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Guide to the Inspection of Printed Products 1993



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INTRODUCTION

The *Guide to the Inspection of Printed Products 1993* has been developed by the Quality Assurance Unit, Canada Communication Group (CCG), Public Works and Government Services Canada (PWGSC). It is the intent of this document to provide a method by which all customers will be able to inspect printed products purchased by PWGSC.

If this guide is followed, printed products with major or critical defects will be identified and brought to the attention of the PWGSC contracting officer. The officer will then take steps to determine whether or not the items meet the appropriate requirements of:

- Quality Levels for Printing;
- Quality Levels for Envelopes;
- Quality Levels for Forms.

A decision will be made as to whether or not the products are subject to rejection.

This guide is divided into three sections:

- Inspection of Printing;
- Inspection of Forms;
- Inspection of Envelopes.

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DEFINITION OF DEFECTS

2.1 Minor Defect

A minor defect is not of great consequence unless present in large numbers. It would normally pass unnoticed by the lay observer. If noticed at all, it would not normally be the source of comment, complaint or inconvenience. Small hickies, slightly grey type or an occasional broken type character would normally fall into this category.



2.2 Major Defect

These are defects which would normally be spotted by the lay observer and could justifiably result in a customer complaint. A print containing a major defect is still usable for the purpose intended, but may make the use more difficult than it should be or may affect the appearance of the printed material. For example, a poor colour match, streaky solids, lack of detail in the halftones, or a loose stitch in a saddle wired book are normally major defects.

2.3 Critical Defect

A critical defect is one which renders the printed material unusable for its intended end-use. Typical examples would be illegible text, transposed text, pages or signatures missing from a publication, or binding which allows the pages to fall out.

3 INSPECTION OF PRINTING

The purpose of this section is to provide guidance and assistance to CCG clients in the inspection of printing material purchased by PWGSC. The inspection procedures outlined in this guide should be performed by a designated person on receipt of each printed job.

3.1 Packaging

- Check that the packages are on skids which can be handled without damage at a later date.
- Count the number of packages received and multiply by the contents of each package to determine the quantity received. Compare to the quantity ordered.
- Check for exterior damage and examine seals on packages. Exterior damage may indicate interior damage to contents of packages.
- Check labelling of packages for contract number, title, date, stock number, etc.
- Verify that the packages are the correct size for the contents. Empty spaces in the packages which allow contents to move about could result in damage.
- Report any damage to the PWGSC contracting officer.

3.2 Selection of Samples

- At least five samples should be chosen at random from throughout the entire shipment.
- Larger shipments may require a greater number of samples to be inspected.



—Examples of sample size.

Shipment Size	Number of Samples
0 – 1,000	5
1,001 – 5,000	10
5,001 – 25,000	25
25,001 +	50

—Label samples with box or location number (e.g., sample 1 from box 1). This will facilitate further inspections or quarantining of part of a shipment.

3.3 Contents

- Check each sample for contents by comparing it to the original copy or proof.
- Check that the contents are consistent from sample to sample.
- Report any major or critical defects to the PWGSC contracting officer immediately.

3.4 Printing

- Is the printing clean, sharp, legible?
- Is there offsetting from copy to copy (ink coming off one page and dirtying the adjacent sheet)?
- Is there scumming (ink or spots where there should not be)?
- Is there smudging of the ink?
- Are there hickies (small white spots in the printed image) or extraneous markings (any marks which should not be there, e.g., oil, ink, glue) on the printed material?
- Is the ink colour correct? Is it consistent from sample to sample?
- Is the printed image aligned with the edge of the paper (skew)?
- Is the printed image registered aligned from page to page or from front page to back page?
- In multi-colour solid printing, is the colour registration as requested?
- In process colour or halftone printing, does the printed material reflect what was requested?
- Do the halftones contain mottles, scratches, broken screens, holes, plugging, etc.?
- Are any of the following defects present in the text:
 - broken type,
 - lack of clarity and sharpness,
 - density variation (page to page),
 - plugging (filling-in of characters; e.g., e, o),
- Examine the text and check for any defects listed below:
 - alignment (are characters aligned?),
 - type family or size not uniform,
 - doubling (double image),
 - ghosting (lighter image on a subsequent image),



- slurring (blurred impression),
 - embossing and/or showthrough of the image from one side of the paper to the other.
- Report any major or critical defect to the PWGSC contracting officer immediately.

3.5 Paper

- Does the paper feel and look like the paper requested?
- Are there any colour shade variations within one sample or from sample to sample?
- Are there any dirt or specks on the paper?
- Does the paper surface have ruptures, creases or tears?
- Report any major or critical defect to the PWGSC contracting officer immediately.

3.6 Finishing Operations

- Check that all samples are or have been trimmed to the size required.
- Check that all edges are clean and even.
- Check that the printed material has been folded properly and that the folds are at the proper positions.
- Check that the drilling or hole punching is complete and clean.
- Check that all staples or stitches are secure and in their correct position.
- Check the spine edges for excess glue used in adhesive binding.
- Ensure that all pages are securely fastened in each sample (e.g., crack open a book and check if any pages come loose).
- Report any major or critical defect immediately to the PWGSC contracting officer.

Throughout the inspection stages, several small or minor defects can be found which may or may not necessitate the intervention of the PWGSC contracting officer. Major or critical defects should be reported to PWGSC immediately in order to correct the situation.

If there are no serious defects found during these preliminary tests, then the shipment is probably acceptable.



4 INSPECTION OF FORMS

The purpose of this section is to provide guidance and assistance in the inspection of forms, i.e., snap-sets, flat, single and multi-part forms. The inspection methods outlined should be performed by a designated person on receipt of the shipment.

The following must be considered:

- (1) Sequentially numbered forms can be removed for inspection but must be returned, unused, to the same place in the same package after inspection.
- (2) The inspector is looking for correctness and consistency from sample to sample.

4.1 Packaging

- Check that the packages are on skids which can be handled without damage at a later date.
- Count the number of packages received and multiply by the contents of each package to determine amount received. Compare to amount ordered.
- Check for exterior damage and examine seals on packages. Exterior damage may indicate interior damage to contents of packages.
- Check for forms damaged by improper wrapping or handling.
- Check labelling of packages for contract number, title, date, stock number, etc.
- Verify that the packages are the correct size for the contents. Empty spaces in the packages which allow contents to move about could result in damage.
- Report any damage to the PWGSC contracting officer immediately.

4.2 Selection of Samples

- At least five samples should be chosen at random from throughout the entire shipment.
- Larger shipments may require a large number of samples to be inspected.
- Examples of sample size.

Shipment Size	Number of Samples
0 - 1,000	5
1,001 - 5,000	10
5,001 - 25,000	25
25,001 +	50



- Label samples with the box or location number (e.g., sample 1 from box 1) to facilitate further inspections or quarantining part of the shipment.
- Care should be taken to replace numbered forms in the proper sequence.

4.3 Contents

- Check each sample for contents by comparing the sample with the requested original copy.
- Check that the contents are consistent from sample to sample.
- Report any major or critical defect immediately to the PWGSC contracting officer.

4.4 Form Construction

- Ensure that all forms have been trimmed to the correct size and that the cut edges are clean and even.
- Ensure that all parts of a snap-set are firmly attached to the other parts.
- Ensure that the perforations are properly positioned, and that the perforations are strong enough to hold all parts and weak enough to snap apart without tearing forms.
- For carbon interleaved forms, ensure that the carbon is face down and as requested on the requisition (weight, caliper, etc.).
- Check registration of image from form to form.
- Check adhesion strength of forms that are padded.
- Report any major or critical defect to the PWGSC contracting officer immediately.

4.5 Copies (not to be done on single-part or numbered forms)

- With a ball-point pen and typewriter, fill in some sample text on each form.
- Visually inspect all copies, ensuring that both handwriting and typewriter output has transferred legibly.
- Check the samples' positioning on the copies and compare with the top form.
- Report poor transfer of image or poor positioning to the PWGSC contracting officer immediately.

4.6 Printing

- Is the printing clean, sharp, legible?
- Is there offsetting from copy to copy (ink coming off one page and dirtying the adjacent sheet)?
- Is there scumming (ink or spots where there should not be)?
- Is there smudging of the ink?
- Are there hickies (small spots in the printed image) or extraneous markings (any marks which should not be there, e.g., oil, ink, glue) on the printed material?
- Is the ink colour correct? Is it consistent from sample to sample?



- Is the printed image aligned with the edge of the paper (skew)?
- Is the printed image registered from page to page or from front page to back page?
- In multi-colour solid printing, is the colour registration as requested?
- Examine the text and check for any defects listed below:
 - broken type,
 - lack of clarity and sharpness,
 - density variation (from form to form),
 - type plugging (filling-in of characters, e.g., e, o),
 - alignment (are characters aligned?),
 - type family or size not uniform,
 - type doubling (double image),
 - ghosting (lighter image on a subsequent image),
 - slurring (blurred impression),
 - embossing and/or showthrough of the image from one side of the paper to the other.
- Report any major or critical defect to the PWGSC contracting officer immediately.

4.7 Paper

- Does the paper feel and look like the paper requested?
- Was the proper colour of stock used? Is the colour consistent from sample to sample?
- Are there dirt and specks on the surface of the paper?
- Are there ruptures, creases, tears?
- Report any major or critical defect to the PWGSC contracting officer immediately.

Throughout the inspection stages, several small or minor defects can be found which may or may not necessitate the intervention of the PWGSC contracting officer. Major or critical defects should be reported to PWGSC immediately in order to correct the situation.

If there are no serious defects found during these preliminary tests, then the shipment is probably acceptable.

5

INSPECTION OF ENVELOPES

The purpose of this section is to provide guidance and assistance to our clients in the inspection of envelopes purchased by PWGSC. The inspection procedures outlined in this guide should be performed by a designated person on receipt of each shipment.



5.1 Packaging

- Check that the packages are on skids which can be handled without damage at a later date.
- Count the number of packages received and multiply by the contents of each package to determine amount received. Compare to amount ordered.
- Check for exterior damage and examine seals on packages. Exterior damage may indicate interior damage to contents of packages.
- Check labelling of packages for contract number, title, date, stock number, etc.
- Verify that the packages are the correct size for the contents. Empty spaces in the packages which allow contents to move about could result in damage.
- Report any damage to the PWGSC contracting officer immediately.

5.2 Selection of Samples

- At least five samples should be chosen at random from throughout the entire shipment.
- Larger shipments may require further inspection samples.
- Examples of sample size.

Shipment Size	Number of Samples
0 – 1,000	5
1,001 – 5,000	10
5,001 – 25,000	25
25,001 +	50

- Label samples with box or location number (e.g., sample 1 from box 1). This will facilitate further inspections or quarantining of part of a shipment.

5.3 Construction

- Check that the envelopes lie flat and are free from distortion.
- Check that the flap opening and the folds are located as requested.
- Check that the dimensions are correct and consistent.
- Check that the flaps are properly glued. Is there any excess glue?
- Test the adhesive on the main flap by applying water to the adhesive, seal the envelope, allow to stand for five minutes and peel apart. If the paper surface ruptures, the glue is satisfactory.
- Peel apart the two layers of the pre-sealed seams. If this ruptures the paper, the seams are acceptable.
- Ensure that the envelopes are packaged in such a way that when stored, they lie in a flat position.



5.4 Printing

- Is the printing clean, sharp, legible?
- Is there offsetting from copy to copy (ink coming off one page and dirtying the adjacent sheet)?
- Is there scumming (ink or spots where there should not be)?
- Is there smudging of the ink?
- Are there hickies (small white spots in the printed image) or extraneous markings (any marks which should not be there, e.g., oil, ink, glue) on the printed material?
- Is the ink colour correct? Is it consistent from sample to sample?
- Is the printed image aligned with the paper (skew)?
- Is the printed image registered from page to page or from front page to back page?
- In multi-colour solid printing, is the colour registration as requested?
- Examine the text and check for any defects as listed below:
 - broken type,
 - lack of clarity and sharpness,
 - density variation (from form to form),
 - type plugging (filling-in of characters; e.g., e, o),
 - alignment (are characters aligned?),
 - type family or size not uniform,
 - type doubling (double image),
 - ghosting (lighter image on a subsequent image),
 - slurring (blurred impression),
 - embossing and/or showthrough of the image from one side of the paper to the other.
- Report any major or critical defect to the PWGSC contracting officer immediately.

5.5 Paper

- Does the paper feel and look like the paper requested?
- Was the proper colour of stock used? Is the colour consistent from sample to sample?
- Are there dirt and specks on the surface of the paper?
- Are there ruptures, creases, tears?
- Report any major or critical defect to the PWGSC contracting officer immediately.

Throughout the inspection stages, several small or minor defects can be found which may or may not necessitate the intervention of the PWGSC contracting officer. Major or critical defects should be reported to PWGSC immediately in order to correct the situation.

If there are no serious defects found during these preliminary tests, then the shipment is probably acceptable.



PRINTING INSPECTION CHECKLIST

The following is a checklist to use while performing on-receipt inspections of printing. If a defect is found, decide whether it is minor, major or critical. Immediately report all major and critical defects in the shipment to the PWGSC contracting officer.

6.1 Check for These Items when Inspecting Printing

6.1.1 Packaging

- on skids
- correct quantity
- exterior conditions
- seals
- labelling
- size

6.1.2 Contents

- contents as required
- consistent

6.1.3 Paper

- correct type
- colour variation
- dirt, specks, tears
- surface ruptures, creases

6.1.4 Finishing

- edges trimmed to correct size
- edge trim clean and even
- proper folding
- folding in position
- holes complete, clean
- staples, stitches secure
- staples, stitches in position
- excess glue on spine
- pages secure

6.1.5 Print Quality

- clean, sharp, legible
- offsetting
- scumming
- smudging
- hickies
- correct ink colour
- consistent ink colour
- skew



- registration
- colours and halftones
- mottles
- scratches
- broken screens
- holes
- plugging
- broken type
- density variation
- alignment
- type family
- type size
- doubling
- ghosting
- slurring
- embossing, showthrough

6.2 Quantity of Samples to Inspect

Label all samples with box and/or location number.

Shipment Size	Number of Samples
0 - 1,000	5
1,001 - 5,000	10
5,001 - 25,000	25
25,001 +	50



7 ENVELOPE INSPECTION CHECKLIST

The following is a checklist to use while performing on-receipt inspections of envelopes. If a defect is found, decide whether it is minor, major or critical. Immediately report all major and critical defects in the shipment to the PWGSC contracting officer.

7.1 Check for These Items when Inspecting Envelopes

7.1.1 Packaging

- on skids
- correct quantity
- exterior conditions
- seals
- labelling, size
- envelopes lie flat

7.1.2 Paper

- correct type of paper
- colour variation
- dirt, specks, tears in paper
- surface ruptures, creases

7.1.3 Construction

- flat, free from distortion
- dimensions correct
- consistent dimensions
- glue properly applied to flaps
- seams properly glued and sealed

7.1.4 Print Quality

- clean, sharp, legible
- offsetting
- scumming
- smudging
- hickies
- correct ink colour
- consistent ink colour
- skew
- registration
- colours and halftones
 - mottles
 - scratches



- broken screens
- holes
- plugging
- broken type
- density variation
- plugging
- alignment
- type family
- type size
- doubling
- ghosting
- slurring
- embossing, showthrough

7.2 Quantity of Samples to Inspect

Label all samples with box and/or location number.

Shipment Size	Quantity of Samples
0 - 1,000	5
1,001 - 5,000	10
5,001 - 25,000	25
25,001 +	50



FORM INSPECTION CHECKLIST

The following is a checklist to use while performing on-receipt inspections of forms. If a defect is found, decide whether it is minor, major or critical. Immediately report all major and critical defects in the shipment to the PWGSC contracting officer.

8.1 Check for These Items when Inspecting Forms

8.1.1 Packaging

- on skids
- correct quantity
- exterior conditions
- seals
- labelling
- size

8.1.2 Contents

- contents as required
- consistent

8.1.3 Paper

- correct type
- colour variation
- dirt, specks, tears
- surface ruptures, creases

8.1.4 Construction

- edges trimmed to correct size
- edge trim clean and even
- all parts attached to set
- perforations in position
- perforations proper strength
- carbon weight, caliper
- strength of adhesive on pads

8.1.5 Print Quality

- clean, sharp, legible
- offsetting
- scumming
- smudging
- hickies
- correct ink colour
- consistent ink colour
- skew
- registration



- colours and halftones
 - mottles
 - scratches
 - broken screens
 - holes
 - plugging
- broken type
- density variation
- plugging
- alignment
- type family
- type size
- doubling
- ghosting
- slurring
- embossing, showthrough

8.1.6 Copies

- handwriting transfers
- typewriting transfers
- image registering on copies

8.2 Quantity of Samples to Inspect

Label all samples with box and/or location number.

Shipment Size	Quantity of Samples
0 – 1,000	5
1,001 – 5,000	10
5,001 – 25,000	25
25,001 +	50