



INTERNATIONAL  
ACCREDITATION  
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# CERTIFICATE OF ACCREDITATION

*This is to attest that*

## SOUTHWEST RESEARCH INSTITUTE

6220 CULEBRA ROAD, BUILDING. 143  
SAN ANTONIO, TEXAS 78238-5166

Testing Laboratory TL-214

has met the requirements of AC89, *IAS Accreditation Criteria for Testing Laboratories*, and has demonstrated compliance with ISO/IEC Standard 17025:2005, *General requirements for the competence of testing and calibration laboratories*. This organization is accredited to provide the services specified in the scope of accreditation maintained on the IAS website ([www.iasonline.org](http://www.iasonline.org)).

*This certificate is valid up to September 1, 2019.*



*This accreditation certificate supersedes any IAS accreditation bearing an earlier effective date. The certificate becomes invalid upon suspension, cancellation or revocation of accreditation. See [www.iasonline.org](http://www.iasonline.org) for current accreditation information, or contact IAS at 562-364-8201.*



*C.P. Ramani*

C.P. Ramani, P.E., C.B.O  
President

International Accreditation Service

# SCOPE OF ACCREDITATION

Southwest Research Institute Fire Technology and Analytical and Environmental Chemistry TL-214  
(Revised January 8, 2015)

Southwest Research Institute Fire Technology and Analytical  
and Environmental Chemistry  
6220 Culebra Road, Building 143  
San Antonio, TX 78238-5166

Mike Dammann  
Director of the Analytical and Environmental Chemistry  
(210) 522-3524

FIELDS OF TESTING	ACCREDITED TEST METHODS
Fire Testing of Building Assemblies	ASTM Standards E 119, E 1529, E 222, E 2307, and E 2816; ISO 834 Part 1 and Parts 4-9; NFPA Standards 251, 268, 285 and 415; UBC Standards 7-1 and 26-9; UL Standards 263, 555, 555C, 1040 and 1709; MIL-PRF-32161; British Standard BS 476, Parts 20-24; IMO Resolutions A.753(18) and A.754(18), IMO FTP Code Annex 1 Part 3; API 607
Fire Testing of Doors	ASTM Standard E 2074; NFPA Standard 252; UBC Standard 7-2; UL Standards 10B and 10C
Fire Testing of Windows	ASTM Standard E 2010; NFPA Standard 257; UBC Standard 7-4; UL Standard 9
Fire Testing of Floor and Roof Coverings	ASTM Standards D 2859, E 108, E 648 and E 970; CAN/ULC-S102.2; EN ISO 9239, Part 1; DOC FF-1-70; NFPA Standards 253, and 256; UBC Standard 15-2, UL Standard 790
Testing of Fire Stops	ASTM Standards E 814 and E 1725; UBC Standard 7-5; UL Standard 1479
Fire Testing of Furniture and Mattresses	ASTM Standards E 1474, E 1537, E 1590 and E 1822; UL Standard 214; CAL TB 106, 116, 117, 121, 129, 133, 603 and 604; IMO FTP Code Annex 1, Parts 8 and 9; 16 CFR Parts 1633 and 1634
Smoke and Toxicity	ABD 0031, BSS 7238, BSS 7239, EPA TO-15, NES 711, NES 713 Issue 3;
Fire Suppression	FM 2000 (Sections 4.7, 4.36 to 4.40 and 4.42), FM 2008 (Sections 4.8, 4.9 and 4.33 to 4.37), FM 4995 (Appendix A), FM 4996 (Appendix C), FM 5560 IMO MSC 265, 848, 913, 1165, 1268 and 1272, MIL-F-24385F; NFPA 10 (Annex G), NFPA 11 (Annex D, G, and H), NFPA 18 (Sections 5.3.4 and 5.3.5), UL 162 (Sections 8 to 14), UL 199 (Sections 30, 31.2 and 57 to 62), UL 711 and UL 2335; ISO 15371
Fire Testing of Interior Finish	ASTM Standards E 84, E 1740, E 2231, E 2404, E 2257, E 2573, E 2579 and E 2599; NFPA Standards 255, 265 and 286; UBC Standards 8-1, 8-2, 26-3 and 26-8; UL Standards 723, 1715, 1887 and 1975; IMO FTP Code Annex 1, Parts 2, 5 and 6; ISO 9705; EN 13823; EB 4013
Fire Testing of Aircraft Compartment Interiors	AITM 2.0007 A; FAR 23.853; FAR 25.853; AITM 3.0005
Flammability	ASTM Standards C 1166, D 568 and D 635; UBC Standard 26-7; UL Standard 94 and 1685; NFPA 701; MIL-DTL-24640B
Small Scale Fire Tests	ASTM Standards D 1929, D 2863, D 3675, D 3801, D 5865, D7309, E 136, E 162, E 662, E 800, E 1317, E 1321 and E 1354; ISO 871, 5659 Part 2, and 5660 Parts 1 and 2; NFPA Standards 258, 259 and 271; UBC Standards 26-1, 26-6, 26-7 and 31-1; IMO FTP Code Annex 1, Parts 1 and 7; EN ISO 1182, 1716 and 11925 Part 2; and SMP-800-C
Physical	ASTM Standards D 2247, D 2898, E 72, E 330, E 331, E 564, and G 153; UBC Standard 7-6; UL Standard 2085
Thermal Transmission	UBC Standard 26-2; ASTM Standard C 518; NFPA 275 Parts 1 and 2
Plastic Automobile Fuel Tanks	ECE R 34.01

February 20, 2014  
Commencement Date



*C. P. Ramani*  
C. P. Ramani, P.E.  
President

Print Date: 1/8/2015

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Telecommunications	ANSI T1.319-2002; Telcordia GR-63-CORE, Issue 4, Sections 5.2 and 5.5.2
Chemistry – Physical Tests	ASTM D 3 EPA 150.1, EPA 1311, EPA 9040C, EPA 9045D, EA 1010A
Chemistry General	EPA 160.1, EPA 160.2, EPA 310.1, EPA 335.4, EPA 340.2, EPA 350.1, EPA 351.2, EPA 365.3, EPA 376.1, EPA 405.1, EPA 410.4, EPA 9012B, EPA 9014, EPA 9030B
Chemistry – Metals	EPA 200.7, EPA 200.8, EPA 200.9, EPA 218.6, EPA 300, EPA 6010C, EPA 6020A, EPA 7062, EPA 7196A, EPA 7199, EPA 7470A, EPA 7471B, EPA 7742, EPA 9056A, EPA 9060A
Chemistry – Organics	EP 5342, EPA 1613, EPA 3038A, EPA 8151A, EPA 8260B, EPA 8270D, EPA 8280B, EPA 8290A, EPA 8330A
Pesticides	EPA 8081B, EPA 8151A TAP-01-0408-094 HPLC Determination of percentage purity and approximate percentage impurities of pesticide products TAP-01-0408-095 Analysis of Pesticide Products by GC/FID and GC/MS PLEASE PROVIDE LISTS OF PESTICIDES ANALYZED BY THESE 4 METHODS TO BE LISTED IN THE SCOPE.
Chemistry – Radioactive	TAP-01-0411-007 Gross Alpha and Gross Beta Determinations TAP-01-0411-013 Analysis of Tritium in Water TAP-01-0411-015 Germanium Gamma Spectrum Analysis of Environmental Matrices TAP-01-0411-019 Analysis of Iodine-129 TAP-01-0411-022 Strontium 89/90 in Various Environmental Matrices TAP-01-0411-043 Thorium and Neptunium Separation in Environmental Matrix TAP-01-0411-044 Uranium, Americium, Curium and Plutonium Separation in Environmental Matrices TAP-01-0411-045 Neodymium Fluoride Precipitation TAP-01-0411-049 Analysis of Technetium – 99 TAP-01-0411-052 Analysis for Total Activity by Liquid Scintillation Counting TAP-01-0411-053 Analysis of Plutonium – 241 TAP-01-0411-054 Tritium and Carbon - 14 Preparation Using Sample Oxidizer TAP-01-0411-055 Analysis of Iron – 55 and Nickel – 59/63 by Liquid Scintillation Counting TAP-01-0411-056 Analysis of Iron -55 and Nickel – 69 by Extended – Range Gamma Analysis TAP-01-0411-057 Analysis of Nickel – 59/63 and Iron – 55 by Anion Exchange Resins TAP-01-0411-058 Separation of Iron – 55 and Nickel - 59/63 with Eichrom Resins
Chemical Warfare Agents	TAP-01-0605-058 Analysis of Soil Samples for L, HD, and HD Byproducts TAP-01-0605-063 Method 8330 Nitroaromatics and Nitroamines (Ordnance) Analysis by High Performance Liquid Chromatography (HPLC) TAP-01-0605-075 Analysis of Solid and Wipe Samples for GB, VX, and HD TAP-01-0605-089 Chemical Agent Decontamination Testing using Sorbent Powder TAP-01-0605-091 LCMS Analysis of Soil, concrete, Liquid (Rinsate), and Wipe Samples for VX TAP-01-0605-094 LCMS Analysis of Wipe, Soil/Solid and Liquid (Rinsate) Samples for MPA, EMPA, DIMP, DMMP, TDG, IMPA and EA-2192

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FIELDS OF TESTING	ACCREDITED TEST METHODS
Uranium Enrichment	ASTM Standards C 787, C 761, C 1474, C 1287 TAP-01-0406-166 Analysis and Specification for Uranium Hexafluoride for Enrichment TAP-01-0406-166A Hydrolysis of UF <sub>6</sub> Samples TAP-01-0406-166B Determination of Uranium in UF <sub>6</sub> TAP-01-0406-166C Analysis of Isotopic Composition of Uranium in UF <sub>6</sub> by ICP-MS TAP-01-0406-166D Determination of Metallic Impurities in UF <sub>6</sub> by ICP-AES TAP-01-0406-166E Determination of Technetium -99 in UF <sub>6</sub> by ICP-MS TAP-01-0406-166H Determination of Silicon in UF <sub>6</sub> TAP-01-0406-166G Determination of Bromide and Chloride in UF <sub>6</sub> TAP-01-0406-166I Determination of Phosphorous in UF <sub>6</sub> TAP-01-0406-166J Preparation of UF <sub>6</sub> Hydrolysates for Metal

Note: TAP – Test/Analytical Procedure.

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