VENDOR QUALITY MANAGEMENT

HOW TO GUIDE

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J.Crew Team
J.CREW GROUP, LLC.

Table of Contents

Terms of Index

- **Bill of Materials (BOM)**

  A list of the raw materials, sub-assemblies, intermediate assemblies, sub-components, parts, and the quantities of each needed to manufacture an end product.

- **Brand Technical Manager (BTM)**

  An individual nominated by a Vendor, direct report to SBTM, oversee QA activities on production. It requires technical expertise, adequate knowledge of both management and technical services from pre-production sample to production.

- **Development Technical Manager (DTM)**

  An individual nominated by a Vendor, direct report to SBTM, oversee the process of sample development. It requires technical expertise, adequate knowledge of both management and technical services in development sample and fit sample stage.

- **Development Quality System (DQS)**

  Development Quality System consists of organization-wide continuously efforts to install, improve and make a permanent climate in product development, sample management process to enhance high-quality products.

- **Factory Certified Auditor (FCA)**

  An individual who is specifically trained to monitor and review an organizations standard of quality.

- **Purchase Order (PO)**

  A purchase order is a document used by businesses to state an offer from a buyer to a seller. This details information about stock quantities, type of product, and agreed prices.

- **Pre-productions (PP)**

  The process of working on a product of small-scale prior to the official production.

- **Quality Assurance (QA)**

  A process/department that ensures quality standards are maintained.

- **Quality Management System (QMS)**

  Quality Management System is defined as a formalized system that documents processes, procedures, and responsibilities for achieving quality policies and objectives.

- **Responsible, Accountable, Consulted, Informed (RACI)**

  RACI is interpreted into charts as a matrix for all activities and responsibilities for various people and roles in an organization.

- **Standard Operation Procedure (SOP)**

  A set of step-by-step instructions compiled by an organization to help workers carry out complex routine operations.

- **Senior Brand Technical Manager (SBTM)**

  An individual nominated by a Vendor to oversee J.Crew business, sample development, fit sampling and production. It requires technical expertise, adequate knowledge of management and technical services in both sample room and production.

- **Top of Production (TOP)**

  Sets of samples which are obtained from the first production of a product. It is the final sample stage during production when lines can be viewed before customers can purchase.

- **Total Quality Management (TQM)**

  Total quality management consists of organization-wide efforts to install and make a permanent climate in which an organization continuously improves its ability to deliver high-quality products and services to customers.

- **Work in Progress (WIP)**

  An unfinished project that is under completion.

Total Quality Management

Introduction

J.Crew is committed to offering our customers a product with an elevated quality level that is reflected in our fit, make and materials.

Our expectation is that vendors share this commitment to quality in all aspects of their organization and this is reflected in the development and bulk manufacturing processes. J.Crew expects vendors to adopt a **"RIGHT FIRST TIME"** approach to each and every operation and process.

Factory Evaluation

Factory Evaluation: All manufacturing facilities must be evaluated and approved for quality processes by an authorized party before an order may be placed (this evaluation is separate from the Social Compliance Audit.) This evaluation may conclude one of the following:

- Approve to proceed to a waste order, test order or bulk order.
- Unsuitable to proceed without improvements. In this case, a second evaluation must be performed after improvements.

The cost of a Q.A. Audit performed by J.Crew will be directly charged back to the vendor at a rate of US$ 1,000 per audit plus any additional travel and accommodation costs.

Where a 3rd party service is authorized by J.Crew to perform the Q.A. Audit the costs will be billed directly to the vendor requesting this service by the 3rd party.

Sample room process evaluation

DTM is responsible to evaluate sample room according to J.Crew sample room process:

- Post/generate sample instruction to/from PLM system.
- Verify TAG information, include sizes, fabric and trims, wash, component, etc.
- Visual inspection the sample for quality and handling.
- Measure the sample based on How to Measure
- Construction check based on the Tech Pack from PLM.

Quality Administration

- Following approval to proceed to test or bulk order, the SBTM/BTM must submit an updated time and action report (T&A) to J.Crew QA, within ten working days of order receipt, as per the standard format in the addendum.
- Quality Management activities must be tracked against the Work in Progress (WIP) report and arranged by the BTM, including 3rd party audits when required.

Fit Approval Process

Fit Approval process is management by J.Crew Technical Design department.

1. For initial orders, ideally for spring and fall seasons, we request SBTM/DTM to be present at New York Headquarters (HQ) initial fitting [PRECAP]. The majority of garment revisions happen at this initial fitting.
2. Assort two sample or first fit samples are passed off to Tech Design team. The sample handoff package will consist of Design Card copy; garment, net /zero shrinkage patterns in soft paper, bill of materials (BOM) page.
3. The initial sample should be spacing within tolerance on all points of measure. The pattern should include all pieces used in the garment, including interlining, canvas and lining. BOM should include which components are actual and substitute quality.
4. Sample is fit at J.Crew HQ.
5. Initial Techpack is created and evaluation package is sent back to Factory/ Vendor. Package will include a Portable Document Format (PDF) Techpack with comments and spec evaluation. It may or may not include a pinned/altered garment and revised paper pattern with corrections indicated.
6. Upon receipt and evaluation, the factory can correspond directly to technical designer assigned with questions and suggestions. At this time, mockups with alternate construction suggestions should be submitted.
7. Factory counter sample submission will include a garment evaluated by a technician that specs out within tolerance on all points of measure, a revised soft paper pattern, and a BOM page with fabric and component indication (sample vs bulk yardage, lining/interlining/component substitution, thread quality and size, etc.)
8. Turnaround time for sample submission will vary according to category and allocation. On average, it is eighteen days from factory receipt of Techpack to factory shipment of sample.
9. This process is repeated until sample is approved for bulk.
10. Specific categories will have additional requests. Sweaters will require all yarn information, gauge, weight, and course/wale count. Knits will require gram weight. We may require addition mock-ups or samples if there are construction/ pressing/packing issues that are unresolved.

Preproduction Samples

1. 2 x Pre-Production samples must be prepared and approved by the SBTM/BTM prior to production commencing.
2. PP Samples must be reflective of bulk and once approved are considered the contract for quality.
3. One sample will be retained by the Vendor and the other sample will be sent to by J.Crew QA.
4. On a random basis, J.Crew will review PP samples to ensure correlation.

Preproduction Meeting

1. SBTM/BTM must hold a PP meeting with manufacturing line managers following PP sample approval and prior to cutting. PP Meeting must be documented on a format approved by J.Crew QA.
2. J.Crew QA should be notified on T&A report of scheduled meeting time in order to advise whether they wish to attend the meeting, in person or by phone.

Pilot Run

1. A pilot run is not mandatory for all orders and a decision regarding this requirement should be made prior to the PP meeting between J.Crew QA and the SBTM/BTM.
2. When a pilot run is required, results must be verified and documented by the SBTM/BTM prior to proceeding to bulk production.

Top of Production Sample

1. A TOP (Top of Production) sample must be sent to J.Crew New York HQ within five working days of production commencing.
2. SBTM/BTM is responsible for ensuring TOP sample is manufactured in production line and meets all J.Crew quality standards.
3. J.Crew New York HQ will review and confirm when TOP is unacceptable or not within five working days of receipt.
4. TOP sample approval from J.Crew New York HQ is not required prior to shipment release unless specifically communicated for that style.

Factory Certified Auditor (FCA Program)

1. J.Crew has developed a Factory Certified Auditors (FCA) program to enable all direct vendors to meet the required quality audit standards.
2. The FCA training is provided by the vendor SBTM/BTM on-site.
3. SBTM/BTM should identify and train two or more auditors to ensure adequate coverage is available at all times.

4. Training period is a minimum of 3 months.
5. During this period FCA trainees will be required to perform shipment audits prior to 3rd Party shipment audits to ensure correlation of results.
6. After FCA certification 3rd party audits will be reduced to 10% of deliveries as a monitoring process.
7. All 3rd party audits are paid for by the vendor.
8. FCA certification is non-transferrable and may be revoked at the discretion of J.Crew if auditor performance does not meet J.Crew standards. In such a case, re-training must occur to ensure continued business.
9. An FCA may perform audits in multiple locations (i.e.; the accreditation is NOT location specific.)

In Line Auditing

1. In line audits must be reviewed by the SBTM/BTM.
2. All vendors must document an in-line quality audit on a daily basis for each stage of production.
3. In line audits must identify and document:
    - Defects
    - Solutions
    - Verification of Solution

Shipment Audit

1. All vendors must perform a shipment audit prior to requesting 3rd Party Audit. Multiple production order (PO) of a similar style may be audited as a single batch.
2. Shipment audit must be performed by the vendor BTM or FCA candidate(s).
3. Shipment audit should follow the J.Crew audit process as per the Vendor Manual.

Third Party Audit

1. Direct vendors are required to engage an authorized 3rd Party Auditor to perform a duplicate shipment audit during FCA probationary period.
2. Vendor is responsible for both scheduling and payment of these audits.
3. Copies of internal and 3rd Party Shipment Audits must be sent to J.Crew QA following shipment release by 3rd Party.
4. If shipment is rejected by 3rd Party the Vendor must contact J.Crew immediately to agree on next steps, including re-audit by 3rd party.

Senior Brand Technical Manager (SBTM)

Introduction

All vendors engaged in a direct relationship with J.Crew sourcing are required to nominate one employee within their organization to act as the J.Crew SBTM, this position is critical to the success of our sourcing partnership, providing.

- A single point of contact for communication between J.Crew technical services and the vendor.
- The creation of a technical and quality subject matter expert within the vendor organization.
- A means of sharing best practices within the J.Crew vendor base through attendance at SBTM training sessions.
- Sustainability to the BTM, DTM and FCA program caused by staff turnover.

The SBTM assists J.Crew Corporate Quality Assurance (QA) department in the execution of the company's quality and compliance policies, procedures and strategic plans. The role of the SBTM is to compliment and strengthen the management controls, it is NOT intended to be the only responsibility of an employee, nor should their activities replace the vendor's existing quality and technical management processes. As it requires technical expertise, the role must be filled by an individual with adequate knowledge of both management and technical services.

Roles and Responsibilities of Senior Brand Technical Manager (SBTM)

- Drive continuous quality improvement plan
- Factory evaluations
- Sample room evaluations
- Production quality SOP training
- Development SOP training
- Implementation of DQS program
- Implementation of QMS/FCA program
- Product safety and risk assessment for sample and production
- Restricted substances compliance of sample and production
- Schedule of sample quality activities
- Schedule of production quality activities
- Monitor sample quality and sample construction specification
- Development stage - Investigative activities into quality failures to make improvements

- Production stage - Investigative activities into quality failures to make improvements
- Review test result
- PP sample approval
- PP meeting
- TOP sample inspection (at factory level)
- Production inspection - QUONDA system
- QA file checking
- Monitor WIP
- Third party inspection

Primary Documentary Controls – including but not limited to

- Factory Evaluation Report
- Sample Room Evaluation Report
- Sample making specification
- Quality Failure Report
- Quality Scorecard
- Product Inspection Reports
- QA Training Manual
- WIP/T&A tracking tools
- FCA Training Manual and Register
- Testing protocols
- Restricted substance list
- Test reports
- Certificate of Compliances
- Critical Failure Procedure

Qualifications & Skills

- Degree or equivalency in textile or apparel related subject.
- Fifteen years of work experience in apparel manufacturing and/or apparel quality assurance.
- Ten years of quality management experience.
- Knowledge of DQS and FCA implementation, Quality Management SOPs, root-cause analysis techniques, third party service provider management.
- Experience in woven, CS knits or sweater manufacturing.
- Practical understanding of key elements differentiating better apparel brand quality, including TQM / Right First Time management approach.
- Experience and knowledge of lab testing and restricted substances compliance.
- Knowledge of baby's and Children's product safety, as necessary.
- Certified by J.Crew QA team after examination.

Training Program of Senior Brand Technical Manager (SBTM)

All SBTMs require certification from J.Crew following successful completion of the J.Crew BTM training program.

The program will include training and skills assessment in the following:

- Sample Room Evaluation and Factory Evaluation
- Quality Management Administration
- Sample room management
- Pre-Production Sample approval
- Pre-Production Meeting management
- Standard Operating Procedures management.
- Pilot Run Set Up
- In Line Auditing
- Operation Traffic Light System
- Shipment Audit
- DTM, BTM, FCA Training
- Monitoring J.Crew testing and compliance program

Development Technical Manager (DTM)

Introduction

All vendors engaged in a direct relationship with J.Crew sourcing are required to nominate one employee within their organization to act as the J.Crew DTM, this position is critical to the success of our sourcing partnership, providing.

- Communicate with J.Crew technical design.
- Assist to SBTM for the creation of a technical and quality subject matter expert within the vendor organization.
- A means of sharing best practices within the J.Crew vendor base through attendance at DQS training sessions.
- Sustainability to the DQS and Sample room organization caused by staff turnover.

The DTM assists SBTM in the execution of the company's quality and compliance policies, procedures and strategic plans. The role of the DTM is to compliment and strengthen the management controls in the sample room, it is NOT intended to be the only responsibility of an employee, nor should their activities replace the vendor's existing quality and technical management processes. As it requires technical expertise, the role must be filled by an individual with adequate knowledge of both management and technical services.

Roles and Responsibilities of Development Technical Manager

- Drive continuous quality improvement plan
- Sample room evaluations
- Development SOP training
- Implementation of DQS program
- Product safety and risk assessment for sample and production
- Restricted substances compliance of sample and production
- Schedule of sample quality activities
- Monitor sample quality and sample construction specification
- Development stage - Investigative activities into quality failures to make improvements
- Review test result

Primary Documentary Controls – including but not limited to

- Sample Room management
- Testing protocols
- Sample construction specifications

- Qualifications & Skills
- Fifteen years of work experience in related product category's manufacturing and/or sample development management.
- Knowledge of Baby and Children's product safety
- Practical understanding of key elements differentiation better related product's brand quality including DQS/Right First Time management approach.
- Certified by J.Crew QA team after examination.

Training Program of Development Technical Manager

All DTMs require certification from J.Crew following successful completion of the J.Crew DTM training program.

The program will include training and skills assessment in the following:

- Product Safety Evaluation
- Quality Management Administration
- Sample room SOP management
- Development and Fit Sample management
- Sample room worker training
- Monitoring J.Crew testing and compliance program

Brand Technical Manager (BTM)

Introduction

All vendors engaged in a direct relationship with J.Crew sourcing are required to nominate one employee within their organization to act as the J.Crew Brand Technical Manager (BTM.) This position is critical to the success of our sourcing partnership, providing:

- Assist to SBTM of contact for communication between J.Crew technical services and the vendor.
- Assist to SBTM for the creation of a technical and quality subject matter expert within the vendor organization.
- A means of sharing best practices within the J.Crew vendor base through attendance at BTM training sessions.
- Sustainability to the factory certified auditor program caused by staff turnover.

The BTM assists J.Crew Corporate Quality Assurance (QA) department in the execution of the company's quality and compliance policies, procedures and strategic plans. The role of the BTM is to compliment and strengthen the management controls, it is NOT intended to be the only responsibility of an employee, nor should their activities replace the vendor's existing quality and technical management processes. As it requires technical expertise, the role must be filled by an individual with adequate knowledge of both management and technical services.

Roles and Responsibilities of Brand Technical Manager

- Drive continuous quality improvement plan
- Factory evaluations
- Production quality SOP training
- Implementation of QMS/FCA program
- Product safety and risk assessment for sample and production
- Restricted substances compliance of sample and production
- Schedule of production quality activities
- Production stage -Investigative activities into quality failures to make improvements
- Review test result
- PP sample approval
- PP meeting
- TOP sample inspection (at factory level)
- Production inspection - QUONDA system
- QA file checking

- Monitor WIP
- Third party inspection

Primary Documentary Controls – including but not limited to

- Factory Evaluation Report
- Quality Failure Report
- Quality Scorecard
- Product Inspection Reports
- QA Training Manual
- WIP/T&A tracking tools.
- FCA Training Manual and Register
- Testing protocols
- Restricted substance list
- Test reports
- Certificate of Compliances
- Critical Failure Procedure

Qualifications & Skills

- Degree or equivalency in textile or apparel related subject.
- Ten years of work experience in apparel manufacturing and/or apparel quality assurance.
- Ten years of quality management experience.
- Knowledge of FCA implementation, Quality Management SOPs, root-cause analysis techniques, third party service provider management.
- Experience in woven, CS knits or sweater manufacturing.
- Practical understanding of key elements differentiating better apparel brand quality, including TQM/Right First Time management approach.
- Experience and knowledge of lab testing and restricted substances compliance.
- Knowledge of Children's product safety, as necessary.
- Certified by J.Crew QA team after examination.

Training Program of Brand Technical Manager

All BTMs require certification from J.Crew following successful completion of the J.Crew BTM training program.

The program will include training and skills assessment in the following:

- Factory Evaluation
- Quality Management Administration
- Pre-Production Sample approval
- Pre-Production Meeting management
- Standard Operating Procedures management.
- Pilot Run Set Up
- In Line Auditing.
- Operation Traffic Light System
- Shipment Audit
- Factory Certified Auditor Training
- Monitoring J.Crew testing and compliance program

Roles and Responsibilities of SBTM, DTM, BTM and FCA

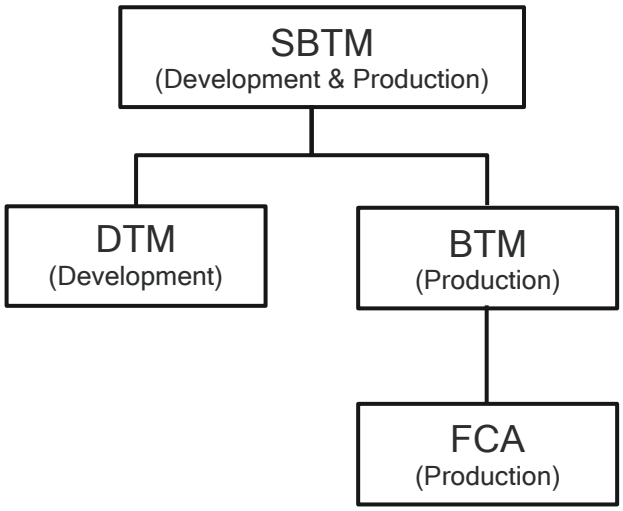
Roles and Responsibilities	SBTM	DTM	BTM	FCA
Drive continuous quality improvement plan	R. A	A	A	I
Factory evaluations	R. A	C	A	
Sample room evaluations	R. A	A	C	
Production quality SOP training	R. A		A	
Development SOP training	R. A	A		
Implementation of DQS program	R. A	A		
Implementation of QMS/FCA program	R. A		A	I
Product safety and risk assessment for sample and production	R. A	A	A	A
Restricted substances compliance of sample and production	R. A	A	A	A
Schedule of sample quality activities	R. A	A		
Schedule of production quality activities	R. A		A	I
Monitor sample quality and sample construction specification	R. A	A		
Development stage - Investigative activities into quality failures to make improvements	R. A	A		
Production stage - Investigative activities into quality failures to make improvements	R. A		A	I
Review test result	R. A	A	A	I
PP sample approval	R. A	C	A	I
PP meeting	R. A	C	A	I
TOP sample inspection (at factory level)	R. A		A	A
Production inspection - QUONDA system	R. A		A	A
QA file checking	R. A		A	A
Monitor WIP	R. A		A	A
Third party inspection	R. A		A	I

RACI base on SBTM applicable in vendor quality system.

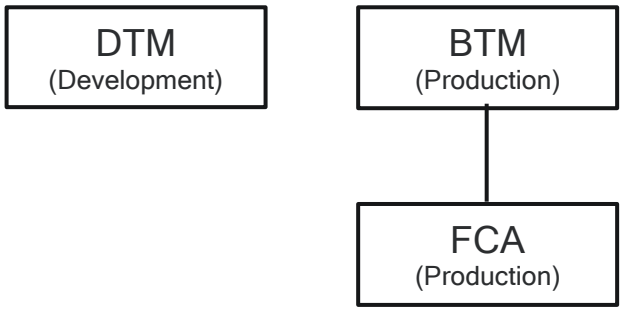
If SBTM is not in the organization, DTM is responsible for sample development and BTM is responsible for production.

Responsible = person or role responsible for ensuring that the item is completed
Accountable = person or role responsible for actually doing or completing the item
Consulted = person or role whose subject matter expertise is required in order to complete the item
Informed = person or role that needs to be kept informed of the status of item completion

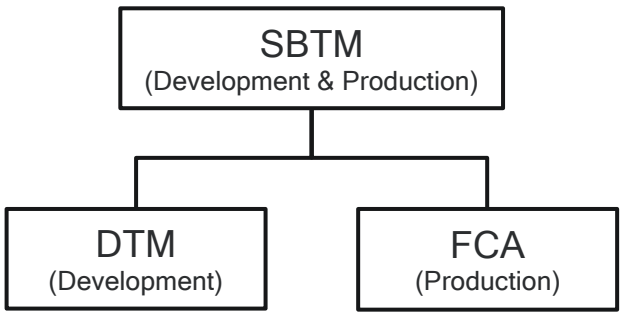
Scenario A: vendor has SBTM, DTM, BTM and FCA.



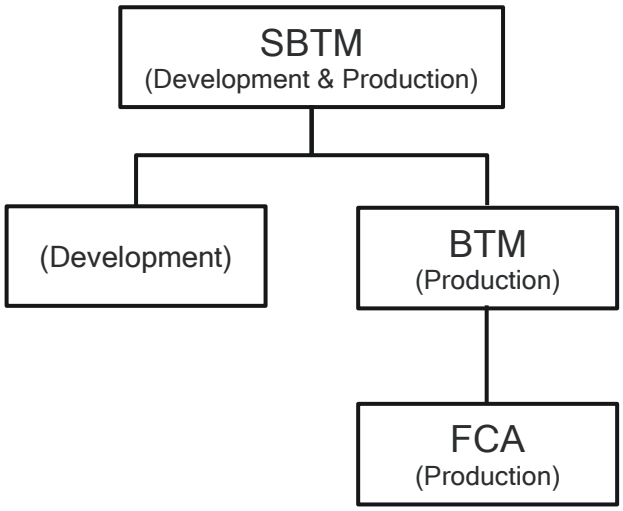
Scenario B: vendor has DTM, BTM and FCA (no SBTM)



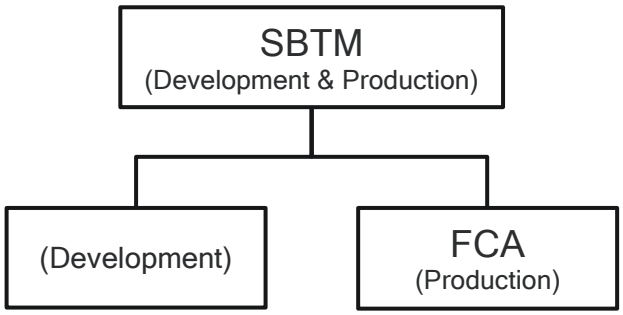
Scenario C: vendor has SBTM, DTM and FCA (no BTM)



Scenario D: vendor has SBTM, BTM and FCA (no DTM)



Scenario E: vendor has SBTM and FCA (no DTM and BTM)



Supplier Evaluation to Children's Product Safety

Introduction

J.Crew has a separate supplier evaluation requirement related to children's product safety. This requirement applies to Crewcuts (children's products.) This may be found in the download section of J.Crew Imports. J.Crew also has chemical safety requirements which apply to adult and children's product alike (see section 11 in Vendor Direct Technical Service Guide.)

Facility Evaluation

1. All vendors intending to produce Crewcuts product must be evaluated for product safety as per the J.Crew safety evaluation process.
2. This evaluation will be performed simultaneously to the quality evaluation if the facility is intended to produce crewcuts from the beginning.
3. If an existing vendor's facility that is already producing for J.Crew wishes to also supply to Crewcuts then a safety evaluation is mandatory.
4. J.Crew QA will perform this evaluation and will advise results to both vendor and J.Crew HQ.

Mechanical Safety

1. Product design must meet or exceed J.Crew standards as per Children's Safety Manual and comply with international regulations.
2. All Crewcuts suppliers must have internal capabilities to evaluate mechanical safety of products throughout production process.
3. Internal batch testing must be performed and recorded as part of the inline inspection process.
4. Vendor SBTM/BTM must review all inline safety testing.
5. Pre-testing is recommended as it may be required to ensure that design structure of the product can be executed to the new safety requirements

Manufacturing Quality Evaluation (Woven and Knit)

Objective

The objective of this evaluation is to assess if there is capability to consistently produce to the J.Crew quality standard. The evaluation should identify whether the capability exists, does not exist OR is compromised between the planning and execution stages. The review therefore becomes both a tool to assess existing capabilities as well as a blueprint for any improvement program. Agents must perform this annually and follow up on improvement activities on a quarterly basis.

The evaluation must include:

- A rating of the observed quality level of the facility. This rating should be based on an assessment of personnel, processes and products.
- Identifying the existing and potential quality problems.
- Creating improvement plans to address quality problems.
- Monitoring and updating the implementation of the improvement plans.

Tools

Prior to performing a manufacturing quality evaluation, the assessor must have on hand the following.

1. Work in Process documentation.
2. Production Technical Files.
3. Pre-Production Samples.
4. Pre-Production patterns.
5. Manufacturing internal inspection records.
6. 32 units of internal shipment audit (with 100% measurement record).

Process:

The evaluation process consists of five stages.

A) Documentary review.

WIP should be evaluated and the production status of pre-selected styles clarified. Review of the Production Technical Files should be conducted for completeness. Verification of the availability of the approved PP Sample and customer Standards/Manual to the appropriate personnel.

B) Facility walk through.

This walk through must follow the same sequence as the product, step by step for *all* steps. If several stations or lines are performing the same step review multiple stations to

assess consistency. The assessor should obtain information both by observation and by enquiring of management and operators alike.

- Observe. What is being done. Who is doing it. How are they doing it. Where are the standards and work instructions.
- Ask. Why are tasks being performed. Who trains the personnel. How did they train them. Who monitors performance. Where are the records.
- Consider. Does it all make sense.

The evaluation should include (but is not limited to):

- *Fabric and trims control:*

  Is there an inspection, are there records, is the area bright, clean & tidy with correct storage.

- *Marker Making:*

  Who makes the marker, does it have the correct shrinkage applied.

- *Fabric relaxation:*

  Is it stored correctly, for the correct time, are there records, who issues relaxed fabric to the cutters.

- *Spreading:*

  Is the fabric being spread correctly, what instructions exist, what ply size etc, is it relaxed adequately.

- *Cutting:*

  Are the pieces cut accurately, with good technique. Is the area safe. Who checks the cutting. Where are the records. What are the standards (Do the customers standards exist in their manual) . Verification of the top middle and bottom ply against the pattern.

- *Numbering:*

  Are all pieces numbered? Are numbers being placed in a sensible position. Is there an instruction standardizing this?

- *Fusing:*

  Are the instructions for what to fuse and where available. Is the interlining from an approved supplier? Are the settings for the time, pressure heat available. Where are the inspection records. Are pieces being presented correctly to the machine. Are pieces block fused? Check the after fusing shrinkage if not.

- *Sewing:*

  How much has been trimmed off at overlock? Check the waste. Is it the same with all overlockers. Are curves being stretched at overlock. How is the tension setting of the machines. Check bobbins, review lining sewing. How does the room sound, do the machines run continuously or erratically. Are the machines clean, ask what is the

clean down procedure. What is the procedure for white garments, are they segregated etc. Check the SPI in different lines. Are there scissors on machines ? (The operators should only assemble, if they are cutting then it means there is a pattern or cutting problem). Do the machines have lamps or is the light ok. How is the seaming, is it consistent enough to meet spec. Are operators using seam guides, templates chalk marks for accuracy. Who is inspecting the product in line , where are the records, what is the daily rework rate, (ask the production manager & the supervisor). Is there pucker, easing, stretching from poor handling. Is inline press being used in the correct operations, Is pressing equipment well maintained. Is pressing being used to "hide" sewing defects?

- *Pressing:*

  Is there a standard in the area. Are pressing tables clean and dry. Is steam hot, how often are the steam lines cleaned out. Are pressers correcting defects or improving appearance.

- *Product safety, it's compulsory for Children product.*

  Is there Product safety guide (SOP) has been set up in site? Metal detector is functional properly and the sensitivity ability archives 1.0mm ferrous? 9-points calibrates regularly before inspecting the product?

  Any internal pull test (20 lbs 10 seconds) process has been set up and implementing for small part including functional and decorative components (shank, button, snap, zipper puller, etc..)? Is the record well kept?

  Is there metal free zone packing and isolated defective area?

- *Mold prevention*

  Is there guide to prevent the mold in production? any guideline, standard and equipment to monitor the environment including isolating production from mold spore, the temperature and humidity in production flow are set properly, dehumidified room has been set up and check the moisture before packing for every shipment.

- *Packing:*

  Is there 100% inspection by Inspectors (not trimmers) before packing. Where the records of defect rates. Who trains the inspectors, do they have the standards. Are the packers given visual instructions on folding methods etc. Are random audits performed on packed goods by the factory QC. Where are the reports.

C) Finished Product Inspection.

Review the 32 piece audit already prepared. Product must include evaluation on the mannequin with a comparison against the PP sample. Measure randomly to verify the measurement audit findings. Evaluate the product quality standards and verify against the internal audit record. At this stage it is critical to engage the facility management in the assessment of their own product. Participative exercises including numerical rating by the group of the product, identification of defects/non-compliance issues along with root cause analysis that relate to the system concerns identified during the walk through stage are required at this point to facilitate the final stage.

D) Rating and Improvement Plan:

Findings must be discussed with manufacturing management, both positive and negative aspects. It is critical at this stage to be aware that any improvement plan will *only* be successfully executed if the manufacturers management drives this activity. Conclusions regarding systems, equipment and individual capabilities may or may not be included in this discussion, (It should be understood that certain conclusions require additional investigations.)

Once agreement on current status has been reached it is a relatively simple step to then discuss and agree the future objectives. The assessor should guide this discussion. It is important to understand the need to pace oneself when embarking on improvement projects. It is also important to recognize the effectiveness of breaking down tasks into manageable chunks from a time perspective. Once objectives have been identified the method by which to achieve these must be agreed upon. This may or may not be detailed, however the nature of the activity, the person given this task to complete and the time frame for completion must be agreed and documented. This now becomes the blueprint for improvement.

Manufacturing Quality Evaluation (Sweater)

Objective

The objective of this evaluation is to assess if there is capability to consistently produce to the J.Crew quality standard. The evaluation should identify whether the capability exists, does not exist OR is compromised between the planning and execution stages. The review therefore becomes both a tool to assess existing capabilities *as well as* a blueprint for any improvement program. Agents must perform this annually and follow up on improvement activities on a quarterly basis.

The evaluation must include:

- A rating of the observed quality level of the facility. This rating should be based on an assessment of personnel, processes and products.
- Identifying the existing and potential quality problems.
- Creating improvement plans to address quality problems.
- Monitoring and updating the implementation of the improvement plans.

Tools

Prior to performing a manufacturing quality evaluation the assessor must have on hand the following.

1. Work in Process documentation.
2. Production Technical Files. (Risk assessment doc, garment weight, handle standard)
3. Pre-Production Samples.
4. Pre-Production knitting specification (Garment weight, handle standard)
5. Manufacturing internal inspection records.
6. 32 units of internal shipment audit (with 100% measurement record).

Process:

The evaluation process consists of five stages.

A) Documentary review.

WIP should be evaluated and the production status of pre-selected styles clarified. Review of the Production Technical Files should be conducted for completeness. Verification of the availability of the approved PP Sample and customer Standards/Manual to the appropriate personnel.

B) Facility walk through.

This walk through must follow the same sequence as the product, step by step for *all* steps. If several stations or lines are performing the same step review multiple stations to

assess consistency. The assessor should obtain information both by observation and by enquiring of management and operators alike.

- Observe. What is being done. Who is doing it. How are they doing it. Where are the standards and work instructions.
- Ask. Why are tasks being performed. Who trains the personnel. How did they train them.
  Who monitors performance. Where are the records.
- Consider. Does it all make sense.

The evaluation should include (but is not limited to):

- *Yarn and trims control:*

  Is there an inspection against the order specification (fabric spec/yarn spec), Is the area bright, clean & tidy with correct storage.

- *Knitting specification:*

  Who makes the knitting specification, is it same as the approved PP sample.

- *Knitting:*

  Knitting machine to worker ratio according to gauge, style and yarn is the ratio making sense according to the skill of the worker, machine types. Is there any dye lot control, foreign fiber contamination control, tension inspection, metal control.

- *Panel inspection:*

  Is it 100% inspection. Is there light table and acrylic iron for panel inspection. Is the panel inspection piece by piece or half fold. Any action plan against finding.

- *Linking:*

  Is there any linking specification – use self-yarn, PP thread. Seam elongation standard. Linking inspection: Is it 100% inspection. Is there any seam elongation being checked. Is there action plan against finding.

- *Hand stitching and Hand stitching inspection:*

  Are action plan against finding.

- *Light tube inspection before washing:*

  Is the whole sweater being light tube inspected (inspection worker should turn the sweater to ensure the whole sweater can be inspected by the light tube) Any action plan against finding. Do all styles have light tube inspection before washing.

- *Mending:*

  Is there inspection after mending. Does the mended panel go back to the same dye lot bundle.

- *Washing:*

  Is the well maintain handle standard in washing section. Is there any washing recipe by style by colour. Is the washing machine and the tumbling machine being cleaned before processing another colour.

- *Light tube inspection after washing:*

  Do all styles have light tube inspection after washing. Is there any way the line supervisor being notified in case that the defect rate is abnormal. Is any root cause analysis to expected high defects.

- *Pressing:*

  Is the pressing bed condition good. Is there any sharp edge on the wooden garment molding broads. Any mold prevention in the section.

- *Measurement check:*

  Is it 100% being measured.

- *Mending:*

  Is the mended garment being inspected again.

- *Inspection after mending:*

  Does the supervisor have routine review and is alerted for the abnormal production defects. Is any root cause analysis to expected high defects.

- *Buttoning:*

  Is there any routine pull test in the production line and records (Crewcut – required every 2 hours pull test for every single buttoning machine)

- *Label sewing:*

  How it the label distribution process to sewing worker.

- *Final inspection:*

  Does the supervisor have routine review and is alerted for the abnormal production defects for action plan.

- *Product safety, it's compulsory for Children product.*

  Is there Product safety guide (SOP) has been set up in site? Metal detector is functional properly and the sensitivity ability archives 1.0mm ferrous? 9-points calibrates regularly before inspecting the product?

  Any internal pull test (20 lbs 10 seconds) process has been set up and implementing for small part including functional and decorative components (shank, button, snap, zipper puller, etc..)? Is the record well kept?

  Is there metal free zone packing and isolated defective area?

- *Mold prevention*

  Is there guide to prevent the mold in production? any guideline, standard and equipment to monitor the environment including isolating production from mold

spore, the temperature and humidity in production flow are set properly, dehumidified room has been set up and check the moisture before packing for every shipment.

- *Packaging section:*

  Sufficient airing before packaging. How to ensure sufficient airing time. How is the tag distribution process to packaging worker.

C) Finished Product Inspection.

Review the 32 piece audit already prepared. Product must include evaluation on the mannequin with a comparison against the PP sample. Measure randomly to verify the measurement audit findings. Evaluate the product quality standards including the handfeel cross check with handle standard and verify against the internal audit record. At this stage it is critical to engage the facility management in the assessment of their own product. Participative exercises including numerical rating by the group of the product, identification of defects/non-compliance issues along with root cause analysis that relate to the system concerns identified during the walk through stage are required at this point to facilitate the final stage.

D) Rating and Improvement Plan:

Findings must be discussed with manufacturing management, both positive and negative aspects. It is critical at this stage to be aware that any improvement plan will *only* be successfully executed if the manufacturers management drives this activity. Conclusions regarding systems, equipment and individual capabilities may or may not be included in this discussion, (It should be understood that certain conclusions require additional investigations.)
Once agreement on current status has been reached it is a relatively simple step to then discuss and agree the future objectives. The assessor should guide this discussion. It is important to understand the need to pace oneself when embarking on improvement projects. It is also important to recognize the effectiveness of breaking down tasks into manageable chunks from a time perspective. Once objectives have been identified the method by which to achieve these must be agreed upon. This may or may not be detailed, however the nature of the activity, the person given this task to complete and the time frame for completion must be agreed and documented. This now becomes the blueprint for improvement.

Manufacturing Quality Evaluation (Non-Apparel)

Objective

The objective of this evaluation is to assess if there is capability to consistently produce to the J.Crew quality standard. The evaluation should identify whether the capability exists, does not exist OR is compromised between the planning and execution stages. The review therefore becomes both a tool to assess existing capabilities *as well as* a blueprint for any improvement program. Agents must perform this annually and follow up on improvement activities on a quarterly basis.

The evaluation must include:

- A rating of the observed quality level of the facility. This rating should be based on an assessment of personnel, processes and products.
- Identifying the existing and potential quality problems.
- Creating improvement plans to address quality problems.
- Monitoring and updating the implementation of the improvement plans.

Tools

Prior to performing a manufacturing quality evaluation, the assessor must have on hand the following.

1. Work in Process documentation.
2. Production Technical Files.
3. Pre-Production Samples.
4. Pre-Production patterns.
5. Manufacturing internal inspection records.
6. 32 units of internal shipment audit (with 100% measurement record if needed).

Process:

The evaluation process consists of five stages.

A) Documentary review.

WIP should be evaluated and the production status of pre-selected styles clarified. Review of the Production Technical Files should be conducted for completeness. Verification of the availability of the approved PP Sample and customer Standards/Manual to the appropriate personnel.

B) Facility walk through.

This walk through must follow the same sequence as the product, step by step for *all* steps. If several stations or lines are performing the same step review multiple stations to assess consistency. The assessor should obtain information both by observation and by enquiring of management and operators alike.

- Observe. What is being done. Who is doing it. How are they doing it. Where are the standards and work instructions.
- Ask. Why are tasks being performed. Who trains the personnel. How did they train them. Who monitors performance. Where are the records.
- Consider. Does it all make sense.

The evaluation should include (but is not limited to) :

- *Raw Materials control:*

  Is there an inspection, are there records, is the area bright, clean & tidy with correct storage.

- *Leather storage:*

  Proper facility with temperature and humidity control, record and the log must be available.

- *Materials relaxation:*

  Is it stored correctly, for the correct time, are there records, who issues relaxed fabric to the cutters.

- *Spreading:*

  Is the materials being spread correctly, what instructions exist, what ply size etc, is it relaxed adequately.

- *Cutting:*

  Are the pieces cut accurately, with good technique. Is the area safe. Who checks the cutting. Where are the records. What are the standards (Do the customers standards exist in their manual) . Verification of the top middle and bottom ply against the pattern.

- *Numbering:*

  Are all pieces numbered? Are numbers being placed in a sensible position. Is there an instruction standardizing this?

- *Edge painting*
  Are there edge painting machines available? Are all edge paint color properly labeled stored and traceable? Is the painting area clean and dust free? Is oil based edge paint applied and polished in several stages? Are all workers wearing proper face masks? Is there a covered and well ventilated space to hang the painted cutting pieces? Is there a drying machine available?

- *Fusing / lamination:*

  Are the instructions for what to fuse / laminate and where available. Is the interlining from an approved supplier? Are the settings for the time, pressure heat available. Where are the inspection records. Are pieces being presented correctly to the machine. Are pieces block fused ? Check the after fusing / lamination shrinkage if not.

- *Sewing and assembling*

  General housekeeping and organization is of a high standard.

  Appropriate standards (PP sample, trim card, Operation Breakdown etc) are available in sewing area.

  Individual operations are set up and signed off by mechanic and technician.

  Machine maintenance is planned and tracked appropriately and is effective.

  Individual operator techniques are correct and appropriate.

  Work aids guides, templates and attachments are used appropriately.

  Individual workstations are well maintained and illuminated.

  Effective in line quality controls are evident at critical operations (SPC/Traffic Light etc)

  Non-Conformances are remedied and root cause addressed in a timely fashion.

  Transport system is appropriate and adequate to maintain quality and production flow.

  End of line quality performance is collected and analyzed both on short- and long-term basis.

  Factory management have a defined and clearly understood long term quality strategy.

  Needle policy is implemented and monitored.

  Line outputs are reviewed on mannequins daily as part of the continuous quality assessments.

  Is production machinery operated under a maintenance schedule?

- *Pressing:*

  Is there a standard in the area. Are pressing tables clean and dry. Are pressers correcting defects or improving appearance.

- *Product safety, it's compulsory for Children product.*

  Is there Product safety guide (SOP) has been set up in site? Metal detector is functional properly and the sensitivity ability archives 1.0mm ferrous? 9-points calibrates regularly before inspecting the product?

  Any internal pull test (20 lbs 10 seconds) process has been set up and implementing for small part including functional and decorative components (shank, button, snap, zipper puller, etc..)? Is the record well kept?

  Is there metal free zone packing and isolated defective area?

- *Mold prevention*

  Is there guide to prevent the mold in production? any guideline, standard and equipment to monitor the environment including isolating production from mold spore, the temperature and humidity in production flow are set properly, dehumidified room has been set up and check the moisture before packing for every shipment.

- *Packing:*

  Is there 100% inspection by Inspectors (not trimmers) before packing. Where the records of defect rates. Who trains the inspectors, do they have the standards? Are the packers given visual instructions on packing methods etc. Are random audits performed on packed goods by the factory QC. Where are the reports.

- *Inspection and testing*

  Laboratory test reports have been reviewed prior to final inspection.

  In house testing has been documented and is reviewed at final inspection

  Inspection areas are clean, organized and illuminated.

  Audits are conducted for quality workmanship and packing methods

  Factory inspection method is standardized and meets or exceeds customer requirements

  Daily, weekly and monthly data is reviewed as a KPI by factory management.

  Management quality strategies drive process capability to meet customer requirements. (RFT)

C) Finished Product Inspection.

Review the 32-piece audit already prepared. Product must include evaluation against the PP sample. Measure randomly to verify the measurement audit findings. Evaluate the product quality standards and verify against the internal audit record. At this stage it is critical to engage the facility management in the assessment of their own product. Participative exercises including numerical rating by the group of the product, identification of defects/non-compliance issues along with root cause analysis that relate to the system concerns identified during the walk-through stage are required at this point to facilitate the final stage.

D) Rating and Improvement Plan:

Findings must be discussed with manufacturing management, both positive and negative aspects. It is critical at this stage to be aware that any improvement plan will *only* be successfully executed if the manufacturers management drives this activity. Conclusions regarding systems, equipment and individual capabilities may or may not be included in this discussion, (It should be understood that certain conclusions require additional investigations.)

Once agreement on current status has been reached it is a relatively simple step to then discuss and agree the future objectives. The assessor should guide this discussion. It is important to understand the need to pace oneself when embarking on improvement projects. It is also important to recognize the effectiveness of breaking down tasks into manageable chunks from a time perspective. Once objectives have been identified the method by which to achieve these must be agreed upon. This may or may not be detailed, however the nature of the activity, the person given this task to complete and the time frame for completion must be agreed and documented. This now becomes the blueprint for improvement.

Pre-Production Sample (Woven and Knit)

Objective

Prior to beginning production all vendors must submit a Pre-Production sample made to the correct quality standards for approval by the J.Crew representative. Production may not commence without PP sample approval.
The PP sample should be considered the *contract for quality*.

Package

Each vendor should submit a PP sample package to J.Crew QA agent consisting of:

2 duplicate samples, in base size made using bulk fabric and trims.

1 Trim card.

1 Net pattern

Inspection report.

Pre-Production Sample Review Steps :

1. Technical package review of all details with particular emphasis on :
    a. Fit comments:
    b. Measurement specification.
    c. Construction.
    d. Materials.
2. Pattern evaluation for the following aspects:
    a. Fit comments adjustments.
    b. General Drafting.
    c. Pattern alignment.
    d. Alteration history.
3. Fit Calibration.
    a. Approved fit sample should be reviewed on the mannequin to calibrate the auditors eye prior to assessing the PP samples. Impact of any fit comments should be understood during this calibration exercise.
4. Mannequin review.
    a. Appearance. An initial overall assessment of the pp sample should be made on the mannequin.
    b. Fit correlation. Where the fit sample was previously reviewed a correlation of fit a pp sample should be made.

c. Symmetry. Identify the existence of any asymmetrical aspects of the pp sample.

d. Manufacturing defects. It is important to recognize defects on the mannequin both the nature and the severity of them, particularly in relation to the same defect on a garment when it is flat.

e. Product finesse. The ability to discern the level of finesse in a garment is of particular importance particularly in regard to a "better" product. Defects (holes, pucker, broken stitches etc) are relatively obvious indicators of a sub standard product. Less obvious are the neatness of stitches, roll of a collar, drape of a hem line etc. An experienced auditor assessing quality must be able to recognize and articulate any quality concerns regarding product finesse of a garment in wear.

5. Quality review.

   a. Visual assessment. Measurable defects should be observed including those specific defects identified in the manual and the level of finesse of a garment.

   b. Internal construction. Sample should be constructed as per the tech pack, manual and fit sample. Where ambiguity exists, the assessor must obtain clarification from J.Crew.

   c. Measurement: The sample should be measured, following the approved measurement method against the documented measurement chart.

6. Documentation.

   a. The auditor should record results of reviews of Pattern, Measurements, Materials, Construction, Fit comments, Quality observations, Appearance, Compliance with existing standards (wash, color, trim card etc) .

7. Conclusion.

   a. **Approved**. Proceed to cut bulk: In this situation both measurement and appearance are of a satisfactory standard.

   b. **Rejected**. Do not proceed to cut bulk: In this situation either measurement and/or appearance is unacceptable.

   c. Guideline. If *all* the future production garments are identical to the PP sample will each garment meet J.Crew quality expectations?
   Yes = Approved
   No = Rejected.

Pre-Production Sample (Sweater)

Objective

Prior to beginning production all vendors must submit a Pre-Production sample made to the correct quality standards for approval by the J.Crew representative. Production may not commence without PP sample approval.
The PP sample should be considered the *contract for quality*.

Package

Each vendor should submit a PP sample package to J.Crew QA agent consisting of:

2 duplicate samples, in base size made using bulk yarn and trims.

With info of composition, yarn count, handle standard, garment weight, full history of the tech pack with all the comment.

Pre-Production Sample Review Steps :

1. Technical package review of all details with particular emphasis on:
    a. Fit comments:
    b. Measurement specification
    c. Construction
    d. Yarn count
    e. Garment weight
    f. Handle
    g. Previous fit sample/reference sample
2. Fit Calibration.
    a. Approved fit sample should be reviewed on the mannequin to calibrate the auditors' eye prior to assessing the PP samples. Impact of any fit comments should be understood during this calibration exercise.
3. Mannequin review.
    a. Appearance. An initial overall assessment of the pp sample should be made on the mannequin.
    b. Fit correlation. Where the fit sample was previously reviewed a correlation of fit a pp sample should be made.
    c. Symmetry. Identify the existence of any asymmetrical aspects of the pp sample.

d. Manufacturing defects. It is important to recognize defects on the mannequin both the nature and the severity of them, particularly in relation to the same defect on a garment when it is flat.

e. Product finesse. The ability to discern the level of finesse in a garment is of particular importance particularly in regard to a "better" product. Defects (holes, laddering, snubs, broken seam etc) are relatively obvious indicators of a substandard product. Less obvious are the poor, untrimmed yarn end etc. An experienced auditor assessing quality must be able to recognize and articulate any quality concerns regarding product finesse of a garment in wear.

4. Quality review.

   a. Visual assessment. Measurable defects should be observed including those specific defects identified in the manual and the level of finesse of a garment.

   b. Internal construction. Sample should be constructed as per the tech pack, manual and fit sample. Where ambiguity exists the assessor must obtain clarification from J.Crew.

   c. Measurement: The sample should be measured, Sweater should be weighted and handle checked, following the approved measurement method against the documented measurement chart.

5. Documentation.

   a. The auditor should record results of reviews of Knitting specification, Measurements, Yarn count & composition, Fit comments, Quality observations, Appearance, Handle, Compliance with existing standards (wash, color, trim card etc).

6. Conclusion.

   a. **Approved**. Proceed to cut bulk: In this situation both measurement and appearance are of a satisfactory standard.

   b. **Rejected**. Do not proceed to knit: In this situation either measurement, handle, tension, yarn/garment performance and/or appearance is unacceptable.

   c. Guideline. If *all* the future production garments are identical to the PP sample will each garment meet J.Crew quality expectations?
   Yes = Approved
   No = Rejected.

Pre-Production Sample (Non-Apparel)

Objective

Prior to beginning production all vendors must submit a Pre-Production sample made to the correct quality standards for approval by the J.Crew representative. Production may not commence without PP sample approval.
The PP sample should be considered the *contract for quality.*

Package

Each vendor should submit a PP sample package to J.Crew QA agent (when requested) consisting of:

- 2 duplicate samples, in base size made using bulk fabric and trims.
- 1 Trim card.
- 1 Net pattern
- Inspection report.

Pre-Production Sample Review Steps:

1. Technical package review of all details with particular emphasis on :
    a. Fit comments:
    b. Measurement specification.
    c. Construction.
    d. Materials.
2. Pattern evaluation for the following aspects:
    a. Fit comments adjustments.
    b. General Drafting.
    c. Pattern alignment.
    d. Alteration history.
3. Fit Calibration.
    a. Approved fit sample should be reviewed on the mannequin to calibrate the auditor's eye prior to assessing the PP samples. Impact of any fit comments should be understood during this calibration exercise.
4. Mannequin review.
    a. Appearance. An initial overall assessment of the pp sample should be made on the mannequin.

b. Fit correlation. Where the fit sample was previously reviewed a correlation of fit a pp sample should be made.

c. Symmetry. Identify the existence of any asymmetrical aspects of the pp sample.

d. Manufacturing defects. It is important to recognize defects on the mannequin both the nature and the severity of them, particularly in relation to the same defect on a garment when it is flat.

e. Product finesse. The ability to discern the level of finesse in a garment is of particular importance particularly in regard to a "better" product. Defects (holes, pucker, broken stitches etc) are relatively obvious indicators of a sub standard product. Less obvious are the neatness of stitches, roll of a collar, drape of a hem line etc. An experienced auditor assessing quality must be able to recognize and articulate any quality concerns regarding product finesse of a garment in wear.

5. Quality review.

a. Visual assessment. Measurable defects should be observed including those specific defects identified in the manual and the level of finesse of a garment.

b. Internal construction. Sample should be constructed as per the tech pack, manual and fit sample. Where ambiguity exists, the assessor must obtain clarification from J.Crew.

c. Measurement: The sample should be measured, following the approved measurement method against the documented measurement chart.

6. Documentation.

a. The auditor should record results of reviews of Pattern, Measurements, Materials, Construction, Fit comments, Quality observations, Appearance, Compliance with existing standards (wash, color, trim card etc) .

7. Conclusion.

a. **Approved**. Proceed to cut bulk: In this situation both measurement and appearance are of a satisfactory standard.

b. **Rejected**. Do not proceed to cut bulk: In this situation either measurement and/or appearance is unacceptable.

Guideline. If *all* the future production garments are identical to the PP sample will each garment meet J.Crew quality expectations?
Yes = Approved
No = Rejected.

Pre-Production Meeting (Woven and Knit)

Objective

The pre-production meeting is a formal meeting between the quality and production personnel in the manufacturing prior to commencing production. The objective is to facilitate the engineering of quality into the product. This takes the form of a review of the evaluation and approval activities regarding raw materials, standard processes , exceptional processes, equipment , techniques, system capabilities and individual capabilities.

Attendees

Authorized representatives from quality, merchandising, production, technical/I.E. and line management must be in attendance. Copies of appropriate technical files , including inspection and testing records and approved standards should be on hand.

Format

Meeting should be chaired by the senior quality representative. The forum must be interactive, with contributions made from each department representative. Minutes of the meeting should be recorded, and a copy maintained in the technical file signed by all attendees. Any action required should note party responsible and completion date.

Agenda:

- Product: Review and discuss PP sample on mannequin.
- Documentation: Discuss garment specification, test reports, production plans and Pilot Run requirements.
- Fabric and Trims. Review specifications, test reports, fabric and trim standards, inspection records, defects found, special process requirements. shrinkage results.
- Cutting. Discuss yardage yield, lay plan, approved pattern and marker arrangements, special requirements (eg block cutting, relaxation, pinning), bundling, numbering and fusing plans.
- Sewing. Review operation breakdown, operation timings, quality expectations, construction details, critical inspection points (including measurements), specialized equipment and machinery requirements.
- Washing. (If product is to be washed) Wash standards (hand feel and shade band) , wash recipe, load size, special preparation (ie shade labels, pocket tacking , bartacks).
- Finishing and packing. This covers equipment, quality standards, techniques, templates required and materials.
- Follow Up . Any unresolved issues that need further follow up should be discussed with activity and responsibilities agreed, as well as checks and balances to ensure production cannot commence until the outstanding matters have been satisfactory resolved.

Pre-Production Meeting (Sweater)

Objective

The pre-production meeting is a formal meeting between the quality and production personnel in the manufacturing prior to commencing production. The objective is to facilitate the engineering of quality into the product. This takes the form of a review of the evaluation and approval activities regarding raw materials, standard processes, exceptional processes, equipment, techniques, system capabilities and individual capabilities.

Attendees

Authorized representatives from quality, merchandising, production, technical/I.E. and line management must be in attendance. Copies of appropriate technical files, including inspection and testing records and approved standards should be on hand.

Format

Meeting should be chaired by the senior quality representative. The forum must be interactive, with contributions made from each department representative. Minutes of the meeting should be recorded, and a copy maintained in the technical file signed by all attendees. Any action required should note party responsible and completion date.

Agenda:

- Risk: assessment.
- Product: Review and discuss PP sample on mannequin.
- Documentation: Discuss garment specification, test reports (if any), production plans and Pilot Run requirements .
- Yarn and Trims. Review specifications, wear trial result, yarn and trim standards, inspection records, defects found, special process requirements. Sweater dimensional stability (if any).
- Knitting. Review knitting machine to knitting worker ratio according to style, yarn, skill of worker and machinery, quality expectations, construction details, critical inspection points. .
- Linking. Review linking thread – self yarn, self-yarn + PP thread. Seam elongation standard.
- Washing. Wash standards (hand feel and shade band), wash recipe, load size, special preparation (ie soaking before washing).
- Pressing. How to ensure pressing to required shape. Storage after pressing won't create glazing. Sufficient airing time before packing.
- Finishing and packing. This covers equipment, quality standards, techniques, templates, required and materials.

- QA inspection and monitoring: Independent QA team report to management not to factory manage. Radom pick WIP from difference sections for QA inspection with record by types. Report should be reviewed with action plan.
- Follow Up. Any unresolved issues that need further follow up should be discussed with activity and responsibilities agreed, as well as checks and balances to ensure production cannot commence until the outstanding matters have been satisfactory resolved.

Pre-Production Meeting (Non-Apparel)

Objective

The pre-production meeting is a formal meeting between the quality and production personnel in the manufacturing prior to commencing production. The objective is to facilitate the engineering of quality into the product. This takes the form of a review of the evaluation and approval activities regarding raw materials, standard processes, exceptional processes, equipment , techniques, system capabilities and individual capabilities.

Attendees

Authorized representatives from quality, merchandising, production, technical/I.E. and line management must be in attendance. Copies of appropriate technical files, including inspection and testing records and approved standards should be on hand.

Format

Meeting should be chaired by the senior quality representative. The forum must be interactive, with contributions made from each department representative. Minutes of the meeting should be recorded, and a copy maintained in the technical file signed by all attendees. Any action required should note party responsible and completion date.

Agenda:

- Product: Review and discuss PP sample.
- Documentation: Discuss product specification, test reports, production plans and Pilot Run requirements.
- Raw materials. Review specifications, test reports, standards, inspection records, defects found, special process requirements. shrinkage results.
- Cutting. Discuss wastage, lay plan, approved pattern and marker arrangements, special requirements (eg block cutting, relaxation, pinning), bundling, numbering and fusing/lamination plans.
- Sewing. Review operation breakdown, operation timings, quality expectations, construction details, critical inspection points (including measurements), specialized equipment and machinery requirements.
- Washing. (If product is to be washed) Wash standards (hand feel and shade band) , wash recipe, load size, special preparation (ie shade labels, bartacks).
- Finishing and packing. This covers equipment, quality standards, techniques, templates required and materials.
- Follow Up. Any unresolved issues that need further follow up should be discussed with activity and responsibilities agreed, as well as checks and balances to ensure production cannot commence until the outstanding matters have been satisfactory resolved.

Production Progress

Work Scheduling

Effective quality management is reliant on performing the appropriate activity at the appropriate time. Correct planning and activity scheduling means critical steps are not missed or performed too late to impact the result in production. A time and action control chart should be prepared for all critical quality assurance activities. This chart is built from the product development and production schedules and QA staff should regularly consult the production WIP reports to adapt to the plan and actual dates.

Production Progress

Production progress should be monitored on a daily basis and pilot runs, inline inspections and final inspections scheduled accordingly. QA staff should verify WIP reports by visually confirming within the manufacturing environment at the beginning of the day prior to commencing any specific QA activity.

Activity Report

A completed activity record should be submitted at the end of the day summarizing the QA staff findings on production progress, quality audits. This record should be made available to merchandising partners and QA management.

Pilot Run/Line Set Up

A Pilot Run is a small production run used to scout the line set up and resulting production. It is not an expected requirement for J.Crew orders of less than 5000 units. The set up for a Pilot Run should follow the same process for the bulk production line set up.

Objective

The objective of a successful line set up is the achievement of a product quality standard consistently **"Right First Time"**. The effort expended on correct line set up is an investment that provides a return in the form of a reduction of defective products, lower costs, higher productivity and greater customer satisfaction.

Responsibilities

Line management or engineering department are responsible for creating a balanced line plan and operation breakdown, including any work aids or attachments required.

The mechanic is responsible for ensuring all appropriate machinery, guides, templates etcetera are made available to the production team.

The line leader is the primary individual responsible for ensuring that the operations are performed to the appropriate standard.

The quality/technical manager is responsible for ensuring that the mechanic and the line leader have executed these responsibilities correctly.

Activities

The mechanic should proceed from operation to operation ensuring that each machine set up is appropriate (tension, feed dogs, folders etc). After completion the mechanic should sign off a maintenance card , kept at the machine to indicate machine is ready .

The line leader/supervisor should follow the mechanic to each operation and issue instruction and/or training to the operator. Standards should be issued at each workstation and a duplicate of the standard should be completed by the operator with supervisory sign off as verification of the individual's capability of meeting the standard.

Line set up process should also identify critical inspection points, and a similar approach should be taken in regard to equipment standards and instruction.

The quality/ technical manager should proceed after both mechanic and line leader have completed their tasks and verify that set up has been completed correctly, supporting documentation is present at each workstation and individual operators are performing to the required standard. Product must include evaluation on the mannequin with a comparison against the PP sample. Any failures observed at this

point should be result in immediate corrective action. Corrective action may vary from repetition of initial process to replacement of equipment or operator as agreed between QA and Line management.

Pilot/First Off Audit

Initial completed production units from the Pilot or Line Set up should be audited by the Quality auditor for measurement and workmanship. All results should be recorded on an product audit report and copies submitted to all interested parties. Any corrective action required at this point should be agreed upon by quality and production staff, tested to confirm results and included on the report.

TOP Sample

Objective

In certain circumstances J.Crew requires submission of a "Top of Production" sample prior to shipment which should be taken from the initial production output. The TOP sample *must* be produced in an actual production line that is used during bulk assembly and should reflect the quality standard agreed prior to production commencing.

Best Practices

TOP samples should be taken from the earliest stage of manufacturing. Best practice is for the quality assurance auditor to walk cut work, themselves, from operation to operation through the production line as soon as the line is operational. Proceeding in this manner allows auditors to obtain an accurate understanding of the method of manufacture, troubleshoot initial set up problems and obtain a sample of bulk production to the desired standard. TOP must include evaluation on the mannequin with a comparison against the PP sample.

Inspection

TOP samples should be inspected using a similar process as Pre-Production samples. All measurements and comments should be documented and accompany the TOP sample.

In Line Audit

An inline audit is an inspection performed during production on the output at various stages of assembly. An inline audit should be performed at least once every week by the J.Crew agent and daily by manufacturers internal QA. The audit should include cutting, fusing, embellishment, sewing, washing, finishing, pressing and packing.

Objective

The objective of an in-process audit is to verify compliance of manufacturing processes and outputs meet agreed standards.

Requirements

Prior to starting the auditor must have to hand: WIP status, Style file, Pre-Production sample and suppliers internal quality reports.

Procedure

Production Status: Review production status against purchase order calendar. When appropriate confirm WIP report is accurate by visual verification.

Documentation review: Check each item in factory style file is completed, facilitate closure of any open items. Review PP meeting record against PP sample, confirm outstanding issues identified at the PP meeting have been resolved. Review any prior quality audit information to identify potential processes to audit.

Audit Plan: Identify the current stages of manufacturing.
Identify the critical operations in each stage of manufacturing and who is performing these individual operations. Establish which operations will be visited during the in-process audit.

On Site Audit: At each department visited make a visual assessment of organization, workflow, in process quantity to assess accuracy of WIP/ Production status report. Proceed to pre-determined operations and visually validate that operation methods and standards are available and being followed. Upon completion of operation select appropriate number of units and inspect quality of workmanship, highlight any defects to the line supervisor (or production representative). **Caution!** Do not attempt or allow remediation of defects at this stage. If nature of defect is not repairable then instruct line management to halt operation and then continue with audit as planned. Review internal quality documentation to establish correlation between internal and external auditor findings. Product must include evaluation on the mannequin with a comparison against the PP sample.

Report: Complete inspection form documentation indicating number and nature of defects found during the inspection. This should include any observations regarding WIP.

Discuss with production representative the appropriate remedial action of individual quality issues, including rework, operator re-training and internal auditor calibration. Record as a Corrective Action Plan (CAP).

CAP: Denote nature of problem, steps to be taken, responsibility for and date of completion.
Rework method should be tested and reviewed to confirm it is successful.

Shipment Product Audit

Objective

Applies to all garment, footwear and accessories and is conducted on every shipment to assure that goods meet the corporate quality requirements prior to delivery.

Pre-Inspection

Inspector must be trained and certified by QA Manager prior to starting inspection.

Inspection shall be conducted at designated inspection tables with adequate lighting and appropriate tools.

Inspector shall refer to AQL chart in the appendix of this SOP to determine appropriate sample lot size for each batch.

Goods to be inspected must be 100% packed into cartons and packing list available prior to commencement.

Inspection

PO/Style will be treated as an individual lot for random sample purposes. Each lot may contain multiple colors and sizes.

Inspections will be conducted in accordance with the ANSI/ASQ Z1.4 standard, single sampling, Normal inspection, General Level II.

Critical defect: Zero tolerance for critical defects

Major defect: AQL 2.5

Minor defect: will be recorded and quantified as 3 minor defects = 1 major defect.

Items sold as a set (ie a suit) shall be viewed as one item. ie a sampling of 50 units mean that 50 pants and 50 jackets shall be inspected.

Defect Classification:

Critical Defect: Any non-conformance or feature of the product that may pose a safety hazard to the end user. Zero tolerance is applied to critical defects.

Major Defect: Any non-conformance that affects the appearance, performance, fit or customer satisfaction to such a degree that a discerning customer would not purchase or return or complain.

Minor Defect: Any non-conformance that is not sufficient in degree to be classified as a Major Defect and would not provide a discerning customer with a reason to not purchase or return or complain.

A unit will be considered defective if 1 major defect is found, no further inspection of that unit will be taken.

The discovery of a single critical defect will automatically render the inspection result as rejected.

Prior to starting the inspection, the auditor must review the production file for construction and measurement details and passing test records. Shipment inspection may not proceed without passing test reports.

Method

Check packaging, ticketing and labeling is as per specification including number of items per carton.

Check for visible surface defects including construction defects (twisted, puckered or uneven seams including thread ends), residual contaminants (oil, glue , ink, dirt marks), material defects (fabric defects such as slubs, broken yarns , scratches,) discoloration of parts or color shading within an item, lack of symmetry , pocket placement and size etc.

Check all functional aspects (buttons, zippers, snaps etc)

For apparel turn inside out and review internal construction details, seams, thread ends etc. Product must include evaluation on the mannequin with a comparison against the PP sample.

All defects found must be identified on the item with a non-permanent sticker/tape

Measurement

J.Crew requires compliance to an AQL of 2.5 on any unit with a critical measurement found out of tolerance.

Standard measurement audit for apparel will be as follows:

1) PO Quantity.
    a. < 10,000 units: Sample Size 32 pieces across all sizes and colors
    b. > 10,001 units: Sample Size 50 pieces across all sizes and colors
2) Measurement Points.
    a. Critical measurements only
3) Pass / Fail result.
    a. 32 Pieces: 2 / 3
    b. 50 pieces: 3 / 4

4) Defect Definition.
   a. Any unit with one critical measurement found out of tolerance will be considered a major measurement defect.
5) Failure response.
   a. Any measurement failure found at final inspection must be reported to J.Crew Regional Technical Manager by the Brand technical Manager .
   b. Technical Manager will have the discretion to require.
      i. Require removal of out of tolerance units and re-inspection.
      ii. Upgrade to Pass.
      iii. Refer to Regional Quality Director.
      iv. Refer to VP of Quality.
6) Critical Measurement Points.

   All inspection findings shall be recorded on the inspection and measurement reports in QUONDA.
7) The measurement checking requirement to BTM/FCA

   BTM and FCA are responsible for bulk measurements compliance to J.Crew requirements.
   a. Bulk measurement inspection control in pilot run/inline/final inspection:

      AQL 2.5 – random pick 32 or 50pcs
   b. Minimum 1 pc per size across all colors for full points measurement inspection.

      Others, critical points measurement inspection.
   c. Major defect – critical measurement point
   d. Non-critical measurement failure not countable in any Major or Minor Defect. Non-critical measurement failure should be remarked in inspection report and alert J.Crew technical manager.
8) The measurement checking requirement to the 3rd Party Auditor

   The 3rd Party Auditor is responsible for bulk measurements compliance to J.Crew requirements.
   a. Bulk measurement inspection control in final inspection:

      AQL 2.5 – random pick 32 or 50pcs
   b. Minimum 1 pc per size across all colors for full points measurement inspection.

      Others, critical points measurement inspection.
   c. Major defect - Critical measurement point
   d. Non-critical measurement failure not countable in any Major or Minor Defect. Non-critical measurement failure should be remarked in inspection report and alert J.Crew technical manager.

Inspection Result

To obtain an inspection result denoting "PASS" the following three criteria must be fulfilled:

Visual Inspection: Meets the AQL 2.5 pass/fail requirements for major defects. Zero tolerance for critical defects.

Measurement: Meets AQL 2.5 pass /fail requirements for major measurement defect. (ie critical measurement found out of tolerance)

Labelling & packaging: Zero tolerance for deviation from standard.

An inspection result that does not fulfill the above three criteria will be denoted as a "FAIL".

All failed QA inspection results will require to be communicated immediately to both Production and QA management simultaneously by email. A copy of the failed QUONDA inspection report along with measurement records and photographs of the defects (if appropriate) should be attached for apparel.

QA & Production management will review and advise disposition by return. Disposition may include proceed to 100% sort and separate, rework, hold pending further review by J.Crew, etc.

Examples of defective units may be required separately by both Production and QA for further review/processing and such items should be sent to each department accompanied by the inspection report.

Reporting

All J.Crew agents shall collect data on the first-time pass rate performance of individual manufacturers. Following confirmation from QA manager that an inspection is validated as a manufacturing failure, QA shall enter inspection data into a Supplier Performance Summary. This summary should be cumulative and forwarded to J.Crew Senior QA Manager (Susan Matteo) on a quarterly basis. J.Crew will use this data to contribute to the supplier quality scorecard.

Appendix A - AQL Chart

General Inspection Level 2, Single Sampling Plan AQL 2.5

Batch Size	Sample Size	Critical Defects		Major Defects	
		Accept	Reject	Accept	Reject
2 to 8	2	0	1	0	1
9 to 15	3	0	1	0	1
16 to 25	5	0	1	0	1
26 to 50	8	0	1	0	1
51 to 90	13	0	1	0	1
91 to 150	20	0	1	1	2
151 to 280	32	0	1	2	3
281 to 500	50	0	1	3	4
501 to 1,200	80	0	1	5	6
1,201 to 3,200	125	0	1	7	8
3,201 to 10,000	200	0	1	10	11
10,001 to 35,000	315	0	1	14	15
35,000 to 150,000	500	0	1	21	22

Appendix B - Critical Measurement Chart

Critical Points of Measurement for all product categories (Woven / Knit / Sweater)

Tops:	**Dresses / Gown:**
Body Length (Front and Back) Armhole Sleeve Length Neck Width Neck Stretch Circumference (If Applicable) Collar Point (If Applicable) Shoulder Width Chest Waist (If Applicable) Bottom or Sweep Muscle width Cuff or Sleeve Opening Zipper Length	Body Length (Front and Back) Armhole Sleeve Length Neck width Neck Stretch Circumference Collar Point (If Applicable) Shoulder Width Chest Waist (If Applicable) Hip (If Applicable) Bottom or Sweep Muscle width Cuff or Sleeve Opening Zipper Length
Bottoms:	**Bodysuits**
Front Length / Back Length / Outseam of Skirts Inseam for pant / short Front Rise Back Rise Waist relaxed and stretched High and Low Hip Thigh Knee Leg Opening or Sweep Zipper Length	Body Length (Front and Back) Armhole Sleeve Length (if applicable) Neck width Neck Stretch Circumference (if applicable) Collar Point (If Applicable) Shoulder width Chest Waist (If Applicable) Hip (If Applicable) Leg Circumference Neck and Leg minimum Stretch Crotch width Zipper Length

Jackets / Coats / Blazers / Outerwear / Robe Body Length (Front and Back) Armhole Sleeve Length Neck Width Collar Point (If Applicable) Shoulder Width Across front / back Chest Waist Hip Bottom or Sweep Muscle width Cuff or Sleeve Opening Zipper Length	**Jumpsuit** Body Length (Front and Back) Armhole Sleeve Length Neck width Neck Stretch Circumference (if applicable) Collar Point (If Applicable) Shoulder width Chest Waist (If Applicable) Hip (If Applicable) Knee Leg Circumference Cuff or Sleeve Opening
Swimwear: Top & Bottom **Unlined & Wired Bra / Bandeau/ Bralette** Under-band (Relaxed & extended) Neckline (for U-Neck or Top Cup Neckline) Cup height & width Wire casing length (if application) Total amount of wire play CF gore top / bottom / height Hook up distance Wing length and height Side height/side cup length Strap distance (front & back) Strap length (with 2 ½" or 3 ½" adjustment) Strap Width **Brief/Bikini/ String bikini** Waist measurement (Relaxed & extended) Princess seam width at Waist & Leg (if applicable) Front & back rise Side seam height Crotch length (if gusset applicable) Crotch width at seam Crotch width at narrowest point Leg circumference (Relaxed & extended)	**Swimwear: Full body** **Wired & Non-wired** Neckline (for U-Neck or Top Cup Neckline) Neckline extended (if application) Total Cup height Top & bottom cup Across cup width Wire casing length (if application) Total amount of wire play CF gore top / bottom / height Strap distance (front & back) Back neck Stretchability (example: Middle 5" stretches to 7") Strap length (with 2 ½" or 3 ½" adjustment) Strap Width Waist width (with extended if application) Waist width at narrowest point (if applicable) CF / CB length Side seam height (from Top to Bottom) Crotch length / front width / back width Leg circumference (Relaxed & extended) Front leg Stretchability (example: Middle 5" stretches to 7")

Appendix C – J.Crew Inspection report.

J.CREW Madewell J.CREW FACTORY

J.CREW Madewell SINCE 1937 CREWCUTS

J Crew Audit Report				
Date:		Inspector's Name:		
Agent:	Vendor:	Style#:		
PO #:	Color #:	PO Quantity:	Audit Quantity:	
Item Description:		Division:		
Accepted:	Hold Shipment for following reason:			Rejected:
Description of Defect & Location:		Critical	Major	Minor
Material(Slubs, Cuts, Pulls, Hotels, Mends, Pattern, Odor, Textile):				
Workmanship (Seams, Hems, Stitching):				
Measurements(Indicate Specific Sizes Which Failed to Meet Tolerances):				
AQL 2.5 Pass/Fail:	Total:			
Other(Labeling etc.):		Care & Content Label Inspections:		
Security Label ☐		Correct ☐ Incorrect ☐		
Total Garments with Major Defects:		Minor Defects:		
Remarks:				

Appendix D – J.Crew Quality Team Contacts

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