

**Instructions:** Form must be completed by the Special Inspection Agency.**FORM E**

Manufacturer's Name: \_\_\_\_\_ Manufacturer's number: \_\_\_\_\_ Date: \_\_\_\_\_

Plant Address: \_\_\_\_\_

Manufacturer's Representative Name: \_\_\_\_\_ Title: \_\_\_\_\_

Manufacturer's Representative E-Mail Address: \_\_\_\_\_

Phone Number: \_\_\_\_\_

**INSPECTION AGENCY**

**AGENCY'S NUMBER:** \_\_\_\_\_ **TIME IN:** \_\_\_\_\_ **TIME OUT:** \_\_\_\_\_

Inspector Name: \_\_\_\_\_ Phone Number: \_\_\_\_\_

E-Mail Address: \_\_\_\_\_

**COMMENTS PERTAINING TO THIS AUDIT**

---

---

---

---

---

---

---

**INSPECTOR RECOMMENDATIONS**

- ☐ NEW CERTIFICATION AS CERTIFIED FABRICATOR OF \_\_\_\_\_
- ☐ RENEWAL OF CERTIFICATION
- ☐ APPROVED UPON CORRECTION OF FINDINGS
- ☐ DISAPPROVAL

**SPECIAL INSPECTOR SIGNATURE:** \_\_\_\_\_ **DATE:** \_\_\_\_\_

**COMPLETE, SIGN, SEAL & DATE THIS FORM AND MAIL OR EMAIL TO THE CITY OF HOUSTON:**

Mr. Maher Khansa, P.E.

City of Houston-Building Code Enforcement-CACD, 1002 Washington Ave., Houston, Texas 77002

Email: maher.khansa@houstontx.gov

● Symbol intended for office use only

## AUDIT OF FABRICATION PRACTICES (COOLER/FREEZER INSULATED PANELS)

Manufacturer's Name: \_\_\_\_\_ Manufacturer's Number: \_\_\_\_\_ Date: \_\_\_\_\_

A	GENERAL REQUIREMENTS	COMPLIANCE	COMMENTS
A-1	Is the Quality Control Manual fully documented and up to date?	YES NO	
A-2	Is the Quality Control Manual reviewed at least annually? Provide last review date: _____	YES NO	
A-3	Are there any revisions to the Quality Control Manual? Provide latest revision date: _____	YES NO	
A-4	Are there any key personnel changes since last inspection?	YES NO	
A-5	Are the annual inspections performed as required? Provide last inspection date: _____	YES NO	
B	ENGINEERING	COMPLIANCE	COMMENTS
B-1	The manufacturer can demonstrate that there is either an in-house or an outside licensed engineer to perform necessary designs and/or to consult on technical questions.	YES NO	
B-2	The manufacturer can demonstrate that he has an in-house or outside Special Process Consultant for each process performed (such as, formulation and treatment of polyurethane foam, and for testing the structural capabilities using different foam formulations, facings and thickness, etc.) ●	YES NO	
B-3	The contract documents are reviewed to assure that all materials and processes are specified or indicated on the drawings or specifications.	YES NO	
B-4	The manufacturer reviews the contract documents and structural/architectural drawings for correctness.	YES NO	
B-5	The manufacturer has personnel with adequate knowledge to provide answers to technical questions.	YES NO	
B-6	The manufacturer has personnel with adequate knowledge relating to material specification problems.	YES NO	
C	DRAFTING	COMPLIANCE	COMMENTS
C-1	Shop drawings are properly prepared.	YES NO	
C-2	The manufacturer has personnel capable of supervising, evaluating, and coordinating shop drawing preparation and all shop drawings are reviewed for correctness.	YES NO	
C-3	The manufacturer has in-house capability of providing special details for the plant to solve fabrication problems.	YES NO	
C-4	The shop drawings will show all materials necessary to fabricate panels. ●	YES NO	
D	DRAWING CONTROL	COMPLIANCE	COMMENTS
D-1	The manufacturer can verify control of design drawings as follows: <input type="checkbox"/> receipt <input type="checkbox"/> on file <input type="checkbox"/> revisions	YES NO	
D-2	The manufacturer can verify control of specifications and addendums.	YES NO	
D-3	The manufacturer can demonstrate control of shop drawings: <input type="checkbox"/> receipt <input type="checkbox"/> on file	YES NO	
D-4	The Quality Control Manual traces each phase from drawing preparation, to shop drawing, receipt, submittals for approval, approval, resubmittals and date sent to shop/plant for fabrication.	YES NO	
D-5	The manufacturer can demonstrate control of revisions to shop drawings.	YES NO	

## AUDIT OF FABRICATION PRACTICES (COOLER/FREEZER INSULATED PANELS)

Manufacturer's Name: \_\_\_\_\_ Manufacturer's Number: \_\_\_\_\_ Date: \_\_\_\_\_

D-6	The manufacturer can demonstrate control of obsolete shop drawings.	YES NO	
D-7	The drawing control system used is the one described in the Quality Control Manual.	YES NO	
<b>E</b>	<b>WORK ORDER – JOB CONTROL</b>	<b>COMPLIANCE</b>	<b>COMMENTS</b>
E-1	The manufacturer has established a job control number/identification system for all work accepted.	YES NO	
E-2	All correspondence received is marked with its job identification mark.	YES NO	
E-3	Job correspondence is filed with the job files for that work.	YES NO	
E-4	All correspondence received is: <input type="checkbox"/> stamped received <input type="checkbox"/> dated & initialed	YES NO	
<b>F</b>	<b>MATERIAL PROCUREMENT</b>	<b>COMPLIANCE</b>	<b>COMMENTS</b>
F-1	Materials are procured by a purchase order or some other type of form that provides verification and documentation of the order.	YES NO	
F-2	All materials are ordered or procured to acceptable standards and/or specifications.	YES NO	
F-3	The material specifications are indicated/documented on the purchase order/form used for materials procurement.	YES NO	
F-4	The procurement document states how the material shall be marked/identified.	YES NO	
F-5	The manufacturer requires suppliers to furnish material certification reports on the procurement document.	YES NO	
F-6	The procurement documents specify that material test reports shall accompany material/subassembly delivery to the manufacturer's facility.	YES NO	
F-7	The manufacturer has documented the review of the quality status of suppliers on a regular scheduled or random basis.	YES NO	
F-8	The QA/QC manager has visited and/or reviewed subcontractors' manufacturing and/or Quality Control System operations on a random basis where applicable.	YES NO	
<b>G</b>	<b>RECEIVING MATERIAL</b>	<b>COMPLIANCE</b>	<b>COMMENTS</b>
G-1	The manufacturer is using a formal method for receiving materials/subassemblies.	YES NO	
G-2	The manufacturer inspects all incoming materials arriving at the facility.	YES NO	
G-3	The manufacturer has a foam identification system so as to assure the correct use of rated and non-rated foam. ●	YES NO	
G-4	Acceptance tolerances are available at the receiving inspection station.	YES NO	
G-5	Receiving inspections are documented.	YES NO	
G-6	The receiving inspector understand the company system for: <input type="checkbox"/> receiving materials <input type="checkbox"/> receiving subassemblies <input type="checkbox"/> acceptance/rejection of nonconforming materials and/or subassemblies <input type="checkbox"/> means of handling correctable nonconformities observed during the receiving inspection	YES NO	
G-7	The material identification process utilized provides for material traceability to the final product.	YES NO	

## AUDIT OF FABRICATION PRACTICES (COOLER/FREEZER INSULATED PANELS)

Manufacturer's Name: \_\_\_\_\_ Manufacturer's Number: \_\_\_\_\_ Date: \_\_\_\_\_

G-8	Receiving inspector confirms: <input type="checkbox"/> quantity of materials <input type="checkbox"/> type of material <input type="checkbox"/> thickness of material <input type="checkbox"/> length of material <input type="checkbox"/> manufacturer of material <input type="checkbox"/> specification of material	YES   NO	
<b>H</b>	<b>HANDLING &amp; STORAGE EQUIPMENT, FACILITIES AND PROCEDURES</b>	<b>COMPLIANCE</b>	<b>COMMENTS</b>
H-1	The manufacturer has adequate facilities, equipment and illustrated drawings or instructions available to indicate the proper way to: <input type="checkbox"/> handle materials in the yard <input type="checkbox"/> handle materials in the plant <input type="checkbox"/> store materials/subassemblies <input type="checkbox"/> prevent material/subassembly deterioration <input type="checkbox"/> provide correct storage for finished panels ● <input type="checkbox"/> handle finished panels ●	YES   NO	
H-2	The manufacturer is utilizing an adequate control process for stocked/stored materials.	YES   NO	
<b>I</b>	<b>NORMAL AND SPECIAL PROCESSES CONTROL</b>	<b>COMPLIANCE</b>	<b>COMMENTS</b>
I-1	The manufacturer is controlling normal and special production/work processes.	YES   NO	
I-2	Acceptance standards are readily available or posted near work stations for review by production personnel and inspection personnel.	YES   NO	
I-3	Sufficient work instructions are available to production personnel at each work station.	YES   NO	
I-4	Two tests have been run per week to assure that satisfactory bonding is taking place between panel facings and core. ●	YES   NO	
I-5	All inspections are documented.	YES   NO	
I-6	The manufacturer can demonstrate the system utilized for: <input type="checkbox"/> minor repairs <input type="checkbox"/> major repairs <input type="checkbox"/> documentation of re-inspection of repairs	YES   NO	
I-7	Foam tests are being run on a periodical basis as set forth in the Quality Control Manual. ●	YES   NO	
I-8	The manufacturer can demonstrate system for rejection and disposal of non-repairable panels. ●	YES   NO	
I-9	The manufacturer can demonstrate that surveillance of stored panels is performed on a routine scheduled basis. ●	YES   NO	
I-10	Manufactured products are stored on a hard compacted well drained surface.	YES   NO	
<b>J</b>	<b>EQUIPMENT CONTROL &amp; MAINTENANCE</b>	<b>COMPLIANCE</b>	<b>COMMENTS</b>
J-1	The manufacturer can demonstrate that each piece of equipment in the plant: <input type="checkbox"/> is acceptable or not acceptable for use <input type="checkbox"/> is documented on the equipment <input type="checkbox"/> is on a maintenance program <input type="checkbox"/> is listed on a maintenance log <input type="checkbox"/> has been calibrated within an acceptable established time frame where applicable <input type="checkbox"/> is listed, when appropriate, in a calibration log when actively utilized	YES   NO	

## AUDIT OF FABRICATION PRACTICES (COOLER/FREEZER INSULATED PANELS)

Manufacturer's Name: \_\_\_\_\_ Manufacturer's Number: \_\_\_\_\_ Date: \_\_\_\_\_

K	AUDITS/REVIEWS OF THE QUALITY PROGRAM	COMPLIANCE	COMMENTS
K-1	Verification was presented to demonstrate that management has reviewed the Quality Control System within the last twelve (12) months.	YES NO	
K-2	Management has taken steps to measure the effectiveness of the quality program.	YES NO	
K-3	The QA/QC manager has shown documentation that each Quality Control Manual was reviewed to assure it is complete and up to date within the last six (6) months.	YES NO	
K-4	The fabricator has established a record retention system and is retaining job records for a minimum of two (2) years after construction completion.	YES NO	
L	QUALITY CONTROL PERSONNEL/INSPECTORS	COMPLIANCE	COMMENTS
L-1	Quality control inspectors were available in the plant at the time of this inspection excluding QC manager (applicable when appropriate).	YES NO	
L-2	The quality control personnel have immediate access to the specifications, addendums to specifications, or to the engineer for answering key questions.	YES NO	
L-3	The quality control personnel have immediate access to the technical library and other pertinent information.	YES NO	
L-4	The quality control personnel inform line production supervisory personnel when nonconforming work is observed.	YES NO	
L-5	The quality control personnel verify equipment is checked for acceptable performance.	YES NO	
L-6	The quality control personnel verify that production equipment is calibrated.	YES NO	
L-7	The quality control personnel can verify documentation of equipment maintenance and repairs.	YES NO	
L-8	Non-conforming tools and equipment are red tagged to prevent their use in production.	YES NO	
L-9	The quality control personnel are equipped to properly perform assigned tasks.	YES NO	
L-10	The quality control personnel understand their responsibility to management.	YES NO	
L-11	The quality control personnel have sufficient authority to perform their assignments.	YES NO	
M	ADDITIONAL COMMENTS	COMPLIANCE	COMMENTS
It is evident by this inspection and the review of the Quality Control System and its operation that at this time:			
M-1	All employees are aware of the Quality Control System.	YES NO	
M-2	Employees are familiar with the Quality Control System as it may pertain to them.	YES NO	
M-3	Management has taken an active role in the Quality Control System program.	YES NO	
M-4	The following key functions are performed by personnel fully aware of and acquainted with the Quality Control System: <div style="display: flex; flex-wrap: wrap;"> <div style="width: 50%;"><input type="checkbox"/> sales</div> <div style="width: 50%;"><input type="checkbox"/> purchasing</div> <div style="width: 50%;"><input type="checkbox"/> other _____</div> <div style="width: 50%;"><input type="checkbox"/> engineering</div> <div style="width: 50%;"><input type="checkbox"/> production</div> <div style="width: 50%;"><input type="checkbox"/> drafting</div> <div style="width: 50%;"><input type="checkbox"/> quality control</div> </div>	YES NO	
M-5	The manufacturer has completely separated production and QA/QC activities.	YES NO	

### AUDIT OF FABRICATION PRACTICES (COOLER/FREEZER INSULATED PANELS)

Manufacturer's Name: \_\_\_\_\_ Manufacturer's Number: \_\_\_\_\_ Date: \_\_\_\_\_

M-6	The manufacturer QA/QC program is functioning in each of the key areas without significant omissions, inconsistencies and/or non-compliance with the established program.	YES	NO	
M-7	The manufacturer appears to have sufficient procedure/work instructions to assure all products are fabricated to conform to the contract documents and code requirements.	YES	NO	
M-8	The manufacturer has an adequately documented Quality Assurance Program.	YES	NO	

SPECIAL INSPECTOR NAME: \_\_\_\_\_

(ENGINEER'S SEAL)

SPECIAL INSPECTOR SIGNATURE: \_\_\_\_\_

DATE: \_\_\_\_\_