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**ATCA GUIDANCE MANUAL**

**FOR CARB CERTIFICATION**

**(November 2008)**

**APPROVED CERTIFIER TPC-12**



# ATCA Guidance Manual

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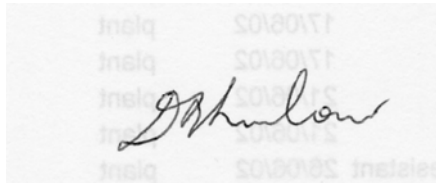
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## **1.1 ATCA Chairman's Statement**

The US market is of considerable importance to many AWPA members and to participate effectively they require access to CARB certification. The CARB regulations ensure that all composite wood products sold in California meet stringent formaldehyde emission targets.

The ATCA Executive therefore views the role of being a CARB third party certifier as an important and appropriate activity for ATCA.



Signed:  
**Mr David Thurlow - Chairman**

20 June 2008

## 1.1 Revision Record

<b>Current Revision</b>	<b>Revision Date</b>	<b>Section</b>	<b>Details of Revision</b>
1 2	June 2008 November 2008	ALL all	Issued for use Updated to include hardwood plywood and incorporate other changes

## 1.2 General

The Airborne Toxic Control Measures (ATCM) have been introduced by the Californian Environmental Protection Agency with the aim of progressively reducing formaldehyde and other emissions from products sold in California.

## 1.3 Objectives

ATCA is approved by California Air Resources Board as a Third Party Certifier (TPC) for the purpose of providing regulation to composite wood manufacturers in this Australian and SE Asian region.

The specific objectives of the ATCA TPC scheme are:

- i) To assist participants in the Scheme to produce particleboard and MDF to CARB standards, and to provide third party endorsement of this fact.
- ii) To accurately test and certify composite wood product manufacturers from this region to the satisfaction of CARB.

## 1.5 Structure of CARB Certification Scheme

The Scheme will consist of the following major elements:

- i) Each participating plant will comply with certain rules in regard to personnel, documentation, process control, in-plant testing and other activities. The rules are described in this Manual.
- ii) ATCA will regularly inspect these aspects of the plant performance and also conduct independent testing of the plant's products. Product testing will be both on samples submitted by the plants, and on random samples selected by ATCA at the plants.
- iii) If plants comply with these rules, ATCA will certify them to produce products under the Certification Scheme, and use certification documents accordingly. The plants then become known as licensees of ATCA
- iv) ATCA will have its activities and documentation audited by CARB to ensure compliance with CARB rules governing TPCs.

## 1.6 ATCA Quality Council

The ATCA Quality Council will oversee the operation of the Certification Scheme, and will comprise representatives from various sectors to safeguard impartiality. It will act independently of other bodies in regard to all aspects of the ATCA Certification Scheme.

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The Constitution and Rules of Procedures of the ATCA Quality Council are available on request.

## 1.7 **Products and Standards Applicable under the Scheme**

1.7.1 Products covered under the CARB Certification Scheme are hardwood plywood, Fibreboard and Particleboard manufactured in accordance with recognized national or international standards and which have formaldehyde emissions which meet the requirements of CARB.

1.7.2 The test methods to be used for certification testing and evaluation and the applicable CARB limits are as shown in the table below.

<b>PRODUCT</b>	<b>STANDARDS</b>
MDF/PB/Plywood	ASTM E1333: Determining Formaldehyde Concentrations in Air and Emission Rates from Wood Products Using a Large Chamber
MDF/PB/Plywood	ASTM D 6007: Determining Formaldehyde Concentrations in Air from Wood Products Using a Small Scale Chamber
MDF/PB	AS/NZS 4266.16 2004 (equivalent to JIS A 1460) Determination of Formaldehyde Emission – Desiccator Method
Hardwood Plywood	AS/NZS 2098.11 Determination of Formaldehyde Emission for Plywood
CARB Phase 1 limits – 01/01/2009	MDF – 0.21 ppm Particleboard – 0.18 ppm (ASTM E 1333)
CARB Phase 11 limits – 01/01/2011	MDF – 0.11 ppm Particleboard – 0.09 ppm (ASTM E 1333)

## 1.8 **Definitions**

The following definitions apply to terms used in this manual:

‘ACTM’ – Airborne Toxic Control Measures as regulated in California

‘AS/NZS’ – Joint Australian and New Zealand Standard.

‘ASTM’ – American Society for Testing Materials which issues standards in the USA

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‘AWPA’ – the Australian Wood Panels Association Incorporated, an association of wood panel manufacturers in Australia producing Particleboard and Fibreboard products.

‘ATCAQC’ – The AWPA Test Centre Association Quality Council, the independent governing board of the ATCA Certification Scheme.

‘CARB’ – the Californian Air Resources Board

‘Certificate’ – formal document issued by the certification body to indicate that an applicant has complied with all the certification body’s rules.

‘Certification Marks’ – a visual design of a registered trade mark denoting conformity, which the certification body authorises a licensee to use on its product or promotional material.

‘CWP’ – composite wood products comprising hardwood plywood, particleboard and MDF.

‘Excursion Limit’ – a modified QCL which allows for testing and process variations, is slightly higher than the QCL and which is the absolute limit for a single test.

‘ISO 17025’ – Requirements for Competence of Laboratories

‘ISO/IEC Guide 65’ – International Standard: General Requirements for Bodies operating Product Certification Systems 1996.

‘JAS-ANZ’ – the Joint Accreditation System of Australia and New Zealand, having the authority by Australian Government legislation to accredit other bodies to international standards.

‘Licensee’ – a manufacturing plant which has been assessed as complying with the rules of the scheme and has entered into a certification contract with ATCA.

‘Members of the scheme’ or ‘scheme members’ – licensees and those plants which have applied for certification.

‘NATA’ – The National Association of Testing Authorities, Australia, an independent laboratory accreditation body.

‘Quality Control Limit’ (QCL) – the desiccator value as tested on newly manufactured product which is the equivalent to the primary standard limit value, as determined by a correlation.

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‘Shipping QCL’ – the desiccator value obtained on panels prior to shipment which is the equivalent to the primary standard limit value, as determined by a correlation.

‘TPC’ – Third Party Certifier as approved by CARB. A "Third Party Certifier" is an organization or entity approved by the Executive Officer that verifies the accuracy of the emission test procedures and facilities used by manufacturers to conduct formaldehyde emission tests, monitors manufacturer quality assurance programs, and provides independent audits and inspections.

## 2. **IN-PLANT QUALITY CONTROL REQUIREMENTS**

### 2.1 **Pre-qualification Requirements**

In order for a plant to be considered for Certification, it must satisfy the following conditions:

- a) be a genuine manufacturer of composite wood products located in Australia or SE Asia. A fee as determined by ATCA must be paid.
- b) Provide documents which satisfy ATCA that they are capable of meeting the rules in this manual.
- c) Allow the necessary access and co-operation to ATCA representatives to enable monitoring of the level of compliance with the Guidance Manual. The plant must provide indemnification of ATCA against claims arising from product failures or failure to perform as represented.

### 2.2 **Plant Personnel**

#### 2.2.1 **Quality Control Manager**

Each plant shall appoint a Quality Control Manager who takes responsibility for formaldehyde emission quality related functions. This person must report to the plant manager and have the following duties in relation to the CARB Certification Scheme:

- i) Production and maintenance of a Quality Control manual
- ii) Review and approve all formaldehyde test reports conducted on the plant's production
- iii) Clearance for dispatch of all CARB products and maintain all export documentation in relation to CARB products
- iv) Provide a monthly report to the TPC which contains full details of the month's CARB production and test results
- v) Collection, packaging and shipping of all test samples to the procedures specified in the QC manual
- vi) Have adequate experience and training to fulfill this role and train appropriate quality control staff who may perform formaldehyde emission tests.
- vii) Communicate any changes to the process or test failures to the TPC.

#### 2.2.2 **Laboratory Test Staff**

If the QC testing is done on site, QC personnel will be required to have sufficient training and expertise to be able to perform the formaldehyde emission test. They will be checked annually by being required to determine the formaldehyde

content of 4 known samples. If the results deviate by more than 7.5% from the actual concentration, they will be required to undergo more rigorous scrutiny.

## **2.3 Process Requirements**

2.3.1 In order to satisfy ATCA regarding the consistency of formaldehyde emissions produced from a plant, the plant must have in place a system that ensures consistency of raw materials and key plant operational parameters, supplemented by regular testing.

### **2.3.2 Control of Raw Materials**

The plants must establish specifications with their raw material suppliers and shall have procedures which give confidence that purchased raw materials conform to these specifications. Testing and inspection may be performed by the supplier or the plant, depending on contractually agreed conditions. Test methods, frequencies and records of test results must be available.

Sheets 1 and 2 of the Process Control Requirements show the parameters expected to be specified and controlled in purchased raw materials for both Particleboard and MDF production.

### **2.3.3 Process to be Controlled – Particleboard**

For particleboard the following are considered the major processes which may affect the formaldehyde emission:

MILLING  
DRYING  
CLASSIFYING  
ADHESIVE FORMULATION  
BLENDING  
SPREADING  
PRESS

See the Process Control Requirements for the minimum requirements for each of the above processes.

It is expected that each of the above processes would exhibit a documented process control strategy and that log sheets and charts would be available to verify this. A documented mechanism should be in place to deal with out-of-specification product from each of the processes.

Normally, control would be via a combination of on-line instrumentation and operator tests and checks.

## **2.3.4 Processes to be Controlled – MDF**

The following are considered to be the major processes in MDF production which may affect the formaldehyde emission:

REFINING  
ADHESIVE FORMULATION  
RESIN & WAX ADDITION  
DRYING  
FORMING  
PRESSING

See the Process Control Requirements for the minimum control expected in each of the above processes. Each of the above processes should exhibit a process control description and strategy, and log sheets and charts should be available to verify this. A documented mechanism should be in place to deal with out-of-specification product from each of the above processes. In some plants there may be additional processes which if present would be included. These would be processes such as chemical addition (e.g. urea and other formaldehyde reducers).

## **2.3.5 Processes to be controlled – Hardwood Plywood**

The raw materials and manufacturing processes which should be controlled by producers of hardwood plywood are listed on pages 17 and 18 of this manual.

It is expected that each of these processes would exhibit a documented process control strategy and that log sheets and charts would be available to verify this. A documented mechanism should be in place to deal with out-of-specification product from each of the processes.

## **2.4 In Plant Documentation & Product Testing**

### **2.4.1 Quality Control Manual**

The plant Quality Control Manual shall contain at least the following information:

- Organizational structure of the quality control department
- Sampling procedures
- Method of handling samples
- Frequency of QC testing
- Procedures to identify where changes in formaldehyde emission could occur eg due to changes in resin type etc.
- Additional and requalification testing procedures
- Average percent of resin and press time or press speed for each product type

## 2.4.2 Monthly Report

The plant shall compile a monthly report which contains the following information:

- The type, quantity and batch numbers of CARB product shipped during the month
- The QCL and Excursion limit applying to the product type
- Press times and resin quantities applicable to each batch
- Results of QC tests and any retests
- Details of any test failures, including requalifications

## 2.4.3 QC Testing programme

Each plant will conduct or have conducted on its behalf, small scale formaldehyde quality control testing. Where the testing is performed by an outside laboratory, the requirement is that the organization is accredited to ISO 17025. Manufacturers must conduct routine small scale quality control tests at least once per shift (a shift may be 8 or 12 hours).

Where the plant is able to demonstrate consistency of operation, ATCA may at its discretion, reduce the required test frequency to one test per 48h production period. This relaxation is to be put in writing by ATCA.

In addition to performing the nominated QC test program regular test samples must be forwarded to ATCA for independent testing. More details of this program are described in Section 3 of this manual.

## 2.4.4 Equipment Calibration

If the plant performs its own small scale formaldehyde test, the plant shall have a procedure describing the calibration system and the necessary calibration standards, instructions and methods to enable it to keep its test and measurement equipment accurate. The calibrations may be performed internally or by sub-contractors.

A schedule of calibrations must be available.

There are two classes of calibration normally conducted by the plant:

- i) Major calibrations performed using outside bodies, usually at intervals of 1 year or greater. However if the plant possesses the necessary reference standards (eg gauge blocks, reference thermometers etc) some of these major calibrations may be performed internally.

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- ii) regular checks performed by plant staff, using standard weights, calibrated volumes etc.

Equipment to be calibrated shall include the following, with recommended check and re-calibration period.

<u>Equipment Type</u>	<u>Check Interval</u>	<u>Calibration Interval</u>
Balances/Weigh Scales, Moisture Content Devices	6 monthly	2 years
Conditioning Room Environments	6 monthly	
Spectrophotometers	1 month	2years
Water baths, Ovens	6 monthly	
Timers	6 monthly	

Reference standards used to calibrate the above equipment should be calibrated by an independent body which has traceability to national and international standards.

## 2.5 Marking of Product

Each pack of particleboard and MDF produced in accordance with CARB regulations shall be appropriately labelled. An instruction to describe the labelling system should be available. All packs will be labelled with the following information as a minimum:

Product Type

Product Size

Product Thickness

Boards per Pack

Pack No.

Safety and Handling Instructions

Manufacturers Name and Address

California 93120 Phase 1/2 compliant for formaldehyde, certified by ATCA, TPC-12

CARB certified plant numbers must be applied as described in Section 4 of this manual.

## **2.6 Notification of Changes**

A licensed plant shall immediately notify ATCA of the following:

- a) changes its key quality control staff;
- b) changes to premises and scope of activities;
- c) Significant raw materials modifications eg resins and furnish, equipment, facilities, processes and work methods;
- d) Policies and procedures impacting on the Certification Scheme;
- e) Development of new products for supply to California;
- f) Formaldehyde emission results which do not comply to CARB requirements

If ATCA considers the changes will significantly affect certification, ATCA will determine whether further inspection/inspections are necessary. In each case, the plant cannot release certified product resulting from these changes, until ATCA has advised the plant accordingly.

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### ATCA CARB CERTIFICATION – PROCESS CONTROL REQUIREMENTS

<b>PRODUCT TYPE:</b> PARTICLEBOARD / MDF <b>PROCESS AREA:</b> PURCHASED RAW MATERIALS				SHEET NO: 2
PROCESS/MATERIAL OPERATION	PARAMETERS CONTROLLED	TESTS PERFORMED	MINIMUM FREQUENCY	EXAMPLE TOLERANCES & COMMENTS (if applicable)
RESIN	SOLIDS CONTENT  VISCOSITY  SPECIFIC GRAVITY  PH		EACH BATCH  EACH BATCH  EACH BATCH  EACH BATCH	$\pm 2 \%$  SPECS DEPEND ON WOOD SPECIES AND DRYING AND PRESSING TECHNIQUES  $\pm 0.5 \%$

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### ATCA CARB CERTIFICATION – PROCESS CONTROL REQUIREMENTS

**PRODUCT TYPE:** PARTICLEBOARD

SHEET NO: 4

**PROCESS AREA:** DRYING AND CLASSIFYING AND LIQUID ADDITIONS

PROCESS/MATERIAL OPERATION	PARAMETERS CONTROLLED	TESTS PERFORMED	MINIMUM FREQUENCY	EXAMPLE TOLERANCES & COMMENTS (if applicable)
FLAKE DRYING	MOISTURE	MOISTURE ANALYSIS	1 HOUR	< 5 % SURFACE & CORE
FLAKE CLASSIFYING OR WIND SIFTING	FLAKE GEOMETRY	SIEVE ANALYSIS	1 SHIFT	IF SEPARATING CORE/SURFACE FLAKE
DRY CHIP STORAGE	FLOW RATES MOISTURES	MOISTURE ANALYSIS	OPTIONAL	< 5 % SURFACE & CORE
FLAKE WEIGHING	WEIGHT		CONTINUOUS	0.1 %
FLAKE AND RESIN, WAX, WATER, DYE AND HARDENER BLENDING	FLOW RATES OF ADDITIONS	COMPARE USAGE CHECKS	DAILY	0.5 %
	MOISTURE EX BLENDER	MOISTURE ANALYSIS	1 HOUR	SURFACE < 14.0 % CORE < 9.0 %

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<b>ATCA CARB CERTIFICATION – PROCESS CONTROL REQUIREMENTS</b>				
<b>PRODUCT TYPE:</b> PARTICLEBOARD <b>PROCESS AREA:</b> FORMING AND PRESSING				SHEET NO: 5
<b>PROCESS/MATERIAL OPERATION</b>	<b>PARAMETERS CONTROLLED</b>	<b>TESTS PERFORMED</b>	<b>MINIMUM FREQUENCY</b>	<b>EXAMPLE TOLERANCES &amp; COMMENTS (if applicable)</b>
MATTRESS FORMING & SPREADING	MATTRESS WEIGHT EVEN & CONTINUOUS AND AT SETPOINT  SURFACE AND CORE RATIOS	WEIGHT  CROSS PANEL DENSITY  WEIGHT CHECKS	1 HOUR  1 WEEK  1 WEEK	INCREASE FREQUENCY IF LARGE NUMBER OF PROCESS CHANGES
PRESS LOADING	MATTRESS INTEGRITY	VISUAL	OPERATOR VARIABLE	INCREASE FREQUENCY IF LARGE NUMBER OF PROCESS CHANGES
PRESSING	TEMPERATURE  PRESSURE CLOSING TIME AIRING STEPS	MONITORING  MONITORING TIMED TIMED	EACH PRESSING “ “ “	

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### ATCA CARB CERTIFICATION – PROCESS CONTROL REQUIREMENTS

<b>PRODUCT TYPE:</b> MDF				SHEET NO: 8
<b>PROCESS AREA:</b> FIBRE PREPARATION				
PROCESS/MATERIAL OPERATION	PARAMETERS CONTROLLED	TESTS PERFORMED	MINIMUM FREQUENCY	EXAMPLE TOLERANCES & COMMENTS (if applicable)
CHIP WASHING	CHECK OPERATION		1 / SHIFT	AFFECTS CLEANLINESS OF CHIP – REMOVES SAND, KNOTS ETC.
PRE STEAMING	STEAMING BIN TEMP		MONITOR	90 – 95 ° C REDUCES REFINING ENERGY, DIGESTOR TIME REQUIRED AND STEAM CONSUMPTION
DIGESTOR	STEAM PRESSURES & FLOWS		MONITOR	CONSISTENT COLOUR & FIBRE QUALITY USUALLY INTER RELATED WITH COOKING TIME
WAX ADDITION	METERING CONTROL	WAX PRESENCE	MONITOR	ACTS AS WATER REPELLENT DEPENDS ON WOOD SPECIES, USUALLY 0.5 – 1.0%
REFINING	DISC SPACING  BLOW VALVE OPENING	PARTICLE SIZE	OPERATOR VARIABLE	CONSISTENT, FINE FIBRE GIVES BETTER MACHINEABILITY BUT REQUIRES MORE RESIN USAGE.
RESIN ADDITION	BATCHING & METERING	VISUAL CHECK ON FLOW RATE	MONITOR	COST & PROPERTY CONTROL. MAJOR RAW MATERIAL CONTROL
DRYER	INLET TEMP. OUTLET MOISTURE SET POINT	MOISTURE CONTENT	OPERATOR VARIABLE	MOISTURE CONTENT CONTROL SHOULD BE <0.5% FOR OPTIMUM PRESSING

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<b>ATCA CARB CERTIFICATION – PROCESS CONTROL REQUIREMENTS</b>				
<b>PRODUCT TYPE:</b> MDF <b>PROCESS AREA:</b> PRESSING				SHEET NO: 9
<b>PROCESS/ MATERIAL OPERATION</b>	<b>PARAMETERS CONTROLLED</b>	<b>TESTS PERFORMED</b>	<b>MINIMUM FREQUENCY</b>	<b>EXAMPLE TOLERANCES &amp; COMMENTS (if applicable)</b>
FORMING	MAT SPREAD	VISUAL SURVEILLANCE		SHOULD BE EVEN, NO HOLES
	MAT WEIGHT VARIATION	WEIGHSCALE	CONTINUOUS MONITORING	DEPENDS ON THICKNESS, USUALLY < 2 % FOR MEDIUM- THICK BOARD & <5% FOR THIN.
	MOISTURE CONTENT	ON LINE METER	CONTINUOUS	
		OPERATOR TESTS	HOURLY	DEPENDS ON THICKNESS & PRESS TYPE 8 – 13 %
PRESSING	TEMPERATURE	MICROPROCESSOR CONTROLLED	CONTINUOUS MONITORING	DEPENDS ON TECHNOLOGY OF WOOD SPECIES, RESIN TYPE AND EQUIPMENT TYPE
	PRESSURE			
	SPEED/ CLOSING TIME			
CUT OFF SAW	BOARD LENGTH	MANUAL CHECK	SET-UP AND HOURLY	SELECTABLE, ± 2mm TOLERANCE`
	BOARD THICKNESS	AUTO OR MANUAL	MANUAL CHECK HOURLY	± 0.2 - ± 0.5 DEPENDING ON THICKNESS
	BOARD MASS	WEIGH SCALE	IF AVAILABLE	DEPENDS ON SIZE AND DENSITY, USE AS CONTROL ON MAT WEIGHT
	SURFACE APPEARANCE	VISUAL SURVEILLANCE	HOURLY	LOOK FOR RESIN SPOTS, SHIVES, OIL, FIBRE SPOTS, OPEN SURFACE

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## ATCA CARB CERTIFICATION – PROCESS CONTROL REQUIREMENTS

### PRODUCT TYPE: Hardwood Plywood

PURCHASED MATERIALS	QUALITY PARAMETERS
1. Resin	<ol style="list-style-type: none"> <li>1. Solids</li> <li>2. Viscosity</li> <li>3. Specific Gravity</li> <li>4. Gel time</li> </ol>
2. Veneer	<ol style="list-style-type: none"> <li>1. Veneer grading</li> <li>2. Thickness</li> <li>3. Moisture Content</li> </ol>
3. Phenolic overlay	<ol style="list-style-type: none"> <li>1. Flow characteristics</li> </ol>

MANUFACTURING PROCESS	PROCESS VARIABLES
1. Log storage and debarking	<ol style="list-style-type: none"> <li>1. Incoming log quality vs. log specification</li> <li>2. Log yard cleanliness</li> <li>3. Water spraying and end coating (where applicable)</li> <li>4. Debarking quality</li> </ol>
2. Cross Cutting	<ol style="list-style-type: none"> <li>1. Cross cut length</li> </ol>
3. Log Heating (where applicable)	<ol style="list-style-type: none"> <li>1. Time and temperature of heating and/or</li> <li>2. Temperature of log veneer or peeler core</li> </ol>
4. Veneer Peeling	<ol style="list-style-type: none"> <li>1. Scribed length, where applicable</li> <li>2. Veneer thickness</li> <li>3. Veneer smoothness/roughness</li> <li>4. Veneer tightness/looseness</li> </ol>
5. Veneer clipping	<ol style="list-style-type: none"> <li>1. Veneer width</li> <li>2. Veneer squareness</li> </ol>
6. Veneer drying	<ol style="list-style-type: none"> <li>1. Veneer moisture content</li> </ol>
7. Veneer grading	<ol style="list-style-type: none"> <li>1. Visual grade</li> <li>2. Stiffness sorting</li> </ol>
8. Veneer jointing	<ol style="list-style-type: none"> <li>1. Thickness control</li> <li>2. Width and squareness</li> <li>3. Joint quality</li> </ol>
9. Glue mixing	<ol style="list-style-type: none"> <li>1. Mix ingredients</li> <li>2. Mix viscosity at standard temperature</li> </ol>
10. Glue spreading	<ol style="list-style-type: none"> <li>1. Glue spreads</li> </ol>
11. Prepressing	<ol style="list-style-type: none"> <li>1. Pressing conditions</li> <li>2. Transfer and Grip quality</li> </ol>
12. Hot pressing	<ol style="list-style-type: none"> <li>1. Pressing conditions, platen temperature, pressure and time</li> </ol>

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13.	Water spraying (where applicable)	1. Water spraying quality
11.	Panel trimming or billet pressing	1. Panel length and width 2. Panel squareness 3. Panel edge straightness
15.	Sanding or moulding	1. Sanding quality 2. Panel thickness
16.	Machine stress grading	1. Machine calibration
17.	Preservative treatment to hazard Class H1	1. Preparation of treatment solution or dosage of gluelines 2. Uptake of preservative or treatment solution
18.	Branding	1. Correct brands 2. Legibility of branding
19.	Equipment Calibration	1. Records 2. Calibration Procedures 3. Labelling or marking of calibrated equipment
20.	End Product Testing	1. Bond Quality Analysis 2. Testing of incoming materials will be audited where applicable 3. Structural testing
21.	Internal Auditing	1. Audit schedule frequency and results 2. Records
22.	Documentation	1. Documentation in use at work stations shall be checked to ensure that it is current and up to date. Where appropriate the auditor shall check these documents against the mill's Master List.

## 3. **ATCA ACTIVITIES**

Activities to be conducted by ATCA in the determination of the plants' compliance with the rules of the CARB Certification Scheme are:

### 3.1

#### 3.1.1 Initial Product Compliance

The first stage in the Certification process is for the plant to have its product tested by both the primary and secondary test chamber methods to the authorized ASTM tests. Samples must be submitted to ATCA who will organize the tests, either in a contract laboratory or in its own laboratory. Equivalency between the two methods is to be demonstrated so that the secondary test method can then be utilized in the next stage of the process.

The plant must then establish a correlation between the secondary test method and the small scale test it intends to use for QC testing. The correlation must be based on a minimum sample size of 5 pairs for each range of product emissions and have a minimum  $R^2$  value of 0.7. The purpose of the correlation is to enable the plant to set its upper limit (QCL or Shipping QCL) in terms of the small scale test. An Excursion Limit should also be established and agreed with ATCA.

The manufacturer may group two or more product types together if they have similar emission characteristics. The emissions from each product type or group from each line must not exceed the applicable CARB standard.

The plant will also be inspected by ATCA to ensure its quality control procedures and records are in accordance with these rules.

#### 3.1.2 Continuing Compliance

To ensure on-going compliance the plant must continue to achieve QC formaldehyde results below its QCL or Shipping QCL, on its various categories of products. Occasional values up to the Excursion Limit are acceptable, but if results regularly exceed the QCL or a result exceeds the Excursion Limit, the QC manager must notify ATCA and advise what action has been taken to correct the situation and dispose of or redeem the affected product.

An ATCA inspector will, additionally, every 3 months, conduct an inspection of the quality control system and will randomly identify samples for each product type to be tested via the primary or secondary test method. The secondary ( $1\text{m}^3$  chamber) test may be used for quarterly testing, provided equivalence with the primary test is demonstrated annually.

Unless otherwise agreed, compliance is separately evaluated for each particular grade. Where the plant elects to have all or multiple products represented by a single correlation test, a quarterly result on that group which exceeds the applicable standard, will cause a failure of all the represented products.

### **3.1.3 Selection and Submission of Samples**

Correct and consistent sampling is extremely important.

Samples will be required to be selected according to written procedures. The sampling process is required to be consistent and without bias. Handling and shipping procedures must provide clear instructions so that samples will arrive at the test laboratory consistent each time in relation to time from pressing, sealing and minimization of damage. Inspectors will approve all such plans from applicants.

Where a plant elects to have the QC testing or secondary testing conducted by ATCA, the samples must be securely sealed and wrapped.

Samples are to be mailed or couriered to:

ATCA Inc  
Unit 3, 45 Tallebudgera Creek Road  
West Burleigh Qld 4219  
Tel: 07 5520 4215  
Fax: 07 5520 4216  
Email: [awpatestcentre@woodpanels.org.au](mailto:awpatestcentre@woodpanels.org.au)

### **3.1.4 Reporting, Records and Storage**

The ATCA Test Centre will issue reports on all test results. Tests shall be NATA accredited. After test results are completed, the reports will be posted on the ATCA website [www.atca.asn.au](http://www.atca.asn.au) on a turnaround time of 10 days for QC tests and 30 days for chamber tests.

Back-up samples will be retained for 3 months. Plants may request re-tests if a testing error is suspected to be the cause of a test failure.

## **3.2 Applications for CARB certification**

Prior to the first inspection of a plant being scheduled, the plant must first formally apply for Certification using the Application Form. Applications must be signed by an Executive of the company concerned and are to be sent to the Technical Operations Director of ATCA. The plant will also submit its documentation in relation to the Scheme ie the Quality Control manual and procedures and specifications.

The ATCA inspector will review the documentation for familiarity purposes and compliance with the ATCA Guidance Manual. A report will be issued back to the Plant within 21 days, with deficiencies to be corrected before or at the on-site inspection.

### **3.3 ATCA Inspections of Plant Process & Quality Control**

#### **3.3.1 Scheduling of Inspections**

An ATCA inspection will normally be conducted on each participating plant every 3 months. Inspections may be conducted by ATCA Staff or in some cases, with the approval of the plant concerned, may be fully or partly sub-contracted to another qualified person, who will conduct the inspection under the direction of and on behalf of ATCA. The purpose of the inspection is to determine whether the plant conforms to the rules, procedures and systems described in Section 2 of this manual.

The time taken for each inspection will be one day or part thereof for one Inspector, depending on the size of the plant and the scope of its activities which are certifiable.

#### **3.3.2 Planning the Inspection**

The Inspector will prepare an inspection plan which describes the location, time, scope and personnel involved in the inspection from both ATCA and the plant. The ATCA Technical Operations Director will check that there are no conflicts of interest of the proposed Inspectors with the plant being inspected and that all working documents have been supplied to the Inspector.

#### **3.3.3 Performing the Inspection**

The ATCA Inspector holds an Entry Meeting to discuss what is going to be checked and how and when it is going to be done. The Inspector requests advice of any changes to plant, personnel and production output figures.

The Inspector checks the resources and facilities requested are available.

The Inspector collects evidence by interviewing staff, examining documents and observing activities and conditions in the area being inspected. In particular the inspector will check the following as a minimum:

- Check production records of certified product produced since the last inspection.
- Randomly investigate at least 5 batches for records of raw materials used, processing parameters and formaldehyde test results.

- Records inspected for each product type will be resin types used and resin Certificates of Analysis, resin loadings, densities, press speeds and temperatures, batch traceability and formaldehyde test results and test personnel.
- Investigate whether there were any significant deviations from the standard processing conditions, and the likely implications.
- Check certification documents issued by the plant.
- Audit formaldehyde testing methods, including equipment calibrations.
- Assess current QC personnel for competency.

The Inspector brings to the notice of the client evidence of non-conformity and records pertinent details on the working documents.

The Inspector holds an Exit Meeting to discuss the findings of the inspection and presents a non-conformance report and checks off on the inspection plan the scope of inspection.

### **3.3.4 Inspection Report**

In all cases, whether the inspection is conducted by an ATCA Staff member or a non-ATCA Inspector, the non-conformance report and other working documents may only be evaluated by ATCA.

From the non-conformance report, the scope and other working documents, the Inspector will prepare an Inspection Report, noting the findings and conclusions of the inspection. Any deficiencies will be classified as 'O' for observation, or 'N' for non-conformities (major or minor types). All Inspection Report and Non-Conformance Reports will be addressed to the QC Manager within 14 days of the final working day of the inspection.

### **3.3.5 Selection of Samples by Inspector**

During the inspection, the Inspector will select and mark random product samples to be dispatched to the ATCA laboratory for secondary testing. These samples will be used to confirm the reliability of the plants' sampling and must be packed and dispatched by the plant within one week of the inspection.

## **3.4 Failure Reporting**

### **3.4.1 System Failures**

#### **3.4.1.1 Classification**

System failures involve an omission of a quality control step or lack of documentation. These would normally be

detected during an ATCA inspection. If the failure is likely to directly affect product formaldehyde emission results or reliability and is a systemic problem (eg a major process had no process control system in place) then this will be classed as a major non-conformance and no further product may be released until appropriate corrective action has occurred. If the failure does not appear to have on-going implications, it should be classed as minor.

### 3.4.1.2 Corrective Action

All non-conformances will be addressed to the QC Manager. Within 2 weeks of receiving a non-conformance report, the plant must respond with its stated corrective action, and the time frame for its implementation. The time frame for the resolution of non-conformances is by agreement between the ATCA and the plant. Corrective action arising from minor non-conformances will be reviewed at the following inspection. If the non-conformance is considered of a major or serious nature, a follow-up inspection may be scheduled by ATCA.

In any case, no further certified product may be released until all major non-conformances have been rectified and test results conform to the CARB requirements.

Any major non-conformances that are not resolved within a 3 month period will result in a written notice to the Site Manager from the Executive Director to show cause why their license, in respect to that particular product or group, should not be withdrawn or suspended. The procedures for withdrawal and suspension are dealt with in Chapter 5 of this Manual.

### 3.4.2 Test Failures

- i) Test result failures, if the result does not meet the applicable standard. Test result failures could be either from:
  - A small scale QC test, where an individual result is above the Excursion Limit (EL), in which case retesting may be done by the manufacturer. Retesting should consist of taking 3 samples from 3 different packs which are representative of the lot and then taking an average of all results. Samples should not be selected from the top or bottom sheets of a pack. If the result is below the applicable QC limit the product may be released as compliant. If it does not, ATCA must be informed. Product represented by the sample must not be released as CARB compliant.

- A quarterly secondary test. In the event of a quarterly test exceeding the CARB emission standard the product type represented will be deemed to be in violation of sections 93120-93120.12 title 17, California Code of Regulations and CARB certification will be suspended. If these conditions occur, the plant must immediately take steps to prevent any failed product from entering California or labeled as CARB compliant.

In this case the following steps must take place. First the plant must isolate the non-complying product and then investigate to try and identify the cause of the failure. If the cause is successfully identified, production may proceed. Another secondary test must be taken from subsequent production to confirm that the product is compliant and then the suspension can be lifted.

The lot from which the quarterly sample was drawn may be certified after post-treatment and retesting, using the secondary or primary method. The non-complying product is confined only to the lot from which the quarterly sample was drawn, provided the QC tests all passed.

If no specific cause of non-compliance can be found, then a new correlation between the QC test and the secondary test should be formulated so that the QC limits are re-established. Suspension can only be lifted when the product is demonstrated to meet the new QC limits.

## 4. **APPLICATION OF THE CERTIFICATION SCHEME**

The following criteria will apply to all applicant plants:

### 4.1 **Certification and its Significance**

- a) It must be an approved applicant as determined by the ATCA Quality Council. Plants must formally apply for membership of the Scheme using the Application Form in the Appendix of this Manual.
- b) It must comply with the rules as described in Section 2 of this Manual.
- c) It must co-operate with ATCA representatives in their activities, and continue to improve and correct its systems as required by reports/results issued by the ATCA. These activities are described in Section 3 of this manual.
- d) Certification is an indication of the integrity and competence of a licensee, but does not constitute a guarantee by ATCA that a licensee always maintains a particular level of performance. The manufacturer is responsible for the performance of all certified products.

### 4.2 **Criteria for Award of Certification**

#### Initial

- a) The plant must achieve initial product test compliance as defined in Section 3.1.
- b) Any deficiencies arising from the Document Review must be satisfactorily resolved.
- c) Any non-conformances arising from the plant inspection must be actioned and resolved in a way acceptable to the ATCA inspector.
- d) The ATCA Technical Operations Director must formally recommend to the ATCAQC that the plant be certified based on the above criteria and the ATCAQC must approve the Certification.

#### Ongoing

To maintain Certification, the plant must continue to comply with Clause 3.1.2 in relation to test results and be subject to surveillance inspections as described in Section 3. It must resolve any non-conformances and test failures detected in a manner satisfactory to ATCA.

### 4.3 **Extension/Reduction and Re-evaluation of Certification**

#### **4.3.1 Extension/Reduction**

A licensee may have its scope of certification reduced or extended under the following circumstances:

- i) It adds new products to its range or ceases to manufacture products from its range.
- ii) Certain of its certified products are found to be not complying with the rules of the ATCA CARB Certification Scheme.
- iii) ATCA discontinues the application of the CARB scheme to certain products.
- iv) Formal application is made to have certified, existing products which were not previously certified.

Applications for extension or reduction are to be signed by the plant manager. If the scope of certification is extended or reduced, new Certification documents will be issued by ATCA.

### **4.3.2 Re-Evaluation**

Re-evaluation of a plant's certified status will occur:

- 1) Wherever changes are made to the CARB rules assessing product compliance, and the rule changes are considered significant by the ATCAQC. The Technical Operations Director must amend the Guidance manual and advise certified plants and applicants accordingly.
- 2) There is notification of changes from the licensee as described in Section 2.6 of this manual. In this case, the Technical Operations Director will determine whether an on-site re-evaluation is necessary.

## **4.4 Contract Between ATCA and the Licensee**

A contract will be signed for each certified plant and the contract will have the format as shown in Appendix 3. ATCA will allocate a certification number to each plant which will take the form AT- 2digits for year – 2 digits for serial number eg AT-08-02.

## **4.5 Format of Certification document**

Each licensee will be issued a Certification document by ATCA of the format shown in Appendix 4. The document will describe the product grades certified. The Certification document will be individually dated and numbered and will endorse the licensee to use the ATCA TPC approval number.

## 4.6 Use of ATCA TPC Number and Plant Certificate Number

The numbers cannot be used without written permission from ATCA, ie a contract is agreed as per Section 4.4. The licensee can only use the plant number which is stated on the certificate.

The ATCA TPC number must be used on any documentation which accompanies CARB compliant product. It can be quoted by downstream fabricators who for example, manufacture furniture from the licensee's panel products. Traceability of CARB compliance is extremely important for any wood panel product which is sold into California.

Use of the Plant Certificate Number is optional and is not required by CARB.

## **5. MISUSE, WITHDRAWAL AND SUSPENSION OF CERTIFICATION AND APPEALS**

### **5.1 Misuse**

ATCA will be obliged to take action against the licensee should the following conditions occur:

- a) Market feedback indicates that a plant's product fails to conform to the relevant Standard and this is verified by test results or subsequent testing.
- b) Wood panels unauthorised to bear the ATCA TPC number are being marked.
- c) Wood panels bear a counterfeit or unauthorised number.
- d) The plant fails to meet all the requirements of the ATCA CARB Rules, has been issued a major non-conformance, and has not responded satisfactorily.
- e) ATCA representatives are denied reasonable access and co-operation as necessary, to enable monitoring of compliance with the Rules.

If any of these conditions become salient, ATCA will conduct an investigation to determine if misuse of the license is occurring. If this is the case, the Executive Director of the ATCA will send written notice to the Site Manager of the plant stating that misuse of the license has occurred and must be rectified.

### **5.2 Withdrawal and Suspension**

ATCA will withdraw or suspend the use of the license and the Certification if the following events occur:

- a) The license or Certification numbers are misused as described in Chapter 5.1.
- b) The licensee ceases to qualify according to Section 2.1.
- c) ATCA discontinues its status as a TPC.
- d) The CARB Rules are changed and the licensee either cannot or will not ensure conformity with the new requirements.
- e) The licensee voluntarily surrenders its Certification.

## **5.3 Withdrawal and Suspension Procedure**

### **5.3.1 Under Conditions of Mis-use or Failure to Qualify a) and b) above**

The ATCA Executive Director will give 14 days notice to the Site Manager of the plant to show cause as to why their license should not be withdrawn or suspended. The Show Cause notice will provide details of the specific product groups which have breached the rules. Where a product group is not compliant on one line, withdrawal or suspension of certification will apply to all lines for that group. The plant will have 14 days to take action or one of the following penalties will apply:

- a) Withdrawal of the certification for the product where the certification had been misused.
- b) Withdrawal of all certification.
- c) Temporary or partial suspension of certification at the direction of the Executive Director acting under the authority of the ATCA Quality Council.

Suspension will be authorised if it is believed that the event is of a temporary nature, and that compliance can be resumed within a reasonable period. If the licensee is recalcitrant in taking corrective action and there is no evidence of capability or willingness to take corrective action, withdrawal of the license will be enforced.

After the show cause notice, if clear and concise corrective action is not taken to the satisfaction of the ATCA Quality Council, then the decision will be made to proceed with withdrawal or suspension. The licensee will be informed in writing of the decision and a new Certificate issued from which has been deleted the products now not covered by the certification. In the case of suspension a note will be placed on the ATCA CARB register that the licence for that product is under suspension. In the case of withdrawal, their name will be immediately removed from the CARB Register in respect of the relevant product and CARB, all members, licensees and affiliates will be notified. In both cases the date of enforcement will be noted on the register.

### **5.3.2 Under Conditions of 5.2 c), d) and e) Above**

The Executive Director of ATCA, acting under the authority of the ATCA Quality Council, shall notify the licensee that their use of the license and certification number are withdrawn or suspended. The licensee will be informed in writing and all other members and affiliates of the scheme will also be notified.

**5.3.3** The licensee who has been subject to withdrawal or suspension will cease to display or otherwise use the certificate and ATCA TPC numbers, for the relevant product, on the day of notification that certification is withdrawn or suspended. Any promotional or advertising matter will be likewise withdrawn from circulation.

## **5.4 Reinstatement**

Any plant which for any reason has been subject to suspension or withdrawal, may again apply for certification. The decision to re-instate a plant will be made in writing by the ATCA Executive Director acting under the authority of the ATCA Quality Council.

Generally, the plant must first conform to the ATCA CARB Rules, and where necessary, have taken appropriate corrective action. Any additional requirements or relaxation of pre-qualification requirements will be advised in writing by the ATCA Executive Director.

Where the certification had been withdrawn, all ATCA members, licensees and affiliates will be notified that the number has been re-issued to that plant.

The ATCA CARB register will be updated immediately.

## **5.5 Appeals, Disputes & Complaints**

All licensees have the option to complain or appeal against any decision taken by the ATCA Quality Council and ATCA staff with respect to implementation and enforcement of the ATCA Guidance Manual.

### **5.5.1 Lodgement**

Appeals are made against Certification decisions and may be lodged in writing to the Chairman of the ATCAQC at PO Box 216, West Burleigh, Qld 4219.

Complaints and disputes are made in relation to ATCA test results or inspection activities and may be made to the Executive Director at the above address or by telephone 07 55204215 or by fax 07 55204216.

### **5.5.2 Appeal Committee Selection**

The Chairman of the ATCAQC will appoint a sub-committee to consider any appeals. The sub-committee will be composed of

persons who are independent and impartial from the activity under review.

### **5.5.3 Procedure**

The appeals sub-committee shall determine the outcome of the appeal taking all factors into account so that a fair and impartial decision is reached. The hearings will be conducted in the strictest confidence and will include hearings from both the appealing party and the certification personnel involved.

Complaints will be investigated by the Executive Director who will investigate and take remedial action if required.

### **5.5.4 Records**

ATCA will maintain a record of all appeals and complaints and their results.

The decision taken on any appeals will be notified to the appellant in writing.

## **APPENDICES**

### **Appendix 1**

- Contract between ATCA and the Licensee

### **Appendix 2**

- Application Form

### **Appendix 3**

- ATS Handling and Shipping Instructions

# ATCA Guidance Manual

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## ATCA CARB CERTIFICATION SCHEME CONTRACT BETWEEN ATCA AND THE LICENSEE LICENCE TO USE ATCA CARB CERTIFICATION NUMBERS

This agreement made between the AWPAs Test Centre Association Incorporated, Unit 3/45 Tallebudgera Ck Rd., West Burleigh, Qld (hereinafter called ATCA) and

.....  
in respect to PLANT LOCATION: .....  
(hereinafter called the ATCA Licensee).

Whereas ATCA is approved by the Air Resources Board, State of California, as a Third Party Certifier under Section 93120.4, Title 17, California Code of Regulations, Executive Order W-08-012, permission is given by the Association to the ATCA Licensee referred to above to use the Certification documents and numbers for the type of wood panel listed on the bottom of this agreement providing always, that the ATCA Licensee satisfies ATCA that it meets the conditions set out below for its continued usage.

### CONDITIONS:

1. The ATCA Licensee remains a financial member of the scheme or maintains the Scheme membership approval of ATCA Quality Council.
2. That it continues to manufacture composite wood panels of the type listed at the bottom of this agreement on a continuous basis without modification.
3. That the ATCA licensee meets all requirements of the ATCA Guidance Manual dated November 2008 and subsequent amendments as agreed and recorded in the minutes of the meetings of the ATCAQC.

We the undersigned, agree to the issue of this licence and accept the conditions set out above.

..... (Signed)	..... (Signed)
for: AWPAs Test Centre Association Inc	for: ATCA Licensee
..... Title:	..... Title:
Date: .....	Date: .....

The following composite wood panels and Certification number is the subject of this Licence agreement.

**CARB CERTIFICATION SCHEME**  
**Application Form**

*Please read the Guidance Manual before completing this form.*

<b>Name of Organisation</b>			
<b>Plant Name</b>			
<b>Mailing Address</b>			
<b>Registered Business Address</b>			
<b>No. of Employees on Site</b>		<b>Shifts/Days Worked</b>	
<b>Contact Person – Name &amp; Title</b>			
<b>Phone No.</b>		<b>Fax No.</b>	

<b>Products to be Certified (see Section 4.6.1)</b>	<b>Product Standard</b>	<b>Annual Output of each Product m<sup>3</sup></b>

**Please forward with this application, the following information.**

- names and details of key personnel (production, technical, quality)
- the plant Quality Control manual in relation to formaldehyde emissions
- examples of procedures, specifications and test methods for in-plant product sampling and testing

We acknowledge that in making this application for Certification, we will comply with all requirements of the Scheme, and supply any samples, information and access as required to enable proper evaluation to be conducted. Access must be made available for both ATCA staff and CARB staff for witnessing purposes.

**Signed Company Executive:** ..... **Date:** .....

ATCA Test Centre  
Postal Address: PO Box 216, West Burleigh Qld 4219 Telephone: (07) 5520 4215 Fax: (07) 5520 4216  
Address: Unit 3/45 Tallebudgera Creek Road, West Burleigh Qld 4219