

**PUBLISHING SERVICES SUB-DIVISION  
CARTOGRAPHIC SERVICES SECTION**

**QUALITY ASSURANCE INSTRUCTIONS  
CSS-04 Quality Control**

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**1.0 PURPOSE**

- 1.1 The purpose of this document is to describe the cartographic activities carried out in Quality Control.

**2.0 SCOPE**

- 2.1 To review the work produced in the Cartographic Services Section and ensure adherence to existing standards and specifications.

**3.0 RESPONSIBILITIES**

- 3.1 Quality Control is responsible for having a working knowledge of this QAI.
- 3.2 Quality Control is responsible for ensuring all necessary steps outlined in this QAI are adhered to and the product is released in a timely manner.
- 3.3 Quality Control is responsible to ensure all products produced by Cartographic Services adhere to all cartographic specifications and standards.
- 3.4 The designated manager of this QAI is responsible for considering all DCRs and NCRs issued against this QAI, writing new instructions when necessary and informing end-users of the changes made.
- 3.5 The Webmaster is responsible for updating the controlled version of this QAI on the Internet in a timely manner.
- 3.6 ESSInfo Publishing Services employees and other users of this QAI are encouraged to provide feedback to the Quality Management Representative, Production Coordinator, and Head Publishing Services on its accuracy, completeness, simplicity, and usefulness by issuing a Document Change Request or Quality System Improvement Request.

**4.0 INSTRUCTIONS**

(All instructions apply to Quality Control unless stated otherwise)

**4.1 INFORMATION ANALYSIS**

- Receive the QAE File and necessary manuscripts as per Quality Control Checklist.

**4.2 PRODUCTS**

- The QAI for each product indicates when and what kind of checking needs to be performed by Quality Control, the Production Coordinator or the client.
- The Production Coordinator may request Quality Control to verify the final product.
- In some cases, the client can also perform Quality Control on the final product and approve the final product in writing or verbally with the Production Coordinator
- The brief descriptions following are intended to give an overview of the products and the related Quality Control. Reference the QAI of each product for more details.

**4.2.1 GEOLOGICAL MAPS AND POSTERS**

- Map and poster production by Cartographic Services for release as an on-demand plot, offset print or digital release (CDROM, Internet).
- Archived map upgrade to the latest GSC Cartographic Digital Standards for digital release (CDROM, Internet).
- Quality Control indicated in section 4.2.5 of this QAI is required.

**4.2.2 CHECKING PROCESS CHART**

<b>PRODUCTS</b>	1 <sup>st</sup> drafting check (4.8)	2 <sup>nd</sup> drafting check (4.9)	Final drafting check (4.10)	1 <sup>st</sup> digital check (4.11)	Final digital check (4.11)	Separates (4.12)	Negatives (4.12)	Colour proof (4.13)	Final approval (4.14 & 4.16)
Offset Printed Product	✓	OPT	OPT	✓	✓	✓	✓	✓	✓
On-Demand Product	✓	OPT	✓	✓	✓	N/A	N/A	N/A	✓
Digital Release	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	✓
Digital Upgrade	N/A	N/A	N/A	✓	✓	N/A	N/A	N/A	✓

✓ means required. N/A means Not Applicable. OPT means Optional. Process numbers refer to QAI CSS-02.

**4.3 QUALITY CONTROL**

- Ensure that all steps previous to Quality Control steps on the Cartographic Production Control Form have been signed.
- Review the content of the QAE File received from the Digital Cartographer or the Production Coordinator.
- Sign and date the completion of each Quality Control step on the Cartographic Production Control Form.
- The Production Coordinator, Quality Control or the Digital Cartographer indicates all Quality Control steps that are not applicable on the Cartographic Production Control Form.
- An optional Quality Control memo may be added in the QAE file for comments and observations. This memo must clearly identify for which Quality Control step these comments apply (Ref. Section 4.2.5 of this QAI) and must be signed and dated.
- Quality Control and the Digital Cartographer refer to the Quality Control Checklist to apply all applicable verifications on a product.

- If a client supplies other items after a Quality Control step has been completed on the main product, add an additional Cartographic Production Control Form to the QAE File, and mark or check the box “This form is used to control additional data only” to indicate additional data is being added to the map. Apply all necessary Quality Control steps to these new items according to the product QAI, and sign the new Cartographic Production Control Form until it reaches the same Quality Control step of the main product. Then return to the original Cartographic Production Control Form and continue the remaining processes.
- 4.3.1 1st DRAFTING CHECK (process 4.8)
- Receive an on-demand plot of the product except C-Series where a good quality print is sufficient.
  - Check the product according to GSC Cartographic Design Specifications and the Quality Control Checklist.
  - Indicate observations on the plot/print.
  - Sign and date the plot/print and identify it as the 1<sup>st</sup> drafting check.
  - Sign and date the completion of this step on the Cartographic Production Control Form under “Quality Control - 1<sup>st</sup> drafting check”.
- 4.3.2 2nd DRAFTING CHECK (process 4.9)
- This step may not be required if the amount of observations indicated on the 1<sup>st</sup> drafting check does not justify a second check. The Digital Cartographer or Quality Control in agreement with the Production Coordinator sign, date, and check the Not Applicable box on the Cartographic Production Control Form under “Quality Control - 2<sup>nd</sup> drafting check”.
  - Receive a PDF file or new plot/print of the corrected product.
  - Verify that all observations indicated from the 1<sup>st</sup> drafting check have been completed, and indicate any new or missed observations on the latest plot/print.
  - Sign and date the latest plot/print and identify it as the 2<sup>nd</sup> drafting check.
  - Sign and date the completion of this step on the Cartographic Production Control Form under “Quality Control - 2<sup>nd</sup> drafting check”.
- 4.3.3 FINAL DRAFTING CHECK (process 4.10)
- A plot/print for final drafting check is optional for offset printed products because the final drafting check can be done on the colour proof (Ref. section 4.13 of this QAI) if the amount of observations on previous drafting checks does not justify creating a new plot/print. However, if a plot/print is needed, it will be considered as the final drafting check before creating the final negatives.
  - Receive a PDF file, new plot/print, or the colour proof from final negatives of the corrected product.
  - Author and/or Editorial comments could exist on the 1<sup>st</sup> or 2<sup>nd</sup> drafting check plot whichever is the latest.
  - Verify that all observations indicated from the 2<sup>nd</sup> drafting check and Author and/or Editorial comments have been completed, and indicate any new or missed observations on the latest plot/print or the colour proof.
  - Sign and date the completion of this step on the Cartographic Production Control Form under “Quality Control - Final drafting check”.

- 4.3.4 1<sup>st</sup> DIGITAL CHECK (process 4.11)
- Copy the workspace from the Digital Cartographer's workstation.
  - Check the digital data according to GSC Cartographic Digital Standards and the Quality Control Checklist.
  - Indicate observations in a digital text file and email to Digital Cartographer.
  - Delete the workspace once digital check is complete.
  - Sign and date the completion of this step on the Cartographic Production Control Form under "Quality Control - 1<sup>st</sup> digital check".
- 4.3.5 FINAL DIGITAL CHECK (process 4.11)
- Copy the workspace from the Digital Cartographer's workstation
  - Verify that all observations indicated from the 1st digital check have been completed.
  - Indicate any new or missed observations in a digital text file and email to Digital Cartographer
  - Delete the workspace once digital check is complete
  - Sign and date the completion of this step on the Cartographic Production Control Form under "Quality Control - Final digital check".
- 4.3.6 SEPARATES (process 4.12)
- All map elements are separated in respect to the plating colours. Normally Cyan, Magenta, Yellow, Black for map features and Drainage Blue and Brown for base features. Other postscript files may be necessary if special printing inks are used.
  - Receive a plot for each of these plating colours.
  - Verify all map elements appear on the proper colour separate using the latest on-demand plot as reference before the Digital Cartographer submits files for creation of final printing negatives.
  - Refer to the Quality Control Checklist as a guide.
  - Sign and date the completion of this step on the Cartographic Production Control Form under "Quality Control - Separates".
- 4.3.7 NEGATIVES (process 4.12)
- Receive the final negatives for each of the plating colours.
  - Verify final negatives as outlined in the Quality Control Checklist.
  - Sign and date the completion of this step on the Cartographic Production Control Form under "Quality Control - Negatives".
- 4.3.8 COLOUR PROOF (process 4.13)
- Receive the colour proof created from the final negatives.
  - Verify colour proof as outlined in the Quality Control Checklist.
  - For Offset products a Quality Control step for final drafting check may be required on the colour proof (Ref. section 4.3.3 of this QAI).
  - Sign and date the completion of this step on the Cartographic Production Control Form under "Quality Control - Colour proof".
- 4.3.9 APPROVAL OF FINAL PRODUCT (process 4.14)
- The Production Coordinator or Quality Control reviews the final on-demand plot or colour proof of the map against the final drafting check.
  - If offset printing, the Production Coordinator or Quality Control signs and dates the Colour Proof Label.
  - The Production Coordinator or Quality Control signs and dates the completion of this step on the Cartographic Production Control Form under "Approval of final product".

4.3.10 APPROVAL OF FINAL DIGITAL PRODUCT (process 4.16)

- The Production Coordinator or Quality Control verifies the content and format of the CD-ROM as outlined in the Quality Control Checklist.
- The Production Coordinator or Quality Control signs and dates the completion of this step on the Cartographic Production Control Form under “Approval of final digital product”.

4.4 RETURN OF ITEMS

- Return all product items to the Digital Cartographer and/or Production Coordinator.
- Explain verbally, as requested by the Digital Cartographer and/or Production Coordinator, any notes indicated on any drafting check plots, colour proof, or quality control memos resulting from a Quality Control step.

**5.0 REFERENCES**

- Quality Control Checklist
- Cartographic Production Control Form
- GSC Cartographic Design Specifications
- GSC Cartographic Digital Standards
- QAE File (Quality Assurance Evidence File)
- QAI CSS-02 Geological Map/Poster Production
- Document Change Request (DCR)
- Quality System Improvement Request (NCR)
- CPS Printing\Bindery Release Form

**6.0 WORKFLOW CHART**

