

APLAC Testing Programs

T001 - Metals in waters

- 100 laboratories from 21 economies (16 APLAC)
- coordinated by NATA
- Al, Cd, Cr, Co, Cu, Fe, Pb, Ni, Zn
- 4 samples (2 pairs)
- APHA test methods
- final report issued October 1996

T002 - Tensile testing of metal

- 158 laboratories from 32 economies (16 APLAC)
- coordinated by NATA
- round steel bars 400 mm x 25.4 mm
- 2 samples
- diameter, gauge length, yield strength, tensile strength, % elongation
- % reduction of area
- ASTM A370 test method
- final report issued March 1997

T003 - Dust in air

- 41 laboratories from 7 APLAC economies
- coordinated by CNLA
- 4 filter cassettes
- normal methods
- final report to be issued in August 1999

T004 - Food additives

- 143 laboratories from 33 economies (13 APLAC)
- coordinated by HKAS
- 1 sample
- benzoic acid in oyster sauce
- normal methods
- final report issued July 1997

T005 - Aluminium alloys

- 92 laboratories from 22 economies (13 APLAC)
- coordinated by NATA
- aluminium disc 60 mm x 10 mm
- Si, Fe, Cu, Mg, Mn, Ti, Zn, Ni
- normal methods
- final report issued July 1997

T006 - Asbestos

- coordinated by NIST/NVLAP
- asbestos identification
- commenced June 2000
- final report expected in mid 2002

T007 - Milk powder

- 85 laboratories from 25 economies (14 APLAC)
- coordinated by IANZ
- whole milk powder satchels
- 2 samples
- fat, protein, moisture, ash
- normal methods
- final report issued December 1997

T008 - Textiles

- 81 laboratories from 22 economies (13 APLAC)
- coordinated by NATA
- polyester-cotton, polyester-viscose
- 2 samples
- quantitative fibre analysis, breaking load, extension
- mass per unit area, threads per unit length
- ISO 1833, 5081, 3801 (5), 7211/2 methods
- final report issued November 1997

T009 - Fish

- 104 laboratories from 30 economies (13 APLAC)
- coordinated by NATA
- canned fish flesh
- 2 samples
- As, Cd, Pb, Hg, Zn, Sn
- normal methods
- final report issued July 1998

T010 - Electrical safety

- 70 laboratories from 28 economies (15 APLAC)
- coordinated by NATA
- transformer (1 sample)
- insulation resistance, electric strength, temperature-rise, creepage, clearance
- IEC 742 based methods
- final report issued in August 1998

T011 - Concrete

- 70 laboratories from 17 economies (17 APLAC)
- coordinated by NATA
- concrete cube and cylinder samples
- height, diameter, mass, mass per unit volume, compressive strength
- final report issued in January 2000

T012 - Plastics

- 62 laboratories from 22 economies (10 APLAC)
- coordinated by A2LA
- testing the tensile properties of plastic
- commenced June 1998
- final report issued in July 1999

T013 - Toy Safety

- 47 laboratories from 22 economies (11 APLAC)
- coordinated by HOKLAS
- testing based on EN71 Part 3: 1994
- determine the migration of the elements barium, cadmium, chromium and lead on paint coated samples
- sample distribution August 1998
- final report issued in July 1999

T014 – Pharmaceuticals

- 38 laboratories from 14 economies (10 APLAC)
- organised by the Department of Scientific Services, Institute of Science and Forensic Medicine (ISFM) Singapore and SAC-SINGLAS
- analyse the active ingredient of Tolbutamide in two samples
- sample distribution August 1998
- final report issued April 1999

T015 - Tensile Testing of Steel Bars

- 100 laboratories from 30 economies (14 APLAC)
- coordinated by NABL India
- two steel bars tested for diameter & gauge length, proof stress, tensile strength and elongation
- based on ASTM A370-95
- samples distributed in September 1999
- final report issued in July 2000

T016 – Toy Safety

- 52 laboratories from 20 economies participated (9 APLAC)
- coordinated by HKAS
- flammability of fabric samples
- samples dispatched November 1999
- final report issued in June 2000

T017 – Mobile Phones - SAR

- 16 laboratories from 7 APLAC economies
- coordinated by TAF
- Single band mobile phones supplied for testing
- Tests – Specific Absorption Rate
- Final report issued December 2005

T018 – ADSL Terminal Equipment

- 16 laboratories from 8 economies participated (7 APLAC)
- coordinated by TAF
- ADSL test samples
- Tests – Aggregate Signal Power Limitation (25.875kHz to 138kHz) and Power Spectrum Density (Maximum from 25.875kHz to 138 kHz)
- Final report issued February 2005

T019 – Telephone Set

- 21 laboratories from 9 economies participated (8 APLAC)
- coordinated by TAF
- Telephone Set supplied for testing
- Tests – Ringing Impedance and Maximum Power
- Final report issued March 2005

T020 – Portland Cement

- 83 laboratories from 30 economies participated (13 APLAC)
- Coordinated by TAF Portland cement sample
- SiO₂, Al₂O₃, Fe₂O₃, CaO, MgO, SO₃, loss on ignition
- Final report issued February 2006

T021 – Alcoholic Beverage

- 73 laboratories from 27 economies (12 APLAC)
- Coordinated by TAF
- Alcoholic Beverage sample
- Test – Methanol, Sulphur dioxide
- Final report issued February 2006

T022 - Toy Safety

- coordinated by HKAS
- acoustical tests for squeeze toys
- circulation schedule commenced January 2000
- 29 laboratories from 12 economies (9 APLAC)
- final report issued in August 2002

T023 - Electrical Safety

- 65 laboratories from 32 economies (15 APLAC)
- coordinated by NATA
- household electric irons
- tests to IEC 60335 - Heating, leakage current & electric strength, abnormal operation, creepage and clearance, power input and current.
- Final report issued in January 2001

T024 - Coal

- 73 laboratories from 27 economies (11 APLAC)
- coordinated by NATA/VILAS
- two coal samples
- tests - Moisture, Ash, Volatile Matter, Gross Calorific Value, Total Sulphur
- samples dispatched in October 2000
- final report issued in February 2001

T025 – Flour

- 97 laboratories from 30 economies (15 APLAC)
- coordinated by SAC-SINGLAS, Singapore
- two wheat flour samples
- tests - ash, moisture, protein, copper, preservatives
- final report issued in December 2001

T026 - Low Alloy Steel

- 67 laboratories from 31 economies (15 APLAC)
- coordinated by JAB, Japan
- two low alloy steel samples
- test percentage composition of 10 elements
- report issued October 2001

T027 - Rockwell Hardness

- 87 laboratories from 32 economies (15 APLAC)
- coordinated by IAJapan
- 6 steel test pieces, 4 flat and 2 round

- testing Rockwell Hardness to ISO 6508-1 or equivalent
- report issued in December 2002

T028 - Egg Powder

- 72 laboratories from 27 economies (10 APLAC)
- coordinated by NABL, India
- testing chemical residues in egg powder
- commenced September 2001
- final report issued March 2003

T029 – Food

- 101 laboratories from 34 economies (15 APLAC)
- coordinated by NATA
- 2 meat paste samples
- testing protein, carbohydrate, fat, moisture, ash and energy
- report issued November 2001

T030 - Food Microbiological

- 117 laboratories from 45 economies (18 APLAC)
- coordinated by CNAL
- detection of pathogens
- quantifying coliforms, aerobic counts
- final report issued January 2003

T031 - Cement

- coordinated by JNLA, Japan
- one 2kg bag of portland cement + standard sand
- tests - compressive strength to ISO 679
- commenced January 2002
- final report expected late 2003

T032 – Dairy

- 126 laboratories from 42 economies (15 APLAC)
- coordinated by NATA
- two milk powder samples
- tests- Moisture, Ash, Fat and Protein
- commenced June 2002
- final report issued September 2002

T033 – Geochemical

- 60 laboratories from 25 economies (12 APLAC)
- coordinated by KOLAS, Korea
- sample of Feldspar and sample of Phyllopyllite

testing - Major elements(11)

SiO₂, Al₂O₃, MgO, K₂O, MnO, Igloss, Fe₂O₃, CaO, Na₂O, TiO₂, P₂O₅

Minor elements(11)

Ba, Co, Cr, Cu, Mo, Ni, Nb, Pb, Sr, V, Zr

- commenced in April 2002
- final report issued January 2004

T034 – Genetically Modified Organism

- 55 laboratories from 30 economies (13 APLAC)
- coordinated by CNAL, China
- Soybean powder sample
- Tests – qualitative – presence using positive and negative controls, quantitative, - using real time PCR to determine GM soya
- Commenced September 2003
- Final report issued May 2004

T035 – Food Additive

- 83 laboratories from 40 economies (16 APLAC)
- coordinated by CNAL, China
- Beverage samples
- Tests – benzoic acid, sorbic acid and sodium saccharin
- Commenced in May 2003
- Final report issued August 2004

T036 – Food Veterinary Drug Residues

- 40 laboratories from 26 economies participated (12 APLAC)
- coordinated by CNAL, China
- degreased drysheep liver powder
- tests – salfonamides
- Final Report issued November 2004

T037 – Rice Flour

- 89 laboratories from 38 economies (15 APLAC)
- Coordinated by NATA, Australia
- Rice Flour samples
- Tests – Protein, Ash, Total Fat, Protein, Dietary Fibre, Energy, Available Carbohydrate
- Final report issued November 2003

T038 – Pharmaceutical

- 32 laboratories from 17 economies (10 APLAC)
- Coordinated by HKAS, Hong Kong
- Liquid samples
- Tests – Chlorpheniramine, maleate, Pseudoephedrine
- Final report issued August 2004

T039 – Toy Safety

- 71 laboratories from 27 economies (12 APLAC)
- Coordinated by HKAS, Hong Kong
- Alkyd resin paint coated aluminium plate
- Tests – migration of barium, cadmium, chromium and lead
- Methodology EN71-3:1994
- Final report issued in March 2006

T040 – Coal

- 60 laboratories from 26 economies (12 APLAC)
- Coordinated by VILAS, Vietnam
- two coal samples
- tests - Moisture, Ash, Volatile Matter, Gross Calorific Value, Total Sulphur
- samples dispatched in March 2004
- Final report issued December 2004

T041 – Coliforms

- 38 laboratories from 16 economies (15 APLAC)
- Coordinated by NATA
- Identification and quantification of E.coli, Entrobacter aerogenes, Enterococcus faecalis
- Samples dispatched April 2004
- Final report issued August 2004

T042 - Paper

- Coordinated by A2LA in conjunction with Collaborative Testing Services, USA
- Samples - Printing paper
- Tests – Force required to tear a single ply (tearing strength)
- Methods – TAPPI T414 and ISO 1974
- Commenced July 2004
- Final report expected early 2008

T043 - Herbal Medicine

- 38 laboratories from 17 economies (7 APLAC)
- Coordinated by HKAS
- 20g powder sample
- Tests – Cadmium and Lead in mg/kg
- Report issued January 2006

T044 – Textiles

- 55 laboratories from 16 economies (15 APLAC)
- Coordinated by HKAS

- 2 samples of cotton woven fabrics, 1 sample of silk fabric and 1 sample of silk fabric
- Tests – Cotton woven – Care performance (AATCC 135-2001; Silk – Colorfastness (AATCC 61-2001); Cotton woven – Fabric weight (ASTM D3776-1996); Cotton woven – Bursting strength (ASTM D3786-1987)
- Final report issued November 2005

T045 Fastener

- 36 laboratories from 12 economies (12 APLAC)
- Coordinated by TAF
- Test items – threaded fasteners
- Tests – Axial tensile testing of full size threaded fastener, Wedge tensile, Hardness – Rockwell C scale
- Test method – ISO 898-1 1999
- Final report issued February 2006

T046 Food Microbiological

- To be coordinated by CNAL
- Samples -milk powder, fish, chicken
- Tests – Aerobic Plate Count, *Listeria monocytogenes*, *Vibrio parahaemolyticus*, *Campylobacter*
- Expected to commence late 2005

T047 Animal Materials in Feedstuff

- 21 laboratories from 14 economies (8 APLAC)
- Coordinated by CNAL
- Samples – bovine, sheep and goat derived materials in feedstuff
- Final report issued July 2006

T048 Beef Veterinary Drug Residues

- 23 laboratories from 17 economies (9 APLAC)
- Coordinated by CNAL
- Beef sample
- Tests – Enrofloxacin and Ciprofloxacin
- Commence June 2005
- Final report issued November 2005

T049 Organochlorine Pesticide Residues in Herbal Medicine

- 70 laboratories from 26 economies (11 APLAC)
- Coordinated by HKAS
- 25 gram powdered sample
- Tests - α -BHC, β -BHC, γ -BHC, δ -BHC and HCB (mg/kg)

- Final report issued June 2006

T050 Prawn Nitrofurans Metabolites

- To be coordinated by CNAL
- Three samples of prawn
- Tests – OAZ, AMOZ, AHD, SEM
- Commenced August 2007
- Final report expected early 2008

T051 Heavy Metal Elements in Plastic

- Coordinated by TAF
- 33 laboratories from 15 economies (7 APLAC)
- Coordinated by TAF
- Polymer particles
- Tests – Pb, Cr, Hg, Cd
- Methods – IEC 62321 (or accredited method)
- Final report issued June 2007

T052 Mechanical Properties of Metal

- Coordinated by TAF
- 15 x 200mm round metal samples
- Tests – Tensile strength, Yield strength, Elongation and Reduction of Area
- ISO 6892 or equivalent
- Commenced May 2007
- Final report expected early 2008

T053 Thermal Insulation

- Coordinated by IAJapan
- Samples – two glass wool squares, two acrylic resin plates
- Test – ISO 8301/8302 Thermal Insulation
- Commenced April 2006
- Final report expected early 2008

T054 Bluetooth Application

- Coordinated by TAF
- Sample commercial product for Bluetooth functionality
- Tests – ICS proforma published by SIG
- Commenced November 2006
- Final report expected early 2008

T055 Metals in Water

- 119 laboratories from 33 economies (14 APLAC)
- Coordinated by CAEAL
- Samples concentration range 0.25 – 1.6 mg/L
- Tests – Al, As, Ba, B, Cr, Co, Cu, Fe, Pb, Mn, Mo, Ni, Sb, Se, Sr, Tl, Ti, V & Zn
- Final report June 2007

T056 Pesticide Residues in Rice

- Coordinated by CNAS, China
- Three samples of rice
- Test amounts of fenvalerate (all isomers) in each sample
- Testing methods to quantify 0.01mg/kg concentration
- Commenced August 2007
- Final report expected mid 2008

T057 Heavy Metals in Seawater Shrimp

- 102 laboratories from 37 economies (15 APLAC)
- Coordinated by HKAS
- Shrimp samples
- Tests for As, Cd, Pb
- Final report issued July 2007

T058 Malachite Green in Swamp Eel

- Coordinated by HKAS, Hong Kong
- One bottle containing 5 g of sample
- Determine the concentration of MG and LMG in µg/kg
- Expected to commence early 2008

T059 Organochlorine Pesticide Residues in Ginseng Root

- Coordinated by HKAS, Hong Kong
- Bottle containing 30 g of sample
- Triplicate analysis to determine the concentrations of HCB, PNCB, and DDE
- Expected to commence in early 2008

T060 Feeding Stuffs

- Coordinated by DSS, Thailand
- Two samples of feeding stuffs
- test moisture, ash, fat, protein, calcium and phosphorus in the samples.
- Expected to commence in June 2008

T061 Electromagnetic Interference

- Coordinated by VLAC
- Comb generator and switching regulator
- Test the conducted voltage and the radiated electromagnetic field strength
- Expected to commence late 2008

T062 BOD, COD, N₀₂,-N₀₃ & NH₃ in Wastewater

- Coordinated by SCC
- BOD, COD, N₀₂,-N₀₃ & NH₃ in Wastewater
- Six samples
- Expected to commence late 2008

T063 Safety test for Power Supply Apparatus

- Coordinated by TAF
- Input voltage 100-240 volt, 50-60Hz, 1.2A;Output 12Vdc, 4A
- Properties measured – maximum Temperture (⁰C), Creepage Distance (mm),
Input Power/Current test (W, A), Touch Current (Measured touch current),
Ground Bond (Measured resistance)
- Expected to commence late 2008

T064 Trace Metals in Water

- Coordinated by Standards Malaysia
- Department of Chemistry Malaysia to produce and dispatch samples
- Expected to commence mid 2008