BODY ARMOR

FOLLOW-UP INSPECTION AND TESTING

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1.0 Purpose

Follow-up inspection and testing is a requirement of the NIJ Compliance Testing Program (CTP) and involves the periodic inspection and testing of body armor models previously type tested and found to comply with NIJ 0101.06, Ballistic Resistance of Body Armor.

After a body armor model is listed on the NIJ Compliant Products List, ongoing performance is monitored by a follow-up process that periodically selects, tests, and inspects subsequent production samples of Listed body armor models.

2.0 Scope

The scope of this document is applicable to the CTP, applicants, manufacturers, test laboratories and inspection bodies who voluntarily participate in the NIJ Body Armor Compliance Testing Program.

3.0 References

The following referenced documents are indispensible for the application of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

CTP 1-00; National Institute of Justice Compliance Test Program, Administrative Manual
CTP 2-05; Appeals, Complaints and Disputes
CTP 2-07; Records
CTP 2-10; Follow-up Inspection and Testing
CTP 2-12; Extending, Suspending and Withdrawing NIJ Attestation
NIJ 0101.06; Ballistic Resistance of Body Armor

NOTE Further related standards, guides, etc. on subjects included in this document are given in the Bibliography.

4.0 Definitions

For the purpose of this document, the terms and definitions given in ISO/IEC 17000:2004 and the following apply:

Active List: CTP internal list of all models currently in compliance with NIJ Body Armor CTP Program and currently being inspected on a regular basis. Does not list models placed on Production Hold.
Attestation of Conformity: The issuance of a statement, based on a decision following review, that fulfillment of specified requirements has been demonstrated. For the CTP, this statement is in the form of the issuance of an NIJ Notice of Compliance and inclusion on the publicly accessible Compliant Products List.

Applicant Signatory: An officer of the Applicant who has the authority to bind it contractually.

Authorized Representative: An employee or officer of the body armor applicant who is qualified and authorized to respond on its behalf to questions from the CTP regarding the information contained in the application and/or the technical aspects of a body armor model submitted for testing.

Applicant: An entity that submits an application for participation in the CTP and submits body armor test samples for compliance testing.

Build Sheet: The specification sheet for a body armor model, which fully describes construction and design features of the body armor model. A template is provided by the CTP and must be adhered to by body armor applicants.

CTP-filed Build Sheet: The formal record with the CTP of the official documentation of design and construction of a specific body armor model listed on the Compliant Products List.

Compliance Decision: The determination of a body armor model’s compliance status based on evaluation of the test data, examination of submitted body armor test samples and build sheets, and agreement by the applicant to participate in the follow-up process.

Compliance Testing Program (CTP): Controls all activities related to the implementation of NIJ standards for personal body armor and verifies that commercially available body armor meets minimum performance requirements.

Compliant Products List: A publicly accessible record of body armor models that have been issued an NIJ Notice of Compliance, which indicates that the models have successfully met all requirements of the appropriate standard and the CTP.

Follow-up Inspection and Testing: A process intended to provide confidence that ongoing production of listed body armor models continues to meet requirements in accordance with the appropriate standard and CTP requirements.

Construction: A ballistic body armor’s fabrication including materials, cut, assembly and other unique characteristics.

Design: Product construction characteristics and specifications listed on the build sheet and which can be visually identified and verified by comparison with the build sheet.

Follow-up Test Report (FTR): Data and information resulting from follow-up testing sent directly to the CTP by an NIJ-approved test laboratory. The FTR has a prescribed format and prescribed data definitions and is submitted using a set of spreadsheets provided by the CTP.
**Initial Product Inspection**: The first FIT Inspection performed on a new model after receiving NIJ Attestation.

**Inspection Body**: An entity contracted by the CTP to conduct follow-up activities as described by the CTP, including selection of production body armor samples.

**Inspection List**: CTP internal list of all models currently in compliance with NIJ Body Armor CTP Program, not placed on Production Hold and which is due for FIT.

**Listed Company**: The entity listed on the Compliant Products List associated with specific listed body armor models.

**Major Variation**: Models used for initial CTP type testing are not representative of current production body armors for the purpose of the CTP (i.e., current production body armors are a “new and distinct” model).

**Manufacturer**: Name and physical location(s) of the body armor production facility.

**Minor Variation**: Models used for initial CTP type testing continue to be representative of current production body armors for the purpose of the CTP.

**Model**: The manufacturer’s design, with unique specifications and characteristics, of a particular item.

**Model Designation**: A unique identifier permanently assigned to a specific construction of body armor that has received an NIJ Notice of Compliance. Not to be confused with a marketing or brand name.

**Model List**: List of all models currently in compliance with NIJ Body Armor CTP Program.

**NIJ Advisory Notice**: A notice posted with the Compliant Product List to inform law enforcement and correctional officers that a model currently on the Compliant Product List has been suspended pending an ongoing evaluation of production issues.

**NIJ-approved Test Laboratory**: A ballistics facility authorized to examine body armor in accordance with the standard and CTP program requirements.

**NIJ Non-compliance Notice**: A notice posted with the Compliant Product List to inform law enforcement and correctional officers that production samples of a model currently on the Compliant Product List have been identified as having characteristics which have the potential of not being compliant with NIJ 0101.06. The entire model or a portion of a specific production run should be replaced as soon as possible.

**NIJ Safety Notice**: A notice posted with the Compliant Product List to inform law enforcement and correctional officers that production samples of a model currently on the Compliant Product List have been identified as having characteristics which do not comply with NIJ 0101.06. The entire model or a portion of a specific production run should be replaced as soon as possible.
Non-compliant: Status of a body armor model when testing or evaluation demonstrates that a body armor model does not satisfy one or more of the CTP requirements. Non-compliant models are not listed on the NIJ Compliant Products List.

Product: One unit of a particular model.

Production Hold: Describes the status of a body armor model which is on the Model List but which is not currently available for production without prior communication with the CTP.

Quality Management System (QMS): A documented set of processes, policies and procedures governing business practices.

Quality Management System Registrars/Certification Bodies: Organizations accredited by the American National Standards Institute/American Society for Quality (ANSI/ASQ) National Accreditation Board to audit and issue formal confirmation that specific body armor manufacturing location(s) have implemented a QMS in accordance with the ISO9000 series and in conjunction with specific NIJ body armor requirements.

Statement of Compliance: Specific language placed on a body armor model for which NIJ has issued a Notice of Compliance to the body armor applicant.

Suspended: The temporary compliance status of an NIJ listed body armor model when one or more of the required conditions for compliance or listing is not met (either intentionally or unintentionally) due to an action on the part of the body armor applicant. Suspended models will remain on the Compliant Products List but be clearly distinguished from fully compliant models for the duration of the suspension period.

Type Testing: Initial assessment of body armor model samples in accordance with the standard and as specified by the CTP. The resulting data will be used to determine conformity with program requirements and support ongoing follow-up (demonstrate conformity of body armor models to those originally tested and found compliant).

Voluntarily Withdrawn: The compliance status of an NIJ listed body armor model when, at the request of a body armor applicant, NIJ permanently removes the model from the NIJ Compliant Products List.

Withdrawn: The compliance status of an NIJ listed body armor model when one or more of the required conditions for compliance or listing fails to be met (either intentionally or unintentionally) due to an action on the part of the body armor applicant. Revoked models are permanently removed from the NIJ Compliant Products List.

5.0 Responsibilities

5.1 CTP

5.1.1 NIJ (select staff members)

   a) makes final decisions concerning continued compliance and Listing
b) reviews and approves CTP corrective actions including complaints by manufacturers

5.1.2 National Law Enforcement and Corrections (NLECTC)-National (select staff members)

a) tracks model inspection schedule, identifying test laboratory and then notifying inspection body

b) reviews FTRs to make recommendations concerning continued compliance

c) works with applicants to resolve variations in construction or noncompliances

d) identifies minor or major variations and makes recommendations to NIJ

5.2 Inspection Body

a) maintains an accredited ISO/IEC Guide 65 or ISO/IEC 17020 system;

b) maintains compliance with accredited ISO/IEC Guide 65 or ISO/IEC 17020 program when performing functions for the Follow-up Inspection and Testing Program;

c) implements signed confidentiality agreements with all staff involved with this program consistent with the requirements of ISO/IEC Guide 65 and/or ISO/IEC 17020;

d) conducts all onsite follow-up inspection activities as defined in this document and as directed by NLECTC–National;

e) performs accounting operations to include billing applicant and paying test laboratories;

f) reviews inspection reports for completeness and correctness prior to submittal to CTP;

g) reviews test reports for compliance with the requirements contained in this document and communicates with test laboratories concerning corrections;

g) supplies copy of final test report to the CTP.

5.3 Applicant

a) notifies the CTP of any changes to: model construction, manufacturing locations, production hold status, contact staff, or changes in BA 9000 status

b) facilitates inspection by providing facility access and escort to inspection body in a timely manner

c) documents and records resolution of all complaints made known to the body armor applicant relating to a product’s compliance with the relevant requirements of the standard and makes these records available to the CTP when requested.
d) takes appropriate action with respect to such complaints and any deficiencies found in products or services that affect compliance with the CTP requirements.

5.4 Test Laboratory

a) continues participation as an NIJ-approved Test Laboratory

b) full compliance with ISO/IEC 17025

6.0 General

6.1 Manufacturing Location

6.1.1 Applicants shall identify all manufacturing locations and the associated Listed armor prior to the beginning of production of that Listed armor.

6.1.2 All manufacturing locations identified by an applicant shall be inspected in accordance with this document for all Listed models of body armor produced at that location.

6.1.3 All body armor provided to the CTP for follow-up inspection and testing shall be manufactured at the location subject to the inspection using production methods typical for that manufacturing location.

6.2 Body Armor Follow-up Frequency

6.2.1 Applicants may select one of two options concerning the frequency of Follow-up Inspection and Testing:

a) Option 1 is for body armor applicants whose manufacturing locations do not have a registered BA 9000 QMS. Follow-up Inspection and Testing will be conducted at least six times within a 60-month listing cycle.

b) Option 2 is for body armor applicants whose manufacturing locations have a registered BA 9000 QMS. To demonstrate compliance with CTP QMS requirements, the current certificate of registration/certification must be provided to the CTP. Follow-up Inspection and Testing will be conducted at least three times within a 60-month listing cycle.

6.2.2 The CTP reserves the right to increase the frequency of Follow-up Inspection and Testing for body armor applicants who repeatedly fail to produce body armor consistent with the requirements of this program.

6.3 Elements of Body Armor Follow-up Inspection and Testing

6.3.1 Follow-up Inspection is the primary method for determining if production samples continue to be represented by samples provided for initial type testing and review. This involves:

a) visual inspection of samples

b) review of build sheets (both current production and CTP-filed build sheets)
6.3.2 Follow-up Testing is used as a quality control check to ensure that unnoticed or unintentional variations have not occurred during the manufacturing process. Follow-up testing reflects only a portion of initial type testing and is therefore not a conclusive indication that production armor would satisfy the full requirements of initial type testing.

6.4.3 A Follow-up Testing Failure Indicates:

a) a failure has occurred in the manufacturer’s quality system which may have allowed production body armor to be produced which does not meet the minimum requirements established by NIJ 0101.06

b) a portion of current production body armor is no longer represented by body armor samples submitted for initial type testing

c) non-compliant body armor labeled as compliant has been produced and may be currently in use

d) failures may be related to unreported changes in design or errors in construction

6.4.4 Follow-up CTP Inspection Failure Indicates

a) current production body armor has not yet been evaluated by the NIJ Body Armor CTP for compliance with NIJ 0101.06

b) alone, does not indicate production body armor does not comply with NIJ 0101.06

6.4.5 Follow-up Construction Variation Indicates

a) unreported variations have appeared in production body armor which are so minor that continuing compliance with NIJ 0101.06 is not in question or;

b) unreported variations have appeared in current production build sheets such that they no longer match CTP-filed build sheets for that model

6.5 Follow-up Test Report

6.5.1 The FTR format shall be provided by the CTP and the laboratory shall complete the form in compliance with ISO/IEC 17025. The FTR shall contain the following items:

a) a title (e.g. “Test Report”);

b) the name and address of the laboratory and the location where the tests were carried out, if different from the address of the laboratory;

c) unique identification of the test report (such as the serial number), and on each page an identification in order to ensure that the page is recognized as a part of the test report, and a clear identification of the end of the test report;

d) the name and address of the inspection body, manufacturing location and CTP;

e) identification of the test method used;
f) a description of, the condition of, and unambiguous identification of the item(s) tested;
g) the date of receipt of the test item(s) where this is critical to the validity and application of the results, and the date(s) of performance of the test;
h) the test results with, where appropriate, the units of measurement;
j) the name(s), function(s) and signature(s) or equivalent identification of person(s) authorizing the test report;
k) where relevant, a statement to the effect that the results relate only to the items tested;
l) deviations from, additions to, or exclusions from the test method, and information on specific test conditions, such as environmental conditions;
m) where relevant, a statement of compliance/non-compliance with requirements and/or specifications;

6.5.2 The test laboratory shall provide a signed original test report to the Inspection Body.

6.6 Test Laboratory Shot Placement

6.6.1 The CTP will not provide any special instructions in regards to built up areas, or shot-to-edge requirements on models for FIT Testing.

6.6.2 Within the limits of the standard, test laboratories should place shots on obvious or potential weaknesses such as seams or darts if they are easily located without CTP guidance, as would be done on standard type testing. Also, shots should be placed off of obvious build-ups like front-opening models.

6.6.3 The panels should be marked and shot using normal procedures for the 2” and 3” shot-to-edge maximums.

6.7 CTP Inspection

6.7.1 The CTP reviews the FTR, body armor samples and build sheets (both CTP-filed build sheet and current production build sheet) to identify any noncompliances and determine if additional action is necessary.

6.7.2 The CTP maintains the body armor samples in a secure archive until ongoing compliance status has been determined.

The CTP notifies the applicant of the Follow-up Inspection and Testing final outcome.

6.8 NIJ Advisory Notice

NIJ Advisory Notices shall be published within one business day and cover the entire model (all locations). It is intended to communicate a concern as quickly as possible. Due to time constraints, it is often sent prior to any analysis and may be broad in scope.
6.9 Production Hold

6.9.1 Applicants may place manufacturing locations on Production Hold Status for specific models.

6.9.2 Applicants wishing to place a model for a specific location on Production Hold (remove from Active List) shall submit a written request to the CTP containing the following:
   a) manufacturing location, model, last production date, last serial number;
   b) authorized (signed) by the Applicant Signatory or an Authorized Representative.

6.9.3 Due to advance scheduling, requests for Production Hold Status may take up to 30 days to implement following receipt of formal request.

6.9.4 Applicants wishing to remove Production Hold Status (place on Active List) shall submit a written request to the CTP containing the following:
   a) manufacturing location, model, next production date, next serial number;
   b) authorized (signed) by the Applicant Signatory or an Authorized Representative;
   c) must be received by the CTP at least five business days before the scheduled next production date. (notifications shorter than two weeks may incur additional costs).

6.9.5 Any ballistic armor produced while a manufacturing location is on production hold for that model will be considered as not compliant and subject to an official NIJ Notification (Advisory, Non-compliance or Safety).

6.10 Significant Potential Risk

NIJ reserves the right to immediately withdraw or suspend any model body armor which they determine poses a significant potential risk to end users.

7.0 Procedure

7.1 Scheduling

7.1.1 The CTP shall document all manufacturing facilities and the body armor models they manufacture which are subject to CTP requirements.

7.1.2 After a model has been awarded NIJ Attestation it shall be added to the Models List. After it has completed its Initial Product Inspection, it shall be added to the Active List and the Initial Product Inspection shall be considered a completed FIT Inspection.

7.1.3 Once a model has completed a FIT cycle, it shall be removed from the Inspection List during which time additional samples shall not be identified for use in FIT.

7.1.4 Following a period of 8-12 months (the number of months shall be random within the specified range), the model shall be returned to the Inspection List to indicate that it is due for inspection.
7.1.5 While a manufacturing location has models on the Inspection List it shall receive a FIT visit at the following frequency:

a. 7 or more models on Inspection List: every month
b. 5 or 6 models on Inspection List: every 1-3 months
c. 3 or 4 models on Inspection List: every 2-4 months
d. 1 or 2 models on Inspection List: scheduled

7.1.6 During an inspection, any models present on the Inspection List for that location shall be used in the FIT if it is available. Models which are not present on the Inspection List shall not be inspected or sampled.

7.1.7 The CTP shall notify the inspection body when a manufacturing facility requires follow-up inspections. The CTP shall provide the following information to the inspection body:

a) manufacturing location
b) manufacturer contact (as identified by the applicant)
c) model designation(s) – inspection should include as many listed models manufactured at location as possible
d) test laboratory information for each model

7.2 Inspection

7.2.1 All unscheduled inspections will be completed by the inspection body within 30 days of notification by the CTP.

7.2.2 The inspector shall:

a) arrive (unannounced if unscheduled) at the designated manufacturing facility during normal business hours with sufficient time to complete the follow-up inspection;

b) request the manufacturer contact;

c) present his credentials to the manufacturer’s representative prior to entering restricted areas;

d) direct questions and requests to the manufacturer’s representative;

e) from production floor (near end of the assembly process if possible), identify two samples of each model for testing;

i. sample only models listed on the inspection sheet (do not select models not listed on the inspections sheet, even if they are available);

ii. samples may have just been completed (not brought from storage);

iii. samples may be completed while inspector is at facility;
iv. samples do not require carrier (unless it is front opening).

f) once samples have been identified for this FIT cycle, observe manufacturer demonstrate traceability of all FIT Samples back to purchase orders of ballistic materials;

g) copies of purchase orders (identified in Item f) and construction information (applicant build sheets) shall be sent to the CTP (any pricing or payment information may be remove or made illegible);

h) witness packaging of selected body armors and CTP provided Testing Sample Shipping Form for shipment to test laboratory (may use manufacturers account to label and pay for shipping);

g) transport them to the appropriate company for shipment to the test laboratory specified by the CTP;

7.2.3 The manufacturing representative shall:

a) escort the inspector within the manufacturing facility;

b) identify models currently in production to the inspector;

c) “pull” sample body armors from production, as identified by the inspector;

d) provide body armor packaging materials (material normally used when shipping production body armor is preferred) to the inspector for shipping sample body armors to the test laboratory;

e) provide inspector with current manufacturer build sheets used in production for sample body armors;

f) for samples provided to the inspector, provide copies of all purchase orders for ballistic material used in provided samples.

7.2.4 In the event that a model scheduled for inspection is not available at the time of the inspector’s visit, the inspector shall complete additional steps described in Section 7.7 (Subject Body Armor not Available During Inspection) of this document.
7.3 Follow-up Testing Phase 1

7.3.1 Upon receipt of a follow-up sample package, the test laboratory shall perform an initial inspection and document the results on the follow-up test report and the Testing Sample Shipping Form:
   a) inspect packing material to determine what (if any) damage occurred during shipping
   b) inspect labeling and workmanship of body armors to verify that body armors are complete (finished) and not damaged
   c) confirm that correct model and quantity (as specified by the Testing Sample Shipping Form) were received
   d) immediately report any concerns to CTP

7.3.3 Follow-up testing is limited to perforation testing only.
   a) Perforation testing will be performed on two body armors of a single model.
   b) The body armor panels will be submersed per Section 7.8.2 of NIJ Standard 0101.06, and six shots per panel will be shot as is required for the Perforation-Backface Signature testing protocol (NIJ Standard 0101.06, Section 7.8).
   c) Backface Signature will not be measured as a part of testing.
   d) The threat rounds will be as indicated in NIJ Standard 0101.06, Table 4.
   e) Where two calibers are specified, half of the shots will be taken with each threat round (one threat round type per body armor specimen).
   f) The test laboratory records the results on the FTR-1 (Follow-up Inspection and Test Report Phase 1).

7.3.4 The test laboratory then submits the test report to the Inspection Body for Review

7.3.5 After the inspection body has approved the test report, the test laboratory may send the tested samples to the CTP along with a hard copy of the test report.

7.3.6 If multiple perforations occur (single or both threat rounds), the CTP must be alerted and the samples shipped to them immediately (overnight shipping).

7.3.7 If a single perforation occurred during Follow-up Testing Phase 1, Follow-up Testing Phase 2 must be completed else proceed to Section 7.6.

7.4 Follow-up Testing Phase 2

7.4.1 After receipt of final Phase 1 Test Report indicating a single perforation, the CTP shall provide written instruction to the Applicant concerning the fabrication and delivery of five additional samples of the same model, shape and size as previously provided
and perforated. For processing reasons, the CTP shall also notify the Inspection Body of the required Phase 2 Testing.

7.4.2 The test laboratory shall apply the testing procedure described in Section 7.3 of this document to the five additional samples provided using the same threat round which previously perforated the model armor during Phase 1.

7.4.3 The test laboratory then submits the FTR-2 to the Inspection Body and the samples to the CTP for review.

7.4.4 The Inspection Body shall then:
   a) review the Phase 2 Test Report for compliance with requirements
   b) provide final test report to the CTP
   c) bill applicant
   d) make payment to the test laboratory

7.5 CTP Review

7.5.1 Follow-up Testing Results (includes both Phase 1 and if necessary Phase 2)
   a) one perforation or less – pass
   b) more than one perforation – failure

7.5.2 Follow-up Testing Failure Actions:
   a) suspend specific model of body armor;
   b) publish advisory notice;
   c) instruct applicant in a formal written communication to:
      i. provide advisory notice to past and current client (end user/purchasing agent) who have purchased or contracted for purchase the subject model body armor
      ii. perform a thorough root cause analysis (CTP may reject and return to manufacturer for additional work, without extending time limit)
      iii. identify all impacted body armors (serial number/lot number/date of manufacture/manufacture location)
   d) the entire model line shall be considered as being impacted by this issue if the applicant fails to properly identify affected body armor within 30 days;
   e) impacted body armors shall be withdrawn.

7.5.3 Follow-up Construction Review
   a) The current production build sheet is compared with construction details documented during initial evaluation of armor prior to Listing.
b) The samples provided for testing are reviewed to determine if they are constructed similarly to armor provided for initial type testing prior to Listing.

7.5.4 Follow-up Construction Review Results
   a) production samples and all build sheets are consistent – pass
   b) current production body armor is no longer represented by body armor samples submitted for initial type testing – failure
   c) current production body armor continues to be represented by body armor samples submitted for initial type testing but variations are identified in construction (minor) or build sheet documentation – variation (minor)

7.5.5 Follow-up Construction Review Failure Actions (Follow-Up Testing Pass):
   a) suspend specific model body armor;
   b) direct applicant (memo) to:
      i. perform a thorough root cause analysis (CTP may reject and return to manufacturer for additional work, without extending time limit)
      ii. identify all impacted body armors (serial number/lot number/date of manufacture/manufacture location)
   III. provide samples and documentation for full type testing and evaluation on new distinct model
   c) the entire model line shall be considered as being impacted by this issue if the applicant fails to properly identify impacted body armor within 30 days;
   d) failure of the applicant to submit samples and documentation for full type testing within 30 days shall be treated as a failure of the body armor to meet the requirements of NIJ 0101.06 and the impacted body armors shall be withdrawn;
   e) failure to pass full type testing and evaluation shall result in withdrawal of all impacted body armors.

7.5.6 Follow-up Construction Variation Actions (Follow-Up Testing Pass):
   a) direct applicant (memo) to provide revised/updated documentation to eliminate variation;
   b) failure of applicant to submit requested materials within 30 days shall cause the model to be suspended;
   c) failure of applicant to submit requested materials within 60 days shall cause the model to be withdrawn.

7.6 Complaints

7.6.1 Concerns during an inspection should be addressed to the inspector by the manufacturing representative.
7.6.2 If the manufacturing representative does not feel that the concern is properly addressed by the inspector a formal complaint should be addressed to the Applicant Representative for review and possible forwarding to the CTP. Complaints received by the CTP which are not from the manufacturer’s representative shall be forward to the Applicant Representative for action.

7.6.2 Complaints received by the CTP from the Applicant Representative shall be investigated utilizing the CTP corrective action process.

8.0 Records

8.1 Initial Application Documentation
a) Compliance Testing Program Application and Agreement
b) Ballistic Body Armor Model Application and CTP Body Armor Build Sheet
c) Declaration for Ballistic Body Armor
d) Compliance Testing Program Follow-up Agreement
e) Compliance Test Report
f) Label Specimen
g) Applicant Supplied Build Sheet and other construction documentation

8.2 Follow-up Inspection and Testing Documentation
a) Notification of Inspection
b) CTP Specimen Information Sheet
c) Follow-up on Site Report
d) Follow-up Testing Report(s)
e) Follow-up Inspection and Testing Report
f) correspondence concerning results and/or actions

9.0 Revision History

9.1 Initial release of this document occurred on 12 Oct 2010

9.2 Revision 1.1, document revised to more accurately reflect actual practices developed through application.

9.3 Revision 2.0, document revised throughout utilizing lessons learned during implementation of the previous revision. This revision also includes clarification on Production Hold and initial product inspections.
attachment 1: sample inspector report

ni j ctp inspection report

inspection id number: __________ date of inspection: __________ mar 2011

applicant:
manufacturer site:

<table>
<thead>
<tr>
<th>manufacturer contact (site of inspection)</th>
<th>applicant contact</th>
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<tbody>
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model inspection list:
(circle available models)

fit test laboratory:
test laboratory address 1
test laboratory address 2
test laboratory address 3
test lab poc 1
test lab poc 2
test lab poc 3

* none of the models listed above are available at the time of this inspection, minimum charge applies

arrived: __________ departed: __________ hours onsite: __________

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<tr>
<th>item</th>
<th>qty</th>
<th>cost</th>
<th>total</th>
</tr>
</thead>
<tbody>
<tr>
<td>single onsite inspection (minimum of 1)</td>
<td>1</td>
<td>$800</td>
<td>$800</td>
</tr>
<tr>
<td>time onsite (minimum of 1 hour)</td>
<td>hrs</td>
<td>$200</td>
<td></td>
</tr>
<tr>
<td>additional admin. fee (minimum of 1)</td>
<td></td>
<td>$100</td>
<td></td>
</tr>
<tr>
<td>shipping costs (estimate)</td>
<td></td>
<td>$75</td>
<td></td>
</tr>
<tr>
<td>phase 1 testing charge per armor model</td>
<td></td>
<td>$1,500</td>
<td></td>
</tr>
<tr>
<td>short notice scheduled inspection (less than 2 weeks)</td>
<td></td>
<td>$500</td>
<td></td>
</tr>
</tbody>
</table>

inspector

manufacturer’s contact

printed name:

signature:

in support of the national institute of justice compliance testing program (nj ctp), ulvs is authorized to provide this inspection report, associated testing and documentation to the nj ctp (njectc, 2277 research blvd., m/s 8j, rockville, md 20850)
Attachment 1: Sample Inspector Report (cont.)

**NIJ CTP Inspection Report (cont.)**

<table>
<thead>
<tr>
<th>Inspection ID Number:</th>
<th>Date of Inspection:</th>
<th>Mar 2011</th>
</tr>
</thead>
<tbody>
<tr>
<td>Applicant:</td>
<td>Manufacturer Site:</td>
<td></td>
</tr>
</tbody>
</table>

**Armor Model Inspected:**

<table>
<thead>
<tr>
<th>Question</th>
<th>Yes / No</th>
</tr>
</thead>
<tbody>
<tr>
<td>Is each sample (2) identified with a Serial and Lot Number?</td>
<td></td>
</tr>
<tr>
<td>Record the Serial and Lot Number from one sample (single front and back panel):</td>
<td></td>
</tr>
<tr>
<td>Manufacturer demonstrates traceability of one sample to ballistic material supplier's</td>
<td></td>
</tr>
<tr>
<td>Ballistic Material supplier documents indicate material and supplier's tracking information (lot):</td>
<td></td>
</tr>
<tr>
<td>Copy of supplier's document is collected for CTP (suppliers' documentation and build sheet):</td>
<td></td>
</tr>
</tbody>
</table>

**Notes:**

________________________________________________________________________
________________________________________________________________________
________________________________________________________________________

Page 19 of 34
Attachment 2: Inspector Guide

I. Scheduling
   a) Unannounced Inspection: Upon receipt of the pre-populated Inspection Report, the local field representative shall perform the inspection within the month identified in the upper right corner of the document.
   
   b) Scheduled Inspection: A set date for the inspection is arranged by the applicant with the CTP at least 10 business days in advance. The inspection must take place during the specified date.
   
   c) Expedited Scheduled Inspection: A set date for the inspection is arranged by the applicant with the CTP less than 10 business days in advance. These inspections are scheduled on case by case bases with the inspection body. The inspection must take place during the specified date. This option may incur additional charges to the Applicant.

II. Arrival
   a) arrive (unannounced if unscheduled) at the designated manufacturing facility during normal business hours with sufficient time to complete the follow-up inspection;
   
   b) request the Manufacturer Contact or alternate (as identified on the Inspection Report); or if not available contact the following (in order) until an alternate escort is identified;
      i. Applicant Representative (identified on Inspection Report)
      ii. Jamie Phillips, Conformity Assessment Coordinator, NLECTC-National, 301-519-5260
      iii. NLECTC-National, 800-248-2742
   
   c) Record Arrival time on Inspection Report Cover Page
   
   d) present credentials (including proof of US Person status if requested) to the manufacturer’s representative prior to entering restricted areas;
   
   e) direct questions and requests to the manufacturer’s representative;

III. Sampling
   a) with assistance from Manufacturer's Contact (or alternate), identify which models from list on Inspection Report are available to sample
      i. sample only models listed on the inspection sheet (do not select models not listed on the inspections sheet, even if they are available):
         ii. samples may have just been completed (not brought from storage)
         iii. samples may be completed while inspector is at facility
iv. samples do not require carrier unless they are “front opening” (the front is actually two panels instead of a single panel)
   b) on the Inspection Report, clearly circle models which will be sampled
   c) based on number of models to be sampled, copy as many inspection pages as necessary and complete the page identification (“Page __ of __”)
   d) Number only the Inspection Report pages (the Testing Sample Shipping Form should not be included with the Inspection Report when numbering)
   e) select two samples (four panels of soft armor if side opening, six panels w/carrier if front opening), of each model for testing (near end of the assembly process if possible);
   f) in the event that none of the models on the inspection sheet are available, this is indicated on the inspection sheet and the minimum charge is billed to the applicant.
      i. single inspection
      ii. one hour onsite
      iii. single admin fee

VI. Traceability
   a) an inspection entry must be completed for each armor model sampled (following cover page)
   b) clearly print the model identification
   c) inspect samples and determine if the samples are both clearly identified with both a serial and Lot Number
   d) from one sample (a complete sample includes both a front and rear panel), record the Serial # and Lot #
   e) beginning with the recorded serial and lot number, determine if the manufacturer can demonstrate traceability to the ballistic material used in that sample (can identify specific ballistic material used in sample and applicable supplier documentation such as a packing list)
   f) Determine if the ballistic material supplier’s documentation includes the suppliers material tracking information
   g) obtain a copy of supplier’s documentation for mailing to CTP (any pricing or payment information may be removed or made illegible)

V. Build Sheets (representing models collected for testing)
   a) request copies of current build sheets used for production armor
   b) these documents fall under ITAR or EAR and must be handled with care in order to stay in compliance with legal requirements (see paragraph VIII)
VI. Packaging
   a) utilizing manufacturer’s packaging materials, witness packaging of selected body armors
   b) address package to test laboratory identified on the Test Sample Shipping Form
   c) include Test Sample Shipping Form with samples
Note: Manufacturer may address and prepay for package shipment as long as the Inspector takes package with him to drop at mailing facility after leaving the manufacturing facility.

VII. Closing
   a) review completed inspection report with Manufacturer’s Contact and answer any questions (program questions may be referred to the NIJ CTP)
   b) Record
      i. time departed (“Departed”)
      ii. hours onsite (“Hours Onsite”)
   b) calculate (cost table on Inspection Report Cover Page)
      i. number of additional hours onsite if more than one
      ii. if manufacturer is not covering shipping costs, record “1”
      iii. number of additional armors sampled if more than one (admin costs)
      iv. number of additional armors sampled (testing costs)
      v. calculate total costs
   c) Inspector print and sign name at bottom of Inspection Cover Page
   d) Manufacturer’s Contact print and sign name at bottom of Inspection Cover Page
   e) provide copy of report to Manufacturer’s Contact
   f) transport samples to the appropriate company for shipment to the test laboratory;
   g) mail the body armor package (copy of inspection report, copy of current build sheets and copy of supplier’s documents) to **and only to:**
      NIJ Body Armor CTP – FIT
      2277 Research Blvd.
      M/S 8J
      Rockville, MD 20850

Sending construction information to any address other than the NIJ Body Armor CTP could be a violation of ITAR (International Traffic in Arms Regulations).
Figure 1, Mailing Summary

<table>
<thead>
<tr>
<th>Package Contents</th>
<th>Sent To</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Body Armor Samples</td>
<td></td>
</tr>
<tr>
<td>2. Test Sample Shipping Form</td>
<td>Test Laboratory</td>
</tr>
<tr>
<td>1. Evidence of traceability</td>
<td></td>
</tr>
<tr>
<td>2. manufacturer’s build sheets</td>
<td>CTP</td>
</tr>
<tr>
<td>3. <strong>copy</strong> of Test Sample Shipping Form</td>
<td></td>
</tr>
<tr>
<td>1. NIJ CTP Inspection Report</td>
<td>UL</td>
</tr>
</tbody>
</table>

VIII. ITAR/EAR

a) International Traffic and Arms Regulations (ITAR) controls exports and imports of defense articles and services. NIJ Standard 0101.06 Type III and IV Body Armor and certain related technical data must be handled in accordance with ITAR.

b) Export Administration Regulations (EAR) places export control on body armor (except those governed by the ITAR).

c) For the purposes of FIT inspections, compliance with both ITAR and EAR shall include the following:

i. All inspectors shall be either a US Citizen or an individual who has a valid Permanent Residency Status (also referred to as "green card") and are considered a "U.S. Person" for purposes of export control.

i. All inspectors shall carry one of the following sets of documents as proof of status during inspections:

1. government issued ID (drivers license) and Social Security Card or;
2. undamaged U.S. Passport (current or previously issued) or;
3. certified birth certificate issued by the city, county or state* or;
4. Consular Report of Birth Abroad or Certification of Birth or;
5. Naturalization Certificate or;
6. Certificate of Citizenship or;
7. a permanent resident card, commonly called a "green card."

*NOTE: A certified birth certificate has a registrar's raised, embossed, impressed or multicolored seal, registrar's signature, and the date the certificate was filed with the registrar's office, which must be within 1 year of your birth

ii. It is the responsibility of the applicant/manufacturer to mark any documentation restricted by the ITAR and EAR in accordance with applicable regulations.
iii. All ITAR/EAR restricted documents and information pertaining to body armor construction (build sheets and suppliers documentation) required for participation in this program shall be sent directly to the NIJ BA CTP only.

iv. FIT Test Reports indicate pass/fail (perforation) qualitative data only and does not include construction details.

v. Body armor samples obtained by an inspector shall be mailed directly to an NIJ Approved Ballistic Test Laboratory. After testing, the samples shall be mailed directly to the NIJ BA CTP.
Attachment 3:
Notification, Satisfactory Results for FIT

Date

Applicant Authorized Representative
Applicant Name
Applicant Address Line 1
Applicant Address Line 2

SUBJECT: Follow-up Inspection and Testing Number, Model Number, Manufacturing Location

Dear Applicant Authorized Representative:

On Inspection Date, the subject Follow-up Inspection took place and included the referenced model.

At this time:
1. Follow-up Testing has been complete with satisfactory results and;
2. CTP review of samples has been complete with no variations being found.

The subject model has completed this FIT cycle and no further action is required.

Tested samples shall be returned as soon as possible.

Please feel free to contact the NIJ BA CTP if you have any questions or would like to discuss this further.

Sincerely,

NIJ BA CTP Staff Member
Position
National Institute of Justice Body Armor Compliance Testing Program
NLECTC-National
Attachment 4:  
Notification, Single Perforation for FIT

Date

Applicant Authorized Representative
Applicant Name
Applicant Address Line 1
Applicant Address Line 2

SUBJECT: Follow-up Inspection and Testing Number, Model Number, Manufacturing Location

Dear Applicant Authorized Representative:

On Inspection Date, the subject Follow-up Inspection took place and included the referenced model.

At this time:
1. a single perforation (threat round) has occurred during FIT Phase 1 Test and;
2. NIJ BA CTP review of samples has been complete with no variations being found.

Phase 2 Follow-up Testing using the same threat round is now required. Please provide five complete body armor samples of the subject model body armor along with the attached Test Sample Shipping Form, Phase 2 to the test laboratory identified on the form. Carriers are not required unless the armor is front opening.

If the requested number of samples are not provided to the test laboratory within 30 days, the subject model may be withdrawn from the Compliant Product List and a NIJ Safety Notice published for Law Enforcement.

If an additional perforation occurs from a compliant round during Phase 2 Follow-up Testing, this shall be considered a FIT Testing Failure. Please see SOP Body Armor Follow-up Inspection and Testing, CTP 4-01, Diagram 4 for actions taken in the event of a FIT Test Failure.

Any samples which experience abnormalities during FIT are held indefinitely by the NIJ BA CTP. However, the samples will be available for a limited time at our facility in Rockville, MD if you would like to inspect them.

Please feel free to contact the NIJ BA CTP if you have any questions or would like to discuss this further.

Sincerely,

NIJ BA CTP Staff Member
Position
National Institute of Justice Body Armor Compliance Testing Program
NLECTC-National
Attachment 5: Notification, Construction Variation for FIT

Date

Applicant Authorized Representative
Applicant Name
Applicant Address Line 1
Applicant Address Line 2

SUBJECT: Follow-up Inspection and Testing Number, Model Number, Manufacturing Location

Dear Applicant Authorized Representative:

On Inspection Date, the subject Follow-up Inspection took place and included the referenced model.

At this time:
1. Follow-up Testing has been complete with satisfactory results and;
2. CTP review of samples has been completed and the following construction variations have been found:
   a. 
   b. 

[ ] These construction variations have been identified as minor because they do not appear to impact ballistic performance. At this time, please submit revised construction documentation to the CTP accounting for the construction variation or a plan for addressing the variation on fielded pieces of armor.

[ ] These construction variations have been identified as major because they may have an impact on ballistic performance. This is considered a Construction Review Failure. Please:
   1. immediately stop production of this model at all manufacturing locations (not just the location at which the subject inspection occurred);
   2. provide the CTP with the results of your review identifying:
      a. the root cause(s)
      b. all affected body armors (serial number, lot number, date of manufacture, manufacturing location, end user contact information)
      c. corrective action(s)
   3. Provide copies of the published NIJ Advisory Notice to all end users of subject body armor.

If a response is not received by the CTP within 30 days, the subject model may be withdrawn from the Compliant Product List and a NIJ Non-compliance Notice published for Law Enforcement.

Please feel free to contact the NIJ BA CTP if you have any questions or would like to discuss this further.

Sincerely,

NIJ BA CTP Staff Member
Position
National Institute of Justice Body Armor Compliance Testing Program
NLECTC-National
Attachment 6:

Notification; Multiple Perforations, Construction Review Satisfactory

Date

Applicant Authorized Representative
Applicant Name
Applicant Address Line 1
Applicant Address Line 2

SUBJECT: Follow-up Inspection and Testing, Applicant Model Name

Dear Applicant Authorized Representative:

On testing date(s), Follow-up Testing was performed on the subject body armor model. The associated test report(s) is(are) included with this letter. During this testing, the armor experienced multiple perforations from a single type of threat rounds that were determined to be a “Fair Shot/Hit” and traveling at an acceptable velocity for this test. This constitutes a Testing Failure of the National Institute of Justice Body Armor Compliance Testing Follow-up Inspection and Testing (NIJ BA CTP FIT) Program.

Following testing, a construction review was completed by the National Institute of Justice Body Armor Compliance Testing Program (NIJ BA CTP). The review of samples has been complete with no variations being found.

At this time please complete the following actions:
1. immediately stop production of this model at all manufacturing locations (not just the location at which the subject inspection occurred);
2. provide the CTP with the results of your review identifying:
   a. the root cause(s)
   b. all affected body armors (serial number, lot number, date of manufacture, manufacturing location, end user contact information)
   c. corrective action(s)
3. Provide copies of the published NIJ Advisory Notice to all end users of subject body armor.

In the event that these actions are not completed within 5 business days (Date), the NIJ BA CTP shall:
1. issue an NIJ Safety Notice to Law Enforcement and Correctional Agencies
2. withdraw the entire model from the Compliant Product List

These actions may also be taken if it is determined by NIJ to be in the best interests of Law Enforcement and Correctional Officers.

Any samples which experience abnormalities during FIT are held indefinitely by the NIJ BA CTP. However, the samples will be available for a limited time at our facility in Rockville, MD if you would like to inspect them.

Please feel free to contact the NIJ BA CTP if you have any questions or would like to discuss this further (with myself or the CTP).

Sincerely,

NIJ BA CTP Staff Member
Position
National Institute of Justice Body Armor Compliance Testing Program
NLECTC-National
Diagram 1

Follow-up Inspection and Testing Process

- CTP prompts follow-up inspection and testing
- Inspection body performs inspection activities

Follow-up Testing, Phase 1

- None
- Single
- >1

Phase 1 Perforation?

- Yes
- No

Phase 2 Perforation?

Construction Review (Diagram 2)

Testing Failure (Diagram 4)
Construction Review

Variation (Minor)

Failure

Construction Review?

Pass

Construction Review
Minor Variation
Diagram 3

Follow-up Requirements Have Been Met

Construction Review
Failure
Diagram 5
Diagram 3

Construction Review
Minor Variation

- Applicant Notification is issued
- NIJ requires applicant to submit revised/updated documentation

Applicant complies with requirements within 30 days?

No

Entire Model is Suspended:
- Applicant Notification is issued
- NIJ Advisory Notice is issued to Law Enforcement
- NIJ suspends model from CPL

Yes

Yes

Applicant complies with requirements within 30 additional days?

No

Follow-up Requirements Have Been Met

Entire Model is Withdrawn:
- Applicant Notification is issued
- NIJ Non-compliance Notice is issued to Law Enforcement
- NIJ Withdraws Model from CPL
Diagram 4

Testing Failure

Entire Model is Suspended:
- NIJ Advisory Notice issued to Law Enforcement
- Applicant Notification issued instructing applicant to:
  1. Provide NIJ Advisory Notice to past and current purchasers of the model
  2. Perform root cause analysis
  3. Identify all affected body armors (serial number, lot number, date of manufacture, manufacturing location)
- NIJ suspends model from CPL

Yes
Applicant complies with requirements within 5 business days?

No

Affected Model Armor is Withdrawn:
- Applicant Notification issued
- NIJ Safety Notice issued to Law Enforcement
- NIJ Withdraws affected Model Armor from CPL

Entire Model is Withdrawn:
- Applicant Notification issued
- NIJ Safety Notice issued to Law Enforcement
- NIJ Withdraws Model from CPL
Diagram 5

Construction Review Failure

Entire Model is Suspended:
- Applicant Notification issued instructing applicant to:
  1. Perform root cause analysis
  2. Identify all affected body armors (serial number, lot number, date of manufacture, manufacturing location)
  3. Provide an acceptable corrective action which may include a complete or partial recall and/or full type testing and evaluation of new and distinct model.
- NIJ Advisory Notice is issued to Law Enforcement
- NIJ suspends model from CPL

Yes

New Model Evaluation

Evaluation Pass?

Yes

NIJ Issues Attestation of compliance

Applicant re-labels affected field-issued armor with new model number

No

Entire Model is Withdrawn:
- Applicant Notification is issued
- NIJ Non-compliance Notice issued to Law Enforcement
- NIJ Withdraws Model from CPL

No

Applicant complies with requirements within 30 days?
Bibliography

[1] ISO 9000:—1), Quality management systems — Fundamentals and vocabulary
[4] ISO/IEC 17020, General criteria for the operation of various types of bodies performing inspection
[6] Information and documents on laboratory accreditation can be found on the ILAC (International Laboratory Accreditation Cooperation): www.ilac.org