Technologist Quality Control Procedures

The specific procedures for the Technologist Quality Control Program are those specified in the most current ACR MRI QC Manual.

WEEKLY MRI EQUIPMENT QUALITY CONTROL FOR LARGE PHANTOM

| MRI Facility | y Name: | | | | | | MRI Sca | anner Iden | tifier: | | | | |
|----------------|-----------------|---------|-----------|---------------------------|-------------|--------------------------|-------------|---------------|----------------------|-------------------------------|------------------------|--------|-------|
| Date | Setup & Posi | tion | Center of | TX Gain or Attenuation | | etric Accur asurement | | Spatial R | ontrast esolution | Low-Contrast Detectability | Artifact Evaluation | Tested | Notes |
| | Accu | racy | Frequency | (dB) | Sag Loc | Axial S | lice 5 | Slie | ce 1 | Slice # | | Ву | |
| | Accuracy | Console | (Hz) | (UB) | H/F (mm) | A/P (mm) | R/L (mm) | Upper Left | Lower Right | # of Spokes | Any present? | | |
| Action limits: | ± 5 mm | Yes/No | | | 148 ± 2 mm | 190 ± 2 mm | 190 ± 2mm | ≤ 1.0 mm | ≤ 1.0 mm | | Yes/No | | |
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Qualified Medical Physicist/MRI Scientist

Reviewed by:

Date of Review:

WEEKLY MRI EQUIPMENT QUALITY CONTROL FOR LARGE PHANTOM

| MRI Facility | y Name: | | | | | | MRI Sca | anner Iden | tifier: | | | | |
|----------------|-----------------|---------|-----------|---------------------------|-------------|--------------------------|-------------|---------------|----------------------|-------------------------------|------------------------|--------|-------|
| Date | Setup & Posi | tion | Center of | TX Gain or Attenuation | | etric Accur asurement | | Spatial R | ontrast esolution | Low-Contrast Detectability | Artifact Evaluation | Tested | Notes |
| | Accu | racy | Frequency | (dB) | Sag Loc | Axial S | lice 5 | Slie | ce 1 | Slice # | | Ву | |
| | Accuracy | Console | (Hz) | (UB) | H/F (mm) | A/P (mm) | R/L (mm) | Upper Left | Lower Right | # of Spokes | Any present? | | |
| Action limits: | ± 5 mm | Yes/No | | | 148 ± 2 mm | 190 ± 2 mm | 190 ± 2mm | ≤ 1.0 mm | ≤ 1.0 mm | | Yes/No | | |
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Qualified Medical Physicist/MRI Scientist

Reviewed by:

Date of Review:

WEEKLY MRI EQUIPMENT QUALITY CONTROL FOR LARGE PHANTOM

| MRI Facility | y Name: | | | | | | MRI Sca | anner Iden | tifier: | | | | |
|----------------|-----------------|---------|-----------|---------------------------|-------------|--------------------------|-------------|---------------|----------------------|-------------------------------|------------------------|--------|-------|
| Date | Setup & Posi | tion | Center of | TX Gain or Attenuation | | etric Accur asurement | | Spatial R | ontrast esolution | Low-Contrast Detectability | Artifact Evaluation | Tested | Notes |
| | Accu | racy | Frequency | (dB) | Sag Loc | Axial S | lice 5 | Slie | ce 1 | Slice # | | Ву | |
| | Accuracy | Console | (Hz) | (UB) | H/F (mm) | A/P (mm) | R/L (mm) | Upper Left | Lower Right | # of Spokes | Any present? | | |
| Action limits: | ± 5 mm | Yes/No | | | 148 ± 2 mm | 190 ± 2 mm | 190 ± 2mm | ≤ 1.0 mm | ≤ 1.0 mm | | Yes/No | | |
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Qualified Medical Physicist/MRI Scientist

Reviewed by:

Date of Review:

LASER PRINTER QC STARTUP WORKSHEET

| Day | 0% patch | 10% patch | 40% patch | 90% patch |
|---------|----------|-------------|-----------|-----------|
| | | Start Date: | | |
| Day 1 | | | | |
| Day 2 | | | | |
| Day 3 | | | | |
| Day 4 | | | | |
| Day 5 | | | | |
| Average | | | | |

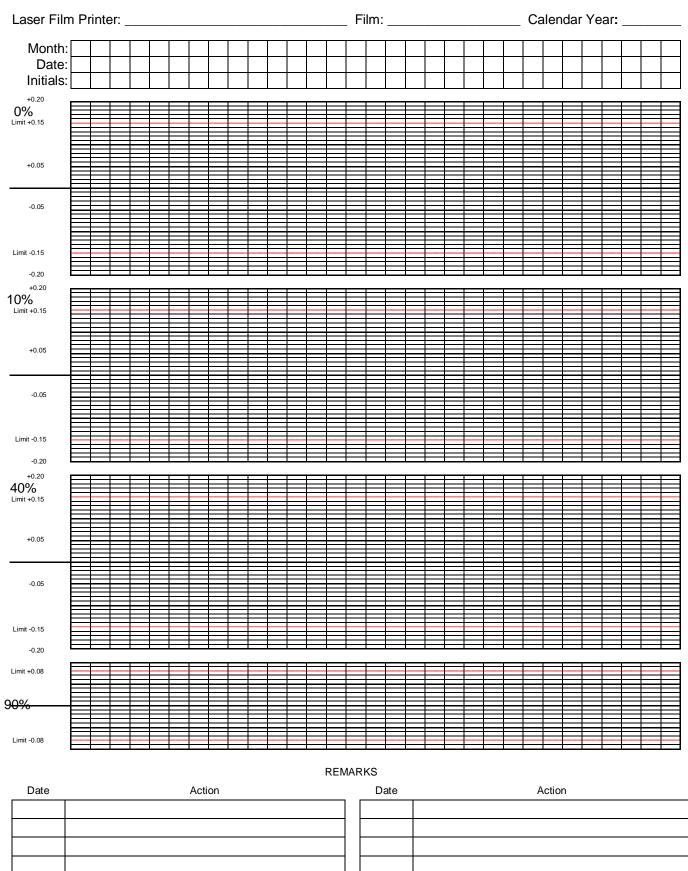
For five consecutive working days and using the SMPTE in the upper left corner of the page, measure the optical density each of the specified patches (0%, 10%, 40% & 90%) of the six-onone printout of SMPTE Pattern as described on pages 53 through 57 of the 2004 ACR MRI Quality Control Manual.

LASER PRINTER QC STARTUP WORKSHEET

| Day | 0% patch | 10% patch | 40% patch | 90% patch |
|---------|----------|-------------|-----------|-----------|
| | | Start Date: | | |
| Day 1 | | | | |
| Day 2 | | | | |
| Day 3 | | | | |
| Day 4 | | | | |
| Day 5 | | | | |
| Average | | | | |

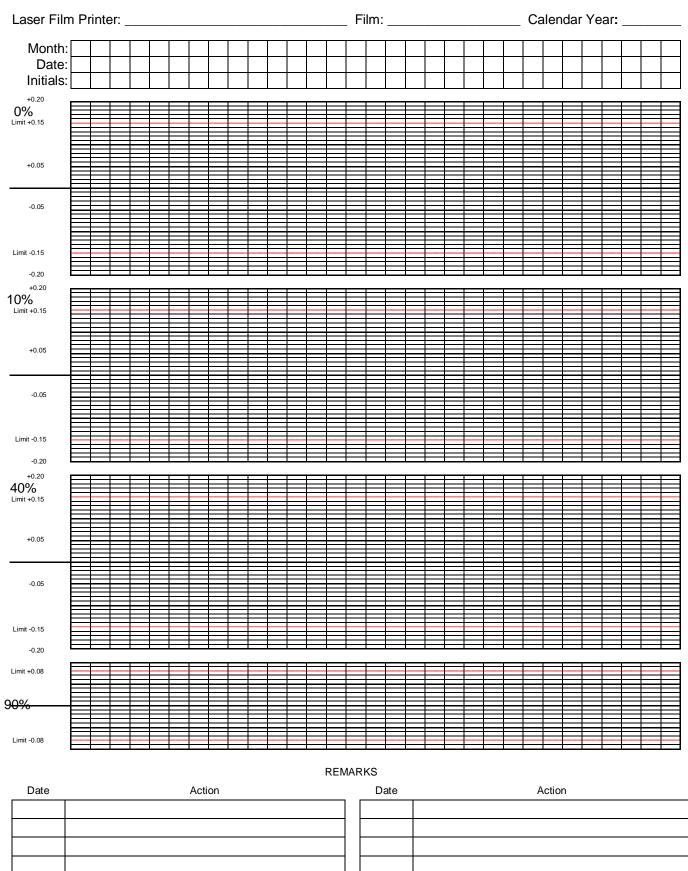
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LASER FILM PRINTER CONTROL CHART – PERFORMED WEEKLY



This Laser Film Printer Control Chart is based upon information available on the ACR web site.

LASER FILM PRINTER CONTROL CHART – PERFORMED WEEKLY



This Laser Film Printer Control Chart is based upon information available on the ACR web site.

MRI Accreditation Program Visual Checklist

| MRI Facility | Name: | | | | | | | | | | | IRI | <u>Sca</u> | nne | er I | de | <u>ntif</u> | ier: | | | | |
|-----------------------------|---|------|--|--|------|--|------|--|--|------|--|-----|------------|-----|------|----|-------------|------|--|------|------|--|
| | Date: | | | | | | | | | | | | | | | | | | | | | |
| | Table position and other displays | | | | | | | | | | | | | | | | | | | | | |
| Patient | Alignment lights | | | | | | | | | | | | | | | | | | | | | |
| Transport and Gantry | Horizontal smoothness of motion and stability | | | | | | | | | | | | | | | | | | | | | |
| | Vertical motion smoothness and stability | | | | | | | | | | | | | | | | | | | | | |
| Filming | Laser camera | | | | | | | | | | | | | | | | | | | | 1 | |
| Viewing | Light boxes | | | | | | | | | | | | | | | | | | | | | |
| | RF door contacts | | | | | | | | | | | | | | | | | | | | | |
| | RF window-screen integrity | | | | | | | | | | | | | | | | | | | | | |
| RF Integrity and Control | | | | | | | | | | | | | | | | | | | | | | |
| | Patient monitor (if present) | | | | | | | | | | | | | | | | | | | | | |
| | Patient intercom | | | | | | | | | | | | | | | | | | | | | |
| | Room temperature/room humidity | | | | | | | | | | | | | | | | | | | | | |
| | Emergency cart | | | | | | | | | | | | | | | | | | | | | |
| Facility | Safety warning signage | | | | | | | | | | | | | | | | | | | | | |
| Safety | Door indicator switch (if installed) | | | | | | | | | | | | | | | | | | | | | |
| | Cryogen level indicator | | | | | | | | | | | | | | | | | | | | | |
| | Pass = ☑ Fail =F Does Not Apply = NA | | | | | | | | | | | | | | | | | | | | | |
| | Technologist Initials: | | | | | | | | | | | | | | | | | | | | | |

MRI Accreditation Program Visual Checklist

| MRI Facility | Name: | | | | | | | | | | | IRI | <u>Sca</u> | nne | er I | de | <u>ntif</u> | ier: | | | | |
|-----------------------------|---|------|--|--|------|--|------|--|--|------|--|-----|------------|-----|------|----|-------------|------|--|------|------|--|
| | Date: | | | | | | | | | | | | | | | | | | | | | |
| | Table position and other displays | | | | | | | | | | | | | | | | | | | | | |
| Patient | Alignment lights | | | | | | | | | | | | | | | | | | | | | |
| Transport and Gantry | Horizontal smoothness of motion and stability | | | | | | | | | | | | | | | | | | | | | |
| | Vertical motion smoothness and stability | | | | | | | | | | | | | | | | | | | | | |
| Filming | Laser camera | | | | | | | | | | | | | | | | | | | | 1 | |
| Viewing | Light boxes | | | | | | | | | | | | | | | | | | | | | |
| | RF door contacts | | | | | | | | | | | | | | | | | | | | | |
| | RF window-screen integrity | | | | | | | | | | | | | | | | | | | | | |
| RF Integrity and Control | | | | | | | | | | | | | | | | | | | | | | |
| | Patient monitor (if present) | | | | | | | | | | | | | | | | | | | | | |
| | Patient intercom | | | | | | | | | | | | | | | | | | | | | |
| | Room temperature/room humidity | | | | | | | | | | | | | | | | | | | | | |
| | Emergency cart | | | | | | | | | | | | | | | | | | | | | |
| Facility | Safety warning signage | | | | | | | | | | | | | | | | | | | | | |
| Safety | Door indicator switch (if installed) | | | | | | | | | | | | | | | | | | | | | |
| | Cryogen level indicator | | | | | | | | | | | | | | | | | | | | | |
| | Pass = ☑ Fail =F Does Not Apply = NA | | | | | | | | | | | | | | | | | | | | | |
| | Technologist Initials: | | | | | | | | | | | | | | | | | | | | | |

COMMENTS/CORRECTIVE ACTION

| | Initials |
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| Image: Constraint of the second se | |
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| Image: Sector | |
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| Image: Constraint of the second se | |
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