delivery and date of booking is taken as the transit time. This report splits the D+x KPI report further into two components, and calculates the average transit time of articles based on number of attempts of delivery. In case of articles delivered in first attempt, the average transit time is reported under First Attempt Delivery while in case of articles being delivered in multiple attempts, the average transit time is reported under Multiple Attempt Delivery.

Calculation logic

- Take into account all articles for a chosen period which have both booking and delivery scan in SpeedNet

- For each article delivered in first attempt, take the date of delivery and subtract the date of booking

- For each article delivered in multiple attempts, take the first date of reported undelivered and subtract the date of booking

- In case there is a Sunday and/or public holiday between date of delivery and date of booking, also subtract this day/these days

- Treat an returned article for Non-TD cases as Non-TD and not as TD

- Sum up all individual D + x times (multiplied by) per article and divide the result by total number of articles in the selection respectively for articles delivered in first attempt and articles delivered in multiple attempts

- The result is the D + x value for the selection

Example

- Take into account 1,000 articles which had been delivered on a Wednesday and find their corresponding booking scan from SpeedNet

- Out of these 1,000 articles, 800 were delivered in First Attempt and the rest 200 got delivered in multiple attempts

- The analysis for articles delivered in First attempts shows that 400 articles have been delivered within 1 day, 200 within 2 days and 200 articles within 4 days

- The 200 articles delivered in 4 days were booked on a Saturday, so there was a Sunday between date of booking and delivery. For these 100 articles the Sunday gets subtracted, which means that these 200 articles were delivered within 3 working days

- The average D+x value of these 800 articles is calculated as

$$\frac{(400 \text{ Articles} \times 1 \text{ day}) + (200 \text{ Articles} \times 2 \text{ days}) + (200 \text{ Articles} \times (4-1) \text{ days})}{800 \text{ Articles}}$$

- The average D + x value for articles delivered in first attempt would then be 1.75 days

- For the rest of 200 articles delivered in Multiple Attempts, say, 150 were reported undelivered for the first time in 1 day while got delivered in 3 days, 30 were reported undelivered for the first time within 2 days while actually got delivered in 4 days, 20 were reported undelivered for the first time after 3 days and returned and got delivered in 7 days

- The average D+x values of these 800 articles is calculated as

$$\frac{(150 \text{ Articles} \times 1 \text{ day}) + (30 \text{ Articles} \times 2 \text{ days}) + (20 \text{ Articles} \times 3 \text{ days})}{200 \text{ Articles}}$$

- The average D + x values of these 200 articles delivered in multiple attempts would then be 1.35 instead of a very high number due to actual days of delivery: of 3.3 days:

$$\frac{(150 \text{ Articles} \times 3 \text{ day}) + (30 \text{ Articles} \times (4-1) \text{ days}) + (20 \text{ Articles} \times (7-1) \text{ days})}{200 \text{ Articles}}$$

4.4.1.4 Scan compliance: "Articles with full scan history"

Explanation

Scan compliance reports for articles with full scan history considers only those articles which has all scans defined for them. At every point of consideration during the journey of an article from the sender to the recipient, the article is scanned and the report calculates the share of articles scanned against total articles passing through the value chain. Articles booked at PO/SPCC and BNPL centre/MBC/OSA facility/BPC comes will have different sets of required scans.

Scans for Articles Booked at PO/ SPCC

TD Articles

1. PO/SPCC Booking Scan
2. PO/SPCC Dispatch Scan
3. SPCC MA/TMO Receipt Scan
4. SPCC Bag Opening Scan
5. SPCC Bag Closing Scan
6. SPCC MA/TMO Dispatch Scan
7. Delivery PO Receipt Scan
8. Delivery PO Final Delivery Scan

NTD Articles

1. PO/ SPCC Booking Scan
2. PO/ SPCC Dispatch Scan
3. Origin SPCC MA/TMO Receipt Scan
4. Origin SPCC Bag Opening Scan
5. Origin SPCC Bag Closing Scan
6. Origin SPCC MA/TMO Dispatch Scan
7. Destination SPCC MA/TMO Receipt Scan
8. Destination SPCC Bag Opening Scan
9. Destination SPCC Bag Closing Scan
10. Destination SPCC MA/TMO Dispatch Scan
11. Destination PO Receipt Scan
12. Destination PO Final Delivery Scan

Scan of articles booked at BNPL centre/ MBC/ OSA facility/ BPC

TD Articles

1. Booking Scan at Booking Office

2. Booking Office Dispatch Scan

3. Mail Agency Dispatch Scan

4. Delivery PO Receipt Scan

5. Delivery PO Final Delivery Scan

NTD Articles

1. Booking Scan at Booking Office

2. Booking Office Dispatch Scan

3. Mail Agency Dispatch Scan

4. Destination SPCC MA/TMO Receipt Scan

5. Destination SPCC Bag opening Scan

6. Destination SPCC Bag Closing Scan

7. Destination SPCC MA/TMO dispatch scan

8. Destination PO Receipt Scan

9. Destination PO Final Delivery Scan

Calculation logic

■ Take into account all articles for a chosen period having all scans in their journey from booking till final delivery

■ Take count of all the articles delivered in the selected duration (at least one scan being delivery scan)

■ Divide the count of articles with all possible scans by total count of the articles delivered

Example

■ Take into account 1,000 articles delivered on a particular day

■ Out of these 1,000 articles, only 800 articles has all scans as defined above

■ The share of full scans is calculated as:

   Share of Full Scans = 800/1,000

■ The result comes out to be 80%

4.4.1.5 Scan compliance: "Share of scans against total expected scans"

Explanation

Scan compliance reports for articles with share of scans against total expected considers all such articles which have both Booking and Delivery Scans in the SpeedNet. At every point of consideration during the journey of an article from the sender to the recipient, the article is scanned and the report calculates the share of total number of scans available for the articles against total number of expected scans for articles delivered. Articles booked at PO/ SPCC and BNPL centre/MBC/OSA facility/BPC will have different sets of required scans. The expected count of scans is as follows:

- Articles Booked at PO/SPCC
  - TD Articles: 8
  - NTD Articles: 12
- Articles Booked at BNPL centre/ MBC/ OSA facility/ BPC
  - TD Articles: 5
  - NTD Articles: 9

Note: The above section (Scan Compliance Articles with full scan history) explains all scans which are considered for KPI Calculations.

Calculation logic

- Take into account all articles for a chosen period which have both booking and delivery scan in SpeedNet
- Count all available scans at relevant points for these articles in their journey from Booking till Final Delivery
- Divide the total count by the expected number of scans required

Example

- Take into account 1,000 articles delivered on a particular day which were all booked by either in a PO or in a SPCC
- Let us also assume that all of these 1,000 articles are NTD articles, and hence the expected number of scans for each article is 12
- Count all the available scans in the SpeedNet for these 1,000 Articles, which, for example, comes out to be 9,000
- Share of total scans against total expected is calculated as:

   Share of Actual Scans against Total Expected = 9,000/1,000 Articles × 12
- Value of the KPI comes out to be: 75%

This KPI also gives share of scans against expected scan at each scan event, e.g., for 1,000 NTD articles delivered, 1,000 receipts scans are needed at destination SPCC. However, in the system, there are only 500 scans. Thus, the scan compliance at the Destination SPCC receipt event is 500/1,000 = 50%. Scan compliance is seen at each event in the transit chain in a similar manner.

4.4.1.6 International KPI: "Share F – Scan in IPS vs. F – Scan (receipt) in SpeedNet"

This KPI gives an overview of numbers of articles received in SpeedNet (F – Scan in SpeedNet) in next 1 day from the date an International Article was processed in IPS for F – scan.

Calculation Logic

■ KPI is calculated on a weekly cycle of Monday to Sunday

■ Consider all the articles received (having their F – Scan in IPS) in a particular week

■ For articles received on each day in the week, look into current and the next 1 day of data for F scan and count the number of articles found there

■ Similar exercise to be done for rest of the six days and aggregate for the week

■ To calculate the KPI, divide the total number of articles having the F (receipt) scan in the week in SpeedNet by total number of articles having the F – scan in IPS

■ Days to be looked for F – scan (receipt scan) data (SpeedNet) for one week of F – Scan Data (IPS)

   – Monday: Monday, Tuesday

   – Tuesday: Tuesday, Wednesday

   – Wednesday: Wednesday, Thursday

   – Thursday: Thursday, Friday

   – Friday: Friday, Saturday

   – Saturday: Saturday, Sunday

   – Sunday: Sunday, Monday

Example

■ Consider a week of 19th to 25th August (starting Monday) which has 1,000 Articles in all having F – Scan at IPS

- Now there were 150 Articles on each day excluding Sunday where we have only 100 articles

- Now for 150 articles received on Monday, we only have 120 articles in F (receipt) scan in SpeedNet till Tuesday. Similarly, for 150 Articles on Tuesday, we only have F – Scan (receipt) in SpeedNet till Wednesday for 135 articles and so on

- Finally, say, we get total of 890 articles in F – scan (receipt) in SpeedNet for those 1,000 articles considered from F – Scan in IPS

- The KPI is calculated is:

  Share of F – Scan (receipt) in SpeedNet vs. F – Scan in IPS = 890 Articles/1,000 Articles

- KPI comes out to be 89%

4.4.1.7 International KPI: "Share F – Scan in IPS vs. D – Scan in IPS"

This KPI gives an overview of numbers of articles received in the IPS (F – Scan in IPS) in the next 5 days from the day an International article was received in the OOE (D – scan in IPS). This can be used further in calculating the delay of articles at customs, if any.

Calculation Logic

- KPI is calculated on a weekly cycle of Monday to Sunday

- Consider all the articles received (having their D – Scan in IPS) in a particular week

- For articles received on each day in the week, look into the next 5 days of data for F scan in IPS and count the number of articles found there

- Similarly, do this exercise for rest of the six days and aggregate for the week

- To calculate the KPI, divide the total number of articles having F - scan in IPS in the week by total number of articles having the D – scan

- Days to be looked for F – scan Data for one week of D – Scan Data

  – Monday: Tuesday, Wednesday, Thursday, Friday, Saturday

  – Tuesday: Wednesday, Thursday, Friday, Saturday, Sunday

  – Wednesday: Thursday, Friday, Saturday, Sunday, Monday

  – Thursday: Friday, Saturday, Sunday, Monday, Tuesday

  – Friday: Saturday, Sunday, Monday, Tuesday, Wednesday

  – Saturday: Sunday, Monday, Tuesday, Wednesday, Thursday

– Sunday: Monday, Tuesday, Wednesday, Thursday, Friday

Example

■ Consider a week of 19th to 25th August (starting Monday) which has 1,000 articles in all having D – Scan at IPS

■ Now there were 150 Articles on each day excluding Sunday where we have only 100 articles

■ Now for 150 articles received on Monday, we only have 120 articles in F – Scan till Saturday. Similarly, for 150 Articles on Tuesday, we only have F – Scan till Sunday for 135 articles and so on

■ Finally, say, we get a total of 890 F – scan articles in IPS for those 1,000 articles considered from D – Scan

■ The KPI is calculated is:

Share of F – Scan in IPS vs D – Scan in IPS = 890 Articles/1,000 Articles

■ KPI comes out to be 89%

4.4.1.8   International KPI: "Share I – Scan in IPS vs. F – Scan in IPS"

This KPI gives an overview of numbers of articles delivered (I – Scan in IPS) in the next 5 days from the day an International article was received (F – scan in IPS). This can be used further in calculating the penalty to be paid off for undelivered articles.

Calculation Logic

■ KPI is calculated on a weekly cycle of Monday to Sunday

■ Consider all the articles received (having their F – Scan in IPS) in a particular week

■ For articles received on each day in the week, look into the next 5 days of data for I scan and count the number of articles found there in the list of F – Scan articles

■ Similarly, do this exercise for rest of the six days and aggregate for the week

■ To calculate the KPI, divide the total number of Articles having the I scan in the week by total number of articles having the F – scan

■ Days to be looked for I – scan Data (delivery) for one week of F – Scan Data

– Monday: Tuesday, Wednesday, Thursday, Friday, Saturday

– Tuesday: Wednesday, Thursday, Friday, Saturday, Sunday

– Wednesday: Thursday, Friday, Saturday, Sunday, Monday

- – Thursday: Friday, Saturday, Sunday, Monday, Tuesday

- – Friday: Saturday, Sunday, Monday, Tuesday, Wednesday

- – Saturday: Sunday, Monday, Tuesday, Wednesday, Thursday

- – Sunday: Monday, Tuesday, Wednesday, Thursday, Friday

Example

- Consider a week of 19ᵗʰ to 25ᵗʰ August (starting Monday) which has 1,000 articles in all having F – Scan at IPS

- Now there were 150 articles on each day excluding Sunday where we have only 100 articles

- Now for 150 articles received on Monday, we only have 120 articles in I – Scan till Saturday. Similarly for 150 Articles on Tuesday, we only have I – Scan till Sunday for 135 articles and so on

- Finally, say, we get a total of 890 I – scan articles in the IPS for those 1,000 articles considered from F – Scan

- The KPI is calculated is:

    Share of I – Scan vs F – Scan in IPS = 890 Articles/1,000 Articles

- KPI comes out to be 89%

4.4.1.9   Supporting KPI: "Share of articles without proper bag labels"

Explanation

This KPI helps in monitoring the norm for using the prescribed bag labels while closing a bag at the SPCC. The event considered for calculation of this KPI is the Bag Closing Event at SPCC. All the bags closed at the SPCC having their bag closing scan in the SpeedNet are considered and checked for their Bag Number.

Calculation Logic

- Take into account all the bags closed at an SPCC on a particular day starting from the beginning of the first set/shift till starting of the first set/shift time the next day

- Check the Bag number available in the SpeedNet after the Bag Closing Scan

- If the first two characters of Bag Number are not "EB" followed by six digits and the total number of characters in the Bag number is not 8, or if the first three characters of Bag Number are not "EBX" (based on series allocated to

each Circle) followed by ten digits and the total number of characters is not 13, then the bag label is considered an improper bag label

■ Count all the improper bag labels and divide the same by total numbers of the bag closed during the day

Example

■ Assume that there were 500 bags which were closed at SPCC during a particular day

■ There were 50 bags which had bag labels of 8 or 13 characters, 100 bag labels had EB as the first two characters but only 5 digits

■ It amounts to 150 improper bag labels out of the total of 500 closed in a day

■ The KPI is Calculated as:

Share of bags with improper bag labels = 150/500

■ KPI comes out to be 30%

Samples of bag labels and corresponding corrections (if any)

■ EK123456: First two characters should be EB

■ EB12345: The total number of characters in the bag label should either be 8 or 13 characters

■ EBT123456789: Length of bag label should be either 8 or 13 characters

■ EB123456: Correct bag label

■ EBT0123456789: Correct bag label

4.4.1.10 Supporting KPI: "Articles processed per manhour"

Explanation

This KPI helps in monitoring the efficiency of the staff in handling average volume of articles on an hourly basis. The inputs to calculate this KPI are provided by the SPCC itself. The Inputs used are:

■ Set/shift wise Working Hours – Filled though the Master data

■ Set/shift wise Time for Lunch Break – Filled through Transactional Data

■ Set/shift wise number of staff present in each Group – C/ D/ Outsourced

■ Set/shift wise total number of overtime hours worked

■ Set/shift wise total number of under hours (non- working hours)

■ Total Articles processed by the set/shift

To calculate the KPI, we aggregate the total number of articles processed during the day across all the two/three sets/shifts defined through the master data and divide the same by the total man hours calculated.

Calculation Logic

■ Consider a particular set/shift

■ Pick up the values entered for the set/shift through transactional data

■ Calculate total man hours for the set/shift =

(Total Number of staff in group C + group D + Outsourced) × (Duration for the set/shift – Lunch Break Duration) + Extra Hours worked – Under Hours Worked

■ Calculate articles processed per man hour =

Total number of articles processed / Total man hours in the set/shift

Example

■ Calculation of Total Man Hour for a Set/shift

■ Let us assume that the data entered through the Transactional Data Entry Form is as following:

– Set/shift Number: 1 (Duration of this set/shift is 8 hours)

– Report Date: 28/07/2010

– Group C Staff Present: 5

– Group D Staff Present: 10

– Outsourced Staff Used: 5

– Extra Hours Worked: 9 (4 group D staff has to work for 2 more hours each and one group C staff has to work for 1 more hour)

– Under Hour Worked: 3 (3 outsourced staff only worked for 7 hours)

– Lunch Break Duration: 0.5 Hours (Total of 30 Minutes of lunch break in the set)

– Total articles Processed: 31,370

■ Hence, the total man hours is calculated as:

Total Number of staff × (Duration for the set/shift – Lunch Break Duration) + Extra Hours worked – Under Hours Worked

$= (5 + 10 + 5) \times (8 - 0.5) + 9 - 3$

$= 20 \times 7.5 + 6$

$= 156$ Man Hours

- Calculation of Articles processed per man hour is calculated as:

  Total Number of articles processed in the Set(shift) / Total man hour(s) in the Set(shift)

  = 31,370 articles / 156 man hour = 201.09 articles per man hour for the Set/shift 1

4.4.1.11 Supporting KPI: "Staff absenteeism"

Explanation

This KPI helps understand the staff strength available to work on a particular day in a particular set. It is calculated based on the information provided by the SPCC in Transactional Data on daily planned staff strength and actual staff present.

Calculation Logic

- Consider any set/shift for a SPCC for which the number of Planned Staff is 10 for a particular group of staff – as reported through transaction data

- Consider any particular day where transactional data says that only 9 staff were present in the set/shift of the group

- Hence, total staff absent is calculated as (10 – 9) = 1

- KPI value would then be:

    Number of absent staff / Total number of planned staff

- Value of KPI would be 10%

4.4.1.12 Supporting KPI: "Share of articles with missing pin code"

Explanation

This KPI assesses how many articles were booked in the city with 6 digit PIN code.

Calculation Logic

For all the articles booked in the city (irrespective of place of booking and processing- SPCC, BNPL centre, BPC, MBC, OSA facility), a check is run to ensure whether they have a 6 digit numeric Pin code or not. Correctness of the Pin code is not checked here.

Example

1,000 articles were booked in the city (i.e. and have booking scan). Out of these, only 200 had complete 6 digit Pin codes. Hence, the value of the KPI is 20%.

4.4.1.13 Supporting KPI: "Share of mis-sorted articles"

Explanation

This KPI assesses the mis-sorting of Speed Post articles done at the source as well as the destination SPCC.

■ The KPI tests sorting effectiveness for the following articles:

  – Only for articles which have both booking and delivery scan in SpeedNet

  – Only articles with a 6 digit pin code

  – Articles processed at SPCC (articles booked and processed at a BNPL centre and directly bagged for destinations are not included. Similarly, articles contained in direct bags closed by post offices for destination post office/SPCC are also excluded)

■ The KPI is computed based on

  – Article number

  – Bag number

  – Pin code information as entered at time of booking

  – Existing Databases-

  – Office master table of SpeedNet database which shows linkage between a 3 digit PIN code and the pertaining NSPC (for NTD)

  – Office master table of SpeedNet database that shows linkage between a 6 digit PIN code and the pertaining destination P.O. (for TD)

  – Routing tables that shows linkage between the nodal delivery office and the linked offices

Calculation Logic

For TD articles

■ For all the bags closed at a SPCC, bag labels hold information for destination

■ Consider all the articles into it and get their 6 digit PIN codes (Articles with no 6 digit PIN codes are not taken into account)

■ From PIN code, find the destination Office using the office master table (Invalid PIN code articles are avoided here for mis-sort calculation)

■ From Destination Office, look up the nodal and destination office from the routing table. If the bag has been sent to the Nodal or the main PO, then it does

not count as a mis-sort, or else it is considered a mis-sort. (The closing scan of the bag at SPCC holds information as to which office the bag has been sent).

For NTD articles

■ For all the bags closed at a SPCC bag labels hold information for delivery SPCC

■ Consider all the Articles into it and get their 3 digit PIN codes (Articles with no 3 digit PIN codes are not taken into account)

■ Find the destination SPCC from these 3 digit PIN Code using office master database

■ Check the 'To Office' and find the SPCC of this 'To Office' from the bag closing information

■ If SPCC of the 'To Office' is same as the destination SPCC of the articles based on the bag label, then the article is considered being sorted correctly. Otherwise, it is considered as a mis-sort.

Caveats

■ In case the article is booked for a spoke SPCC and is routed via a hub SPCC owing to connectivity issues, it will come as a mis-sort, if no separate bag is closed for it.

■ In case wrong Pin is entered at the time booking, then it will be shown as mis-sort because destination based on the PIN code of the article (which is incorrect) will not match with the bag label it is included in.

■ Bags closed by Booking offices closing direct bags for delivery offices (P.O. to P.O. TD) are excluded from the computation.

■ In case direct bags are closed by MBCs, then mis-sorting check won't be feasible at the source SPCC but will be done only at the destination SPC.

■ In case TMOs are not configured as separate entity then they will also be used for computation of the KPI. However, under the new TMO module developed by PTC Mysore, the TMOs/Mail Agencies are shown as distinct entities and hence, this duplicacy will be resolved.

Example

■ Let us assume that an article EM129571925 IN with addressee pin 400066 is booked in Mumbai for delivery in Mumbai Borivilli East

■ A check is done based on the addressee PIN as to which NSPC it should go to (based on the delivery PO identified via the PIN). Being a TD article, it

should be bagged for the PO. However, when we check in the system, it was sent in a bag for Pune NSPC, 411001. This will be counted as a missort.

- For 1000 articles processed in the SPCC for TD, if 300 are routed not to the mapped delivery PO or nodal delivery office as stated in the routing tables, it will be counted as mis-sort to the extent of 30%.

4.4.2. Performance dialogues

❓ What are performance dialogues?

Performance dialogue is a method for review of certain performance indicators by a reviewer at a given frequency to monitor and control performance, which is measured through some identified indicators.

❓ What is the need of performance dialogue?

Performance dialogues meet the following objectives:

- Enable management to review the current performance versus the targets
- Enable management to compare current performance versus last performance
- Enable identification of problem/area of concern
- Ensure discussion for resolution of the problem
- Ensure 'reward and penalty' for the team based on the performance

❓ At what all levels will the performance dialogue happen?

Performance dialogue shall happen at 4 levels in the organisation (see illustration below) at regular frequency.
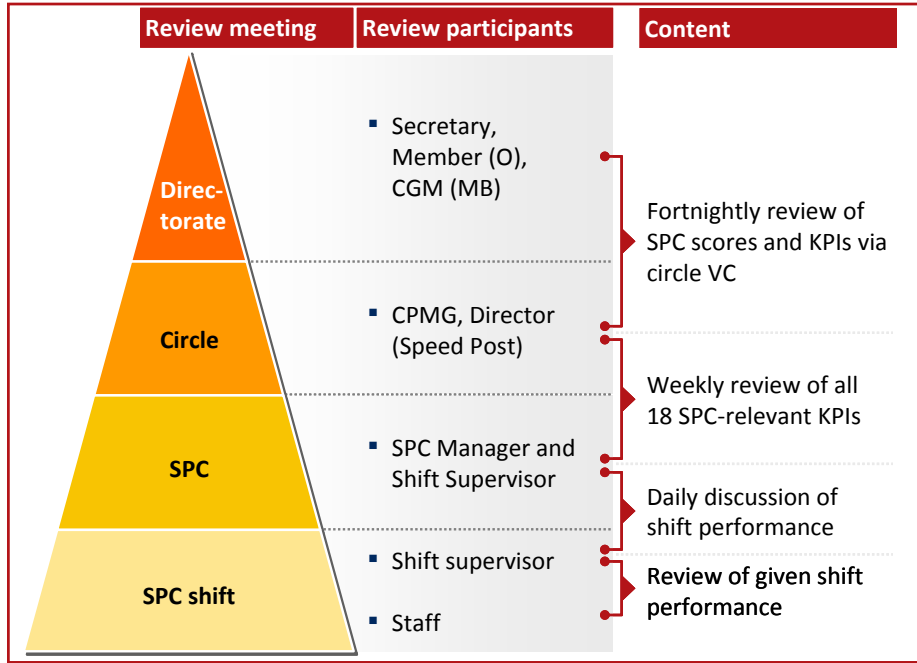
FIGURE 4.45: 4 levels of performance dialogues

4.4.2.1   Level 1 – SPCC shift/set

② Who shall be the reviewer and who shall be reviewed?

The review will happen between the Shift/set H.S.A./supervisor(reviewer) and the Staff- Group C and D and Outsourced (reviewed)

② At what frequency shall this dialogue happen?

This dialogue shall happen daily at the beginning and the end of the given set/shift

② What shall be the duration of the dialogues?

- Beginning of the set – 10-20 minutes

- End of the set – 15 minutes

② What shall be the mode of dialogues?

In person conversations

② What are the tools available for the review?

- A daily shift/set report (see appendix – section 5.4) is available which needs to be filled in at the end of the shift/set by the HSA/supervisor and shared with the team during the performance dialogue.

- Error report template to report errors

Who prepares content for the review?

Shift/set H.S.A/ supervisor prepares the set/shift report and the error report

What shall be the content of this review?

Beginning of the set

The shift/set supervisor shall, at the start of the set/shift, do the following:

- Share the performance of the previous set/shift with the team
- Communicate the targets for the current set/shift to all
  - Productivity targets to ensure 'Zero transfer to the next set/shift' based on
    - Manpower available in the set/shift
    - Volume flow expected for the set/shift (any bag transfer from the previous set and also the fresh receipt)
  - Other qualitative targets like
    - Zero mis-sorts
    - 100% scan compliance

End of the set/shift

The HSA/supervisor shall discuss the current set/shift performance with the team

- The number of articles handled in the set/shift
- The number of bags opened in the set/shift
- The number of bags closed in the set/shift
- The number of bags transferred from the current set/shift to next set/shift
- Absenteeism (Planned- actual staff) in the set/shift
- Scan compliance- based on % of articles handled in SpeedNet vs. total number of articles handled in the set
- Mis-sort-based on random checks done by him/her and the IPO/ASP/ASRM
- Recognise the best sorter and scanning official for the set/shift (best scanning official based on articles scanned by him/her in the set/shift and best sorter based on random check of quality and speed of sorting)

In addition to the above, the HSA/supervisor should also hear from the team any specific issue and concern faced by them during processing.

- Non compliance from other offices and POs

– Mis-sorts coming from a given office

– Bags with incorrect bag labels from a given office

– TD and NTD articles not coming separately from a given PO

– Delay in arrival and connection of flights, MMS vehicle

■ Hardware/software and stock issues:

– Systemic issues faced with SpeedNet

– Inadequate stock of bags, bag labels, article labels etc.

What shall be the end products from the dialogue?

The dialogue at the end of the set should yield the following:

■ Error report based on the multiple non-compliances by other offices that needs to be discussed with the SSRM, SPCC manager

4.4.2.2 Level 2 – SPC

Who shall be the reviewer and who shall be reviewed?

The review will happen between the SPCC manager (reviewer) and the shift/set H.S.A./supervisor (reviewed)

At what frequency shall this dialogue happen?

This dialogue shall happen daily at the end of the given set/shift

What shall be the content of this review?

End of the set/shift

The SPCC manager shall review the performance of HSA/supervisor on the current set/shift performance as under:

■ The number of articles handled in the set/shift

■ The number of bags opened in the set/shift

■ The number of bags closed in the set/shift

■ The number of bags transferred from the current set/shift to next set/shift

■ Absenteeism (Planned- actual staff) in the set/shift

■ Scan compliance – based on % of articles handled in SpeedNet vs total number of articles handled in the set/shift

- Mis-sort-based on random checks done by HSA/supervisor and the IPO/ASP/ASRM

In addition to the above, the HSA/supervisor should also discuss with SPCC manager any specific issue and concern faced by his/her team during processing as detailed in the error report.

- Non compliance from other offices and POs
  - Mis-sorts coming from a given office
  - Bags with incorrect bag labels from a given office
  - TD and NTD articles not coming separately from a given PO
  - Delay in arrival and connection of flights, MMS vehicle
- Hardware/software and stock issues:
  - Systemic issues faced with SpeedNet
  - Inadequate stock of bags, bag labels, article labels etc.

What are the tools available for the review?

- The daily shift/set reports (see appendix – section 5.4)
- The daily error reports

What shall be the duration of the dialogues?

End of the set- 15 minutes

What shall be the end products from the dialogue?

The dialogue at the end of the set/shift should yield the following:

- Once dialogues have happened with all the set/shift supervisors for the given day, the SPCC manager needs to prepare the SPCC dashboard (the tool for which needs to be procured from the directorate), which is then displayed at the SPCC on the subsequent day (see illustration below).
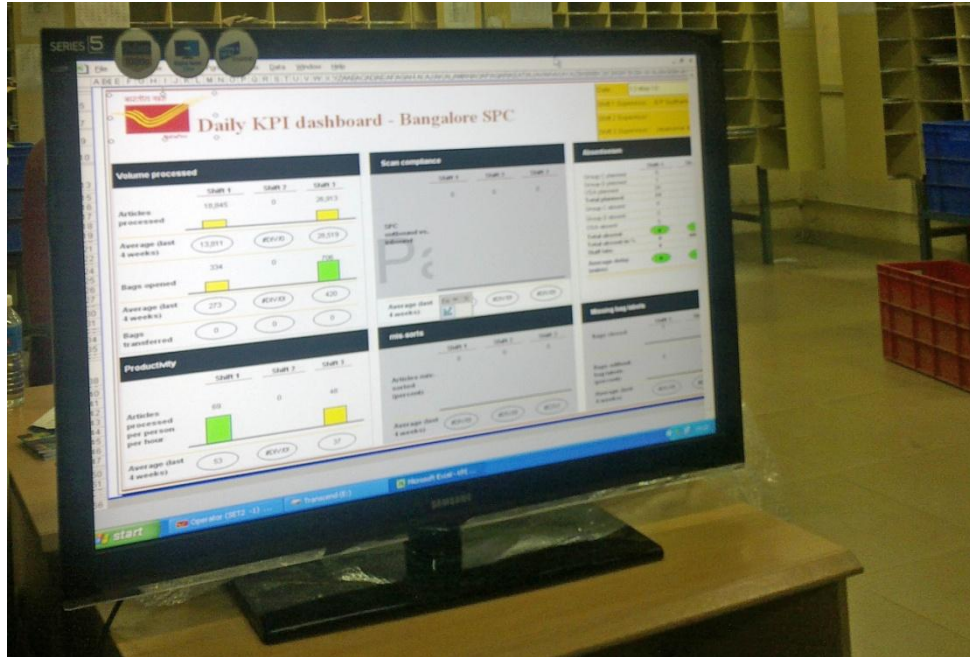
FIGURE 4.46: Daily SPCC dashboard displayed on a LCD screen

- The system administrator needs to update the KPI web page transactional data with the SPCC dashboard information (detailed instructions to update the webpage are provided in appendix – section 5.4)

- Error report that needs to be discussed with the Director

- Update of the same to be given to the Director by the SPCC Manager on a daily basis at 10:00 hours along with the SPCC Dashboard and the error report

❓ What shall be the mode of dialogues?

- In person conversation with the day set HSA/supervisor when the SPCC manager is on day visit, and with Night set HSA/supervisor when SPCC manager is on the night visit

- Telephonic conversation with the HSA/supervisor when the shift/set ends before the arrival of SPCC manager

- Daily call with the Director on the status/performance of the last day

❓ Who prepares content for the review?

Shift/set H.S.A./supervisor prepares the set/shift report and the error report

4.4.2.3. Level 3 – Circle

❓ **Who shall be the reviewer and who shall be reviewed?**

The review will happen between the CPMG (reviewer) and the Director along with his quality managers (reviewed).

❓ **At what frequency shall this dialogue happen?**

This dialogue shall happen twice a week (Monday and Thursday)

❓ **What shall be the content of this review?**

Monday meeting to focus on:

■ The circle score card (to be provided by the Directorate)
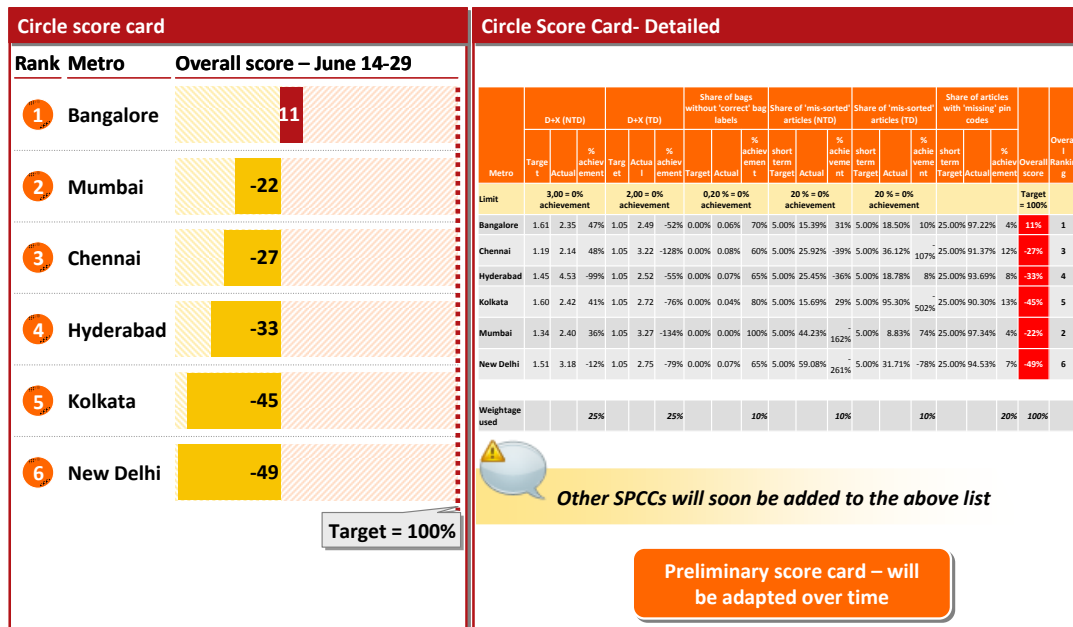
FIGURE 4.47: Sample circle score card

■ The Root cause analysis carried for the last week (data provided to the circle from Directorate)

■ The action plan developed and the status on the last action plan

Thursday meetings to focus on:

■ The KPIs

■ The action plan developed and the status on the last action plan

In addition to the above, the Director should also discuss:

■   Any specific issue and concern faced by his/her team with other circles or Directorate

■   Any approvals sought under the project

❷ What are the tools available for the review?

■   The circle score card

■   The root cause analysis template (see illustrations below)

TD			No. of articles analyzed	Share of articles %
D+1	▪ Article delivered on time	✓	X,XXX	X
Attempted delivery	▪ Article not delivered in first attempt		X,XXX	X
Intercity transit time	▪ Time after bagging at origin SPC and before receipt at destination SPC> 12 hrs		X,XXX	X
Insufficient scan	▪ Owing to insufficient scan unable to identify reason		X,XXX	X
Missent	▪ Misrouting of the articles to wrong destination		X,XXX	X
Delay at delivery PO	▪ Article waited at delivery PO with no attempt to delivery		X,XXX	X
Returned articles - BPC	▪ Owing to incorrect address article returned		X,XXX	X
Delay at origin SPC	▪ Article was bagged after a delay of 24 hours at the SPC		X,XXX	X
Others	▪ E.g., clubbing of mail at two points before coming to SPC		X,XXX	X
Total			**X,XXX**	**100**

FIGURE 4.48: Root cause analysis template – TD

NTD			No. of articles analyzed	Share of articles %
D+1	▪ Article delivered on time	✓	X,XXX	X
Attempted delivery	▪ Article not delivered in first attempt		X,XXX	X
Intercity transit time	▪ Time after bagging at origin SPC and before receipt at destination SPC> 12 hrs		X,XXX	X
Insufficient scan	▪ Owing to insufficient scan unable to identify reason		X,XXX	X
Missent	▪ Misrouting of the articles to wrong destination		X,XXX	X
Delay at delivery PO	▪ Article waited at delivery PO with no attempt to delivery		X,XXX	X
Returned articles - BPC	▪ Owing to incorrect address article returned		X,XXX	X
Delay at origin SPC	▪ Article was bagged after a delay of 24 hours at the SPC		X,XXX	X
Others	▪ E.g., clubbing of mail at two points before coming to SPC		X,XXX	X
Total			**X,XXX**	**100**

FIGURE 4.49: Root cause analysis template – NTD

■ The action plan template (see illustration below)

	Actions	Expected improvement until next VC
D+1	▪ …	▪ …
Attempted delivery	▪ …	▪ …
Intercity transit time	▪ …	▪ …
Insufficient scan	▪ …	▪ …
Missent	▪ …	▪ …
Delay at delivery PO	▪ …	▪ …
Returned articles - BPC	▪ …	▪ …
Delay at origin SPC	▪ …	▪ …
Others	▪ …	▪ …
Total	▪ **…**	▪ **…**

FIGURE 4.50: Action plan template

■ The KPI web page (see illustration below)
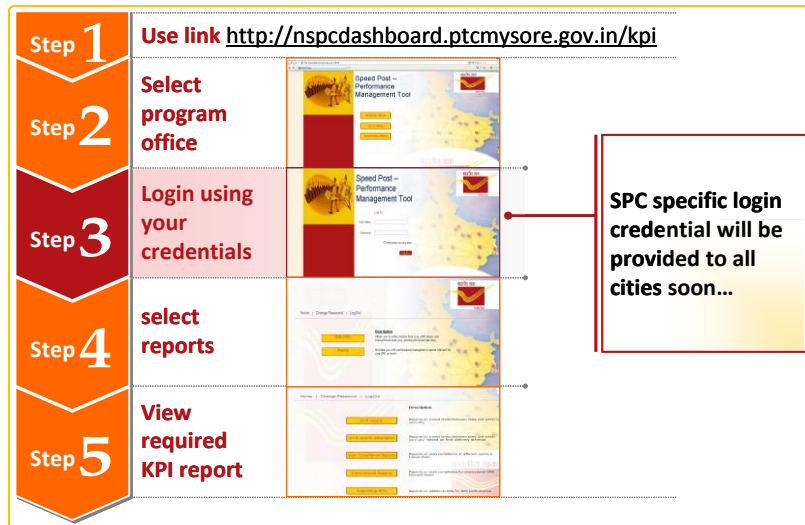
FIGURE 4.51: Steps for using KPI we-page

❓ **What shall be the duration of the dialogues?**

Approximately 60 to 90 minutes

❓ **What shall be the end products from the dialogue?**

The dialogue would yield the following:

■ Detailed remedial action plan

❓ **What shall be the mode of dialogues?**

In person conversation at the Circle office

❓ **Who prepares content for the review?**

Quality manager shall support the Director in preparing the content for review primarily involving extracting data from the web page

4.4.2.4   Level 4 – Directorate

❓ **Who shall be the reviewer and who shall be reviewed?**

The review will happen between the Secretary, Member–Operations (reviewer) and the Directorate team and the CPMGs along with his/her Directors and quality managers (reviewed)

At what frequency shall this dialogue happen?

This dialogue shall happen every fortnight (on Wednesdays)

What shall be the content of this review?

- The circle score card

- The performance on the KPIs

- The root cause analysis carried for the fortnight

- The action plan developed and the status on the last action plan

In addition to the above this shall be the platform to discuss any specific issue and concern faced by the circle

What are the tools available for the review?

- The circle score card

- The KPI web page

What shall be the duration of the dialogues?

120 minutes

What shall be the end products from the dialogue?

The dialogue would yield the following:

- Action points for the Circles, PTC Mysore and Directorate

- KPIs for focus for the next VC

What shall be the mode of dialogues?

Video Conference

Who prepares content for the review?

- Project team to prepare the content on the KPIs and send it to the Circles by Monday 18:00 hours

- Circles to present their findings and action plans in the VC (the filled in templates to be sent to the Directorate (Director Mail Management) by 16:00 hours on Tuesday).

5. Appendices

5.1. Tools and equipments

Bag Cutter	
■ Parrot beak scissors	

Elephant Stool	
■ A metallic stool (galvanised iron) with 4 legs	

Bag Weighing Scale	
■ Digital electronic weighing scale ■ Weighing capacity of 100 kgs	

Scanning Area Tray	
■ Dimensions: 590 × 390 × 110 mm ■ Colour: Blue	

Sorting Area Tray	
■ Dimensions: 590 × 390 × 210 mm ■ Colour: India Post Red	

Sorting Chair	
■ Mesh Seat and back ■ Breathable Air Grid Back and Seat with Built-in Lumbar Support ■ One Touch Pneumatic Seat Height Adjustment ■ Adjustable Chrome Finish Foot ring ■ Nylon Base with Dual Wheel Carpet Casters	

Sorting Case

U shaped case (2 cases with 15 pigeon holes each – 3 column × 5 rows and centre case with 20 pigeon hole 4 column × 5 rows)

Specifications:

- 20 pigeon hole – 180 cm high × 111 cm × 37 cm with one pigeon hole 26 cm broad × 24 cm high. Space at the bottom for keeping sorting trays (platform 9 cm from base, last sorting hole base to begin 45 cm from base)

- 15 pigeon hole – 180 cm × 84 cm × 37 cm. And pigeon hole as per above. Pigeon hole walls to be 1 cm thick and vertical 1 cm thick

- Pigeon hole:

    – 26 cm broad × 24 cm high

    – Pigeon hole walls to be 1 cm thick and vertical 1 cm thick

- Base:

    – Height of the legs = 9 cms

    – 45 cms height at the bottom of the sorting case to be kept for keeping sorting trays

    – The total height of the sorting case from floor to the top should be 180 cms

- Back:

    – The back of the sorting case to have holes of diameter 4 cm each – 5 in each pigeon hole at a distance of 8 cm between the centers

- Material:

    – 3/4" thick plywood
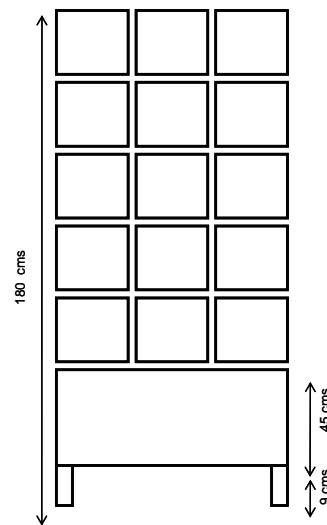
Trays Trolley

- The trolley to be made of Mild Steel

- 2 rectangular plates supported on 4 pipes with four 360 degree rotatable wheels

- The 1st plate to be at a height of 11 cms from the ground

- 2nd plate to be at a height of 60 cms from the ground

- The rectangular plates are to be of dimension 61 cms x 41 cms

- There should be an upward protrusion of 2.5 cms height for holding the tray on both the plates and on all sides

- At the height of 2nd plate, there should be a bend of 45 degree for the handle

- The handle length to be 25 cms

- Pipes:
  - Height: 54 cms from A to B (as shown in the diagram)
  - Diameter: 2.5 cms

- Wheels: Four wheels with 360 degree rotation and made of fibre
  - The diameter of the wheel to be 5 cms. The wheels to be fitted to the trolley with a small steel plate and 4 bolts and nuts
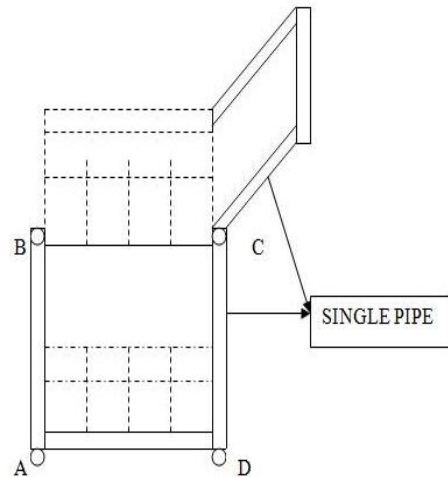
Roller Container

- 3 sides permanently fixed
- A tubular bar to be fixed at 1/4th height on the open side
- 2" rubber belt with a heavy shut off clamp at 3/4th height on the open side
- Dimension (in mm): 1100 X 700 X 1700 galvanised metal with 6" PU wheel moving 360 degree
- Frame Pipe: 28 mm dia, 3 mm thick
- Rod: 5 mm thick
- Wheel mounting plates: 6 mm thick
- Embossed sheets: at bottom 1.6 mm thick
- Trolley fitted with heavy duty synthetic rubber needle bearing castor wheels 200 mm with 360 degree movement
- A metal clipboard to be attached at the top of the trolley
- The trolley finished with galvanised silver colour
- Load bearing capacity: Minimum 500 Kgs

5.2. Bar code series for Speed Post

Name of Circle	Bar Code series for articles	Bar Code series for bags
Andhra Pradesh	EN	EBN
Assam	ES	EBS
APS	EE 90000000 – 99999999	EBE 0000000001 – 2499999999
Bihar	EF	EBF
Chhattisgarh	EC	EBC
Delhi	ED	EBD
Gujarat	EG	EBG
Haryana	EH	EBH
Himachal Pradesh	EE 70000000 – 79999999	EBE 2500000000 – 4999999999
Jammu & Kashmir	EE 80000000 – 89999999	EBE 5000000000 – 7499999999
Jharkhand	EJ	EBJ
Karnataka	EK	EBK
Kerala	EL	EBL
Maharashtra	EM	EBM
Madhya Pradesh	EI	EBI
North East	EE 40000000 – 49999999	EBE 7500000000 – 9999999999
Orissa	EO	EBO
Punjab	EP	EBP
Rajasthan	ER	EBR
Tamil Nadu	ET	EBT
Uttarakhand	EV	EBV
Uttar Pradesh	EU	EBU
West Bengal	EW	EBW

Speed Post corporate customers		
Delhi	EQ	
Maharashtra	EA	

5.3. Error reporting template

Error Report		भारतीय डाक IndiaPost

Date & Set/Shift	:	
Addressed to:	:	
Name of official filing the report:	:	

Designation of the Official (select one)

☐ H.S.A/Supervisor   ☐ Centre manager   ☐ Director

Centre's name	:	

Centre type (select one)

☐ Post office   ☐ BNPL centre   ☐ SPCC

Error category (select one)

☐ Missing bag label   ☐ Incorrect bag label   ☐ Damaged bag

☐ Damaged article   ☐ Manifest mismatch   ☐ Illegible address

☐ Mis-sorted articles   ☐ Staff absenteeism   ☐ Articles not on SpeedNet

Report contents

Comments

Signature   Centre stamp

5.4. Daily shift/set report

	Daily Shift/Set Report				
1	Name of the set/shift				
2	Date				
3	Name of the Head Sorting Asst./ Supervisor				
4	No. of Staff arranged	Group C		Group D	
		Regular	Outsourced	Regular	Outsourced
5	No. of Staff attended	Group C		Group D	
		Regular	Outsourced	Regular	Outsourced
6	No. of Absentees with Names				
7	No. of Late Comers with names and duration of late coming				
8	No. of Officials engaged in SpeedNet				
9	No. of Bags Opened				
10	No. of SPA Processed				
11	Productivity				
12	No. of Bags closed				
13	No. of Bags transferred to next set/shift				
14	Reasons for transfer of bags				
15	Name of the best Sorter of the set				
16	Name of the best Scanning official of the set/shift				

5.5. Supporting KPIs – data entry instructions

Why do we need to enter the data pertaining to Supporting KPIs?

Data entry by the Speed Post Centres is required for calculation of certain KPIs, such as:

- Articles processed per man hour
- Staff absenteeism

What all data is to be entered?

Two kinds of data are to be entered

- One time Master Data for the SPCC on
  - Number of sets/shifts
  - Naming conventions (nomenclature) for the sets/shifts
  - Timings (working hours) for each of the sets/shifts
  - Sanctioned/working strength for each set/shift for different categories of employees
- Daily Transactional Data for each set on
  - Staff presence for each category of employees
  - Number of actual man hours worked
  - Total articles processed in the set

When do we need to fill in the information?

- The Master data is to be filled once and later updated only in case of any modifications
- Transactional data is to be filled in on a daily basis

How do we enter the data?

We need to follow the under mentioned steps to enter the data:

1. Open Internet Explorer Browser

2. Type or (Copy & Paste) the following address:
   http://nspcdashboard.ptcmysore.gov.in/KPI

3. Select the option "SPCC" out of the three available options appearing on the web page and shown below:
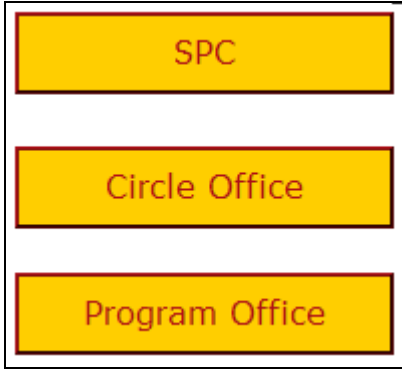
4. Log in with your appropriate credentials (user name and password given to your SPCC):

5. Select the option for Data Entry:

6. Select the appropriate option to enter the data (either Master Data or Transaction Data):

7. **For master data:** You would require to fill in the information pertaining to each set for your SPCC, key in the sanctioned/working staff strength for various categories (Group C, Group D and Outsourced staff), and fill in the set (shift) timings for each set as shown below:

Thus, the SPCC must enter the following information in the master data:

■ **NSPC Name:** Select the name of the NSPC from the available dropdown menu

■ **Set/shift Number:** Type in the numeric Set/shift Number (e.g., 1, 2, 3)

■ **Set/shift Name:** Type the name of the set/shift, if any, (e.g., Set A, Set 2A, Set 2B, Batch 1A/2B etc.)

■ **Sanctioned/working Strength (Group C):** Type the number (numeric) of sanctioned/working Group C staff in the mentioned Set. (e.g., 3, 4, 7 etc.)

■ **Sanctioned/working Strength (Group D):** Type the number of Group D sanctioned/working staff in the mentioned Set. (e.g., 3, 4, 7 etc.)

■ **Agreed Strength (Outsourced):** Type the number of outsourced staff agreed with the contractor in the mentioned Set. (e.g., 3, 4, 7 etc.)

■ **Shift/set Timings:** Enter the Shift/set timings for the mentioned Set/shift ('From' time and 'To' time is mandatory)

■ **For Transactional Data,** SPCCs need to fill in on a daily basis, for each set, the number of actual staff present in each category (Group C/ D/ Outsourced), extra hours worked if any, less hours worked, if applicable, duration of lunch break in the office etc.

Thus, for Transaction Data, the following information needs to be filled in on a daily basis by each SPCC for each set/shift concerned:

■ NSPC Name: Select the NSPC name from the dropdown menu

■ Set/shift Name: Select the Set/shift Name from the dropdown menu

■ Set/shift Number: Will appear on its own on selecting the Set/shift Name

■ Report Date: Select the report date from the calendar control

■ Number of employees planned from Group C: Type the number of employees planned for Group C in the mentioned Set/shift

■ Number of employees planned from Group D: Type the number of employees planned from Group D in the mentioned Set/shift

■ Number of employees planned from Outsourced Staff: Type the number of employees planned for Outsourced Staff in the mentioned Set/shift

■ Number of employees present on duty from Group C: Type the number of employees present on duty in from Group C in the mentioned Set/shift

- **Number of employees present on duty from Group D:** Type the number of employees present on duty from Group D in the mentioned Set/shift

- **Number of employees present on duty from Outsourced Staff:** Type the number of employees present on duty from Outsourced Staff in the mentioned Set/shift

- **Extra Hours worked:** Type total number of extra man hours worked. (e.g., if 5 persons have worked for 1 hour extra each then it should be typed 5)

- **Under Hours Worked:** Type total number of less man hours worked (e.g., if 3 persons have worked 30 minutes less each then type 1.5)

- **Lunch Break Duration:** Type the time in hour scheduled for lunch break in the defined set/shift. For example, if in a defined set/shift, 30 minutes are prescribed for lunch, then the reported time should be 0.5 Hours

- **Total Articles Processed:** Type in the total number of articles processed through SpeedNet only in the mentioned Set/shift

8. Now press the SUBMIT button after keying in all the information.

Department of Posts,

Ministry of Communications and IT, Government of India