NATIONAL ASSOCIATION OF TESTING AUTHORITIES, AUSTRALIA

WORKING WITH NATA ACCREDITED LABORATORIES FOR EXPORT TESTING

INDUSTRY USER GUIDE NO. 5

NATA

WILL TESTING CONDUCTED IN AUSTRALIA MEET FOREIGN MARKET REQUIREMENTS?

It all depends.

- **What is it you are trying to export?**
- **Where is your target market?**
- **What regulations or codes apply in the destination economy?**
- **Is there some type of trade agreement in place?**

If you have not yet determined the answers, you need to undertake your own research as NATA's expertise and resources don't stretch this far.

The good news is that there is an excellent starting point for your inquiries – the **ABOUT EXPORTING** tab on the Austrade (Australian Trade Commission) website www.austrade.gov.au. On this site, you will find many resources available to assist you with your efforts to be a successful exporter.

When it is determined that testing you have done in Australia will be acceptable to your market, this Industry User Guide is designed to guide you through the often confusing terminology and processes of having your product or commodity tested, measured or examined in an appropriate manner. It also goes through some of the broader conformity assessment issues such as standards and certification to provide additional context.

So to start...

WHAT IS CONFORMITY ASSESSMENT?

The formal definition of conformity assessment is the 'demonstration that specified requirements relating to a product, process, system, person or body are fulfilled'. We are only interested in products (including commodities) here but it is as it sounds – making sure that what you are exporting meets the requirements applicable in your target market.

Demonstration – The most commonly utilised processes of conformity assessment are testing, inspection and certification. Of these, the certification process is usually based on the results of the first two.

This process may vary depending on the product or commodity and the requirements of the target economy.

- In some areas – such as with commodities – a test report associated with samples taken from a shipment may be the basis of acceptance.
- For some manufactured products, full product certification may be required.
- For some products or commodities, you may need to supply only a declaration of conformity or attestation (although you would be wise to have some form of evidence that backs your declaration or attestation such as a test report or certification).

Specified requirements – There may be applicable international or local standards, specifications and/or codes with which the product or material must comply. Remember too that there may be multiple requirements managed by different bodies within the target market.

Of all the information provided in this Guide, the most critical thing to remember is that you have to provide products or materials that meet the requirements of the importing economy. It doesn't matter how many Australian requirements your product or material meets or how many requirements it meets in other economies to which you are already exporting, you must focus on the requirements of your target market.

Now it may be the case that some or all of the regulatory, industry or customer requirements you meet in Australia are common with, or are acceptable to your target market. If there is total or partial overlap, great – but do not assume this to be the case. Again, make sure you have done your research.

This may be stating the obvious – particularly for a manufacturer – but as well as knowing what requirements apply to your product or material, you need to have the text of these requirements readily available. When seeking to have conformity assessment undertaken, don't leave it all to your service provider. "I didn't know" will not be enough to have a quarantined shipment released by the foreign customs authority.

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WHAT DOES MUTUAL RECOGNITION MEAN – RECOGNITION OF WHAT?

Mutual recognition is a phrase encountered in trade or trade related agreements. While the concept is relatively straightforward "I accept yours and you accept mine", the subject of what exactly is being recognised does vary and can be a trap for the unwary.

World Trade Organisation

The World Trade Organisation has addressed non-tariff trade barriers to trade – blocks that arise such as economies having standards that differ from everyone else's and/or their refusal to accept testing/certification performed in another economy – through the Agreement on Technical Barriers to Trade (TBT Agreement). Within the TBT Agreement, the phrase 'mutual recognition' refers to the situation where parties can agree to accept goods that meet the other party's technical requirements despite any differences that might exist.

In such a case, you as an exporter might find that compliance with Australian requirements is acceptable within your target market. It should be noted though that this is a provision within, not an obligation of, the TBT agreement. Hence, it may not find its way into practice very often, even under free trade agreements.

Government-to-Government Mutual Recognition Agreements/Arrangements (G-GMRA)

There exist a small number of these agreements to which Australia is a party. They include the Australia/EU MRA (bilateral) and the APEC TEL MRA (plurilateral) which were both signed in the late 1990s. Without going into detail about their coverage, the subject of the mutual recognition is the conformity assessment processes rather than the technical requirements themselves. Under these types of MRA, there is an expectation that the testing/measurement/inspection/certification will be undertaken against the requirements of the importing economy.

Accreditation Body Mutual Recognition Arrangements

Internationally, many accreditation bodies including NATA have entered into Mutual Recognition Arrangements (MRA) which are built on a system of mutual evaluations designed to confirm the equivalence of their accreditation systems and compliance with internationally agreed standards.

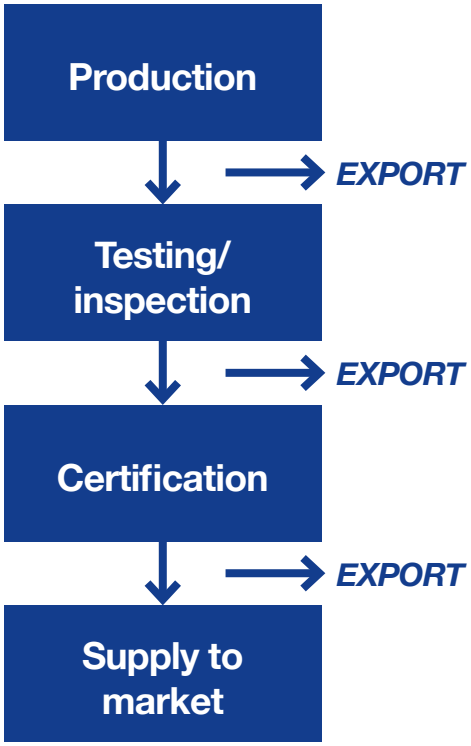
NATA is a signatory to the Asia Pacific Laboratory Accreditation Cooperation MRA, a regional arrangement with participation by upwards of 20 economies including all of Australia's major trading partners in the Asia Pacific region. NATA is also a signatory to the International Laboratory Accreditation Cooperation MRA, a global arrangement covering all regions.

Mutual recognition in the accreditation community refers to the accreditation bodies and their respective accreditation processes rather than technical requirements. These MRA do, however, facilitate the acceptance of test, measurement and inspection data across borders by providing confidence that, wherever a facility is located, it has been peer assessed for competence and capability to perform specific conformity assessment activities against the applicable requirements by an accreditation body that is a signatory to an MRA.

Accreditation body arrangements are sometimes used to underpin both Free Trade Agreements (FTA) and G-G MRAs. The rules about what technical requirements are recognised in any particular economy are solely the domain of the regulators and/or industry in that economy. Accreditation bodies link these technical requirements – whatever they might be – with appropriate and demonstrated competence of accredited facilities.

Figure 1 illustrates the typical sequence of activities necessary to bring a product to market. If mutual recognition allows a supplier to have export related testing and certification performed in Australia, this can make a significant difference to in terms of cost and time-to-market.

FIGURE 1



Scenario 1
– no MRA/trade agreement
All testing and certification performed in the destination economy prior to market supply.

Scenario 2
– MRA/trade agreement
Local testing accepted but certification (or equivalent process) performed in the destination economy.

Scenario 3
– MRA/trade agreement
Local testing and certification recognised by destination economy.

Trade Related Conformity Assessment

Trade facilitation measures such as MRAs and trade agreements not only reduce technical barriers to trade (such as non-acceptance of conformity assessment – Scenario 1) but substantially reduce time-to-marketand associated transactional costs by allowing testing, inspection and – where applicable – certification to be performed in the exporting economy (Scenarios 2 and 3).

WHAT EXPORT RELATED TESTING ACTIVITIES ARE ACCREDITED BY NATA?

NATA accredits tests, measurements and examinations which may be performed in permanent or mobile facilities and in situ for a range of product and material types falling within virtually all sectors of the economy.

- Advanced manufacturing
- Aeronautical
- Agriculture, aquaculture and horticulture
- Automotive
- Building and construction products
- Chemicals
- Electrical equipment
- Energy
- Engineering
- Information and Communications Technology
- Food
- Medical devices and pharmaceuticals
- Mining
- Transport

WHY USE A NATA ACCREDITED LABORATORY?

NATA accreditation is about confidence – yours and that of your customers – in the data and information on which you must make informed decisions. In this case, the key decision is “can I export?”

NATA accreditation covers the activities that produce this technical/ scientific data and information. In NATA’s vocabulary, accreditation has a very specific meaning.

A procedure by which an **authoritative body** gives formal recognition that a body is **competent** to carry out **specific tasks**.

Hence, NATA accreditation is a high level process of recognising collective, specific and demonstrated competencies. The core of NATA accreditation is the third party, objective, peer assessment process at a scientific and technical level that provides assurance of the facility’s capability to produce reliable data from particular analyses. The NATA Accreditation Criteria include the international standard ISO/IEC 17025 General requirements for the competence of testing and calibration laboratories which is used globally for accreditation.

In addition to confidence, NATA accreditation provides you with:

- an ability to outsource to an independent, objective authority the monitoring of laboratory performance;
- international arrangements providing for the recognition of data produced by laboratories accredited by NATA; and
- a resource to resolve disputes relating to laboratory services.

IS THE LABORATORY ACCREDITED FOR WHAT I NEED?

A laboratory's NATA accreditation may not cover every service that it provides so it is important to ask the correct question when seeking to have your product tested:

> ***"Do you hold NATA accreditation for [the specified tests] of [the specific product/material type]?"***

NATA accredited laboratories are able to add the NATA endorsement to reports covering accredited activities. As such, a more concise specification is to specify that

> ***"I want all test results reported to be NATA-endorsed".***

The services for which a testing laboratory has successfully demonstrated practical competence and capability at a NATA assessment are detailed in its Scope of Accreditation.

Scopes are publicly available documents so they are the primary source of information for anyone wanting to have something tested. They are accessible from the NATA website at **www.nata.com.au.**

NATA accredits laboratories for standards, codes and specifications applicable in other economies but it is more common to see capabilities described around Australian Standards and other domestic requirements.

Limited Scopes of Accreditation

Not every test, measurement or examination described in a particular standard, code or specification will necessarily be included in a laboratory's Scope of Accreditation. For example, some facilities may only have a limited capability with regard to the list of conformity assessment activities specified in a standard. Where one or more tests, measurements or examinations can be performed validly in isolation – that is, they are not contingent on the product/sample already having undergone another activity – NATA may accredit them for a subset of those specified in the standard, code or specification.

As such, when checking any Scope of Accreditation, it is important to clarify any limitation on the capability.

It should be noted that an accredited laboratory is permitted to include the results of tests not covered by its Scope of Accreditation on a NATA-endorsed report provided any such results are appropriately identified as not being covered by the endorsement. If you need all activities to be performed under the laboratory's Scope of Accreditation (highly advisable for export) make this clear at the start.

That is also why it is so important to specify that "all results reported must be NATA-endorsed".

A reality check

NATA has many laboratories accredited for undertaking tests, measurements and examinations on a very broad range of products and commodities but there are some gaps.

Like any business activity, laboratories need to have a sound basis for establishing a particular capability, especially where it involves significant capital and/or training investment. Through-put is an important part of this business case so that this investment is not sitting idle. Without this driver, there may be a lack of relevant conformity assessment infrastructure in Australia, accredited or otherwise.

This can be worse for exporters who need to find service providers accredited for mandatory foreign requirements. It sometimes happens that there is only one exporter in the whole country wanting these services and it will not be viable for laboratories to develop and maintain a capacity.

What can you do? In order of the most to least attractive, the options include:

- seeking recognition from your target market of the equivalence of Australian requirements;
- assist with funding the set-up costs for the testing; or
- having the conformity assessment of your product or commodity performed in your target market.

NATA-ENDORSEMENT – WHAT'S THE SIGNIFICANCE?

The NATA endorsement consists of the NATA logo, the laboratory's accreditation number and the International Standard with which the facility complies. This will be presented similar to the following:

Accredited for compliance with ISO/IEC 17025
Accreditation number xxxxx

In addition, the following statement may be added where you need international recognition of the reported results:

NATA is a signatory to the ILAC mutual recognition arrangement for the mutual recognition of the equivalence of testing, calibration and inspection reports

NATA endorsed vs unendorsed reports – cost/benefit?

NATA requires that all activities described in the Scope of Accreditation are performed using exactly the same processes and to the same level of confidence whether reported on a NATA-endorsed report or not.

Some laboratories do, however, apply a surcharge to issue an endorsed report for commercial or marketing reasons.

For you as the customer of the accredited service provider, the NATA-endorsement is there to provide prima facie evidence that the test results within the report have been issued under the facility's NATA accreditation. Hence, you can have the confidence that the tests, measurements and examinations have been undertaken by competent staff using sound science/engineering as verified by NATA's peer assessment processes.

Similarly, your foreign customers and auditors (if your business is subject to some form of external oversight) may share this confidence.

WHAT DO I NEED TO SPECIFY?

Dropping off a product or sample at a laboratory and saying "I want it tested" is not the best approach – yet it actually happens quite frequently. NATA accredited laboratories will happily assist you with defining your needs but they do need some specific information first.

Once you have ascertained that the laboratory is appropriately accredited, the next step is to ensure clarity around:

- The testing being for export purposes;
- Why you need their services – e.g. one-off investigation, regulatory compliance, on-going routine production testing, market surveillance etc.;
- Any specifics for sampling - your own or those relating to a standard/specification;
- What tests and examination you wish to have performed;
- The standard, code or specification that is applicable to the product; and
- Where appropriate, the test method to be used (if the standard, code or specification allows for options).

This gives the accredited laboratory a starting point for determining its ability and availability to undertake the work and, of course, work out the cost.

Test plans

For more complex products that require a series of tests and possibly other considerations such as pre-conditioning, it may be desirable – or necessary – to develop a test plan in conjunction with the laboratory.

Test plans ensure there is no ambiguity in requirements and are also very useful when:

- multiples tests have some consequential aspects (if-then-else);
- there may be a choice of test limits based on the design application of the product;
- there are customer specified test conditions accommodated by the standard or specification – e.g. environmental testing.

What do I do if my testing requirements change?

Where there is a standing arrangement or contract for samples to be routinely tested – such as under a certification scheme – you need to notify the laboratory of any changes to the requirements. Conversely, laboratories need to contact their customer if the sample type changes or the integrity of the sample is in doubt.

Any material change to such a standing arrangement needs to be done in writing and confirmed by the laboratory.

WHAT IS IMPORTANT WITH PRODUCT/ SAMPLES TO BE TESTED?

Sample integrity

It may seem obvious that samples supplied to a laboratory need to be representative of the product or commodity that will be exported and yet it is so often an issue in practice. The best quality testing service available is effectively useless if samples are compromised by:

- poor sample selection/preparation;
- inappropriate storage and transport (e.g. temperature, shock, vibration, water ingress); and
- incorrect or inadequate identification.

Compromised samples will waste everyone's time and your money. In relation to the safety and health aspects of your exports, you may also damage trading relationships. To do that may destroy your reputation entirely and not just with your immediate customer.

Supplying the correct amount/number of samples

Some codes and standards as well as product certification regimes are specific about the number and, for bulk materials, quantity of samples that need to be tested. Ensuring that you supply the correct amount of material and/or the number of samples will save delays with the laboratory and minimise your costs.

'Samples tested as received'

This statement is usually applied to test reports when the laboratory has not been responsible for the collection of samples. Use of this statement does not, however, remove the responsibility of the laboratory to test samples that are in a satisfactory condition. Laboratories are required to have procedures covering the acceptance of samples for testing.

If a laboratory receives a sample that does not meet acceptance criteria, they need to contact the customer and ascertain what action to take. The best option is to provide another sample but this is not always possible. In such cases the testing may be undertaken but the test report must include comments regarding the nature of the problem(s) with the samples and, where applicable, that caution is required when interpreting the result(s). Such caveats may have serious implications regarding the intended use of the report, such as for demonstrating compliance with a specified code, and lead to rejection of the shipment at the foreign border.

WHAT SHOULD BE THE ROLE OF TESTING IN SUPPLY DECISIONS?

Testing is a conformity assessment activity used to determine whether the product or material under test meets one or more defined criteria. The results of the test apply to the particular example of the product, or the sample of a commodity, that actually underwent testing.

Basing supply of a product solely on an initial (type) test can be fraught unless there is also a high level of confidence in the reliability and consistency of production. In some very specific cases where:

- a sample can reasonably be taken as being representative of a defined batch of material (e.g. it is demonstrably homogeneous); and
- the laboratory has control of the sampling in accordance with a validated plan,

then it may be appropriate to interpret the test result as being representative of the batch or shipment.

Except for such specific cases, a test result is specific to the sample or item(s) actually tested. As such, the decision to use the test result as being representative of a larger batch of material or a serially produced product is not one for the laboratory to make. Their role is to provide reliable data on which such decisions can be made.

Decisions on how a test result is to be used should occur downstream in the supply chain (hopefully involving the purchaser) in order to ensure the interests of the purchaser and/or consumer are protected. Product certification bodies accredited by the Joint Accreditation System of Australia and New Zealand (JAS-ANZ – www.jas-anz.com.au) or a JAS-ANZ MLA partner can play an important role in resolving the possible disconnect between individual test results and the commercial supply of products. Many product certification systems incorporate production tests and some even market surveillance in order to ensure that what goes into the market remains compliant with the relevant standard, code or specification.

Even where a certification may be based on an initial or type test, a wise exporter will consider the products' risk profile and undertake an appropriate level of surveillance testing to protect both their market and reputation.

WHAT SHOULD I DO WITH MY NATA-ENDORSED REPORTS?

NATA's accreditation criteria detail what needs to be included in a test report. Nonetheless, you should still check any test report received to ensure that:

- it matches the sample(s) provided for testing;
- it references the agreed standard, code, specification and/or test method;
- the results are reported in the manner prescribed by the applicable standard, code or specification;
- any statement regarding sampling reflects the arrangements as understood by the customer;
- any additional information that you have requested such as photographs of the test configuration, and
- the NATA-endorsement has been included.

Unless the laboratory performing the tests has been involved in the sampling, the report may include a statement to the effect that 'samples were tested as received'. This indicates that the customer has been responsible for providing the samples to the laboratory.

If the sampling has been performed by another accredited laboratory or an accredited inspection body, details of the sampling should have also been provided in a NATA-endorsed report.

ADDITIONAL CONSIDERATIONS TO PROTECT YOUR BUSINESS

Photographs

While good practice, it is not an accreditation requirement for a laboratory to include photographs of what is being tested and how the test is being performed unless a specific product standard has such a requirement. For products that are complex, those where the result is highly dependent upon the test configuration or product identification is critical for regulatory purposes, you should consider the inclusion of photographs – including close-ups of any critical aspects – in the test report as a mandatory requirement of your test request. This ensures that you have evidence of the way the test was performed and your foreign customer can see that the product being tested matches the one you are exporting. If a laboratory will not provide this additional service, consider seeking another laboratory.

Witnessing

As the laboratory's customer, you are entitled to ask to witness any testing performed. Remember that the laboratory is obliged to protect the information of all clients so, if they are undertaking work for another customer, they will need to shield this from you. Hence, witnessing should be arranged with due notice so that everyone's confidentiality can be protected. Remember though, witnessing does not permit you to exert influence over the testing or test outcomes.

Product identification and traceability

Not all products submitted for testing are necessarily easy to track and/or may lack any formal identification. You need to ensure that your own records contain adequate information on matters such as the supply chain, batch numbers, and any other information that will allow you to trace product onto the ship or aeroplane.

COMMUNICATION IS THE KEY

The key to successfully gaining reliable testing data is effective communication between the laboratory and client.

An understanding between you and your selected NATA accredited laboratory doesn't just happen, it must be pursued. Two particular points to remember:

- Initial clarity surrounding the purpose of the testing will aid all subsequent discussions and greatly improve the likelihood of obtaining the appropriate services; and
- Communication shouldn't be a once-off event – if you have questions having received the test report and something seems odd or doesn't make sense, ask.

SUMMARY

Why use a NATA Accredited facility?	• 3rd party verification of capability and competence • Compliance with international standard for laboratories • International recognition of results
Is the laboratory accredited for the services I need?	• Ask the right question regarding NATA Accreditation • Check laboratory's Scope of Accreditation • Make sure they can accommodate any foreign requirements
What do I need to specify?	• **All results to be NATA-endorsed** • The purpose of the test • Test methods (where appropriate) • Applicable standard, code or specification • When you need the results
What is important with samples to be tested?	• Collection - who, sample plan, amount and number • Identification, traceability and labelling • Maintaining integrity during transport
What should I do with my reports?	• Check that report is clear and complete • Make sure foreign requirements are addressed • Make sure report is NATA endorsed • Take note of any comments • Use the results to benefit your business!

HELP IS AVAILABLE

NATA also recognises that despite best intentions and a robust accreditation system, things may go wrong. If you are experiencing difficulties with any NATA accredited laboratory and have not been able to resolve them through direct discussions, it is recommended that you contact NATA to discuss the general nature of any concerns. You should then follow this up with a written account of the issues which will be dealt with by NATA's comprehensive processes.

Please direct inquiries to:

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Rhodes NSW 2138
Ph (02) 9736 8222
Email regina.robertson@nata.com.au

USEFUL REFERENCES

Industry User Guide series
(available from www.nata.com.au)

No 1 Working with NATA accredited food testing laboratories

No 4 Working with NATA accredited building product testing laboratories

ILAC Publications (available from www.ilac.org)

ILAC Mutual Recognition Arrangement

Signatories to the ILAC Arrangement

Accreditation: Facilitating world trade

NATA