

**2008 Second Quarter Revision Summary of Pages for
Nonresidential Compliance Manual
August 1, 2010**

SUMMARY OF CHANGE	CHAPTER/FORM	PAGE	PAGES REPLACED
Updated Table of Contents	TOC	All	All
Clarification on garages and sheds on third bullet; Note on U occupancies in Table 1-1	Introduction	1-10	1-9, 10
Add LTG-3A reference to second paragraph	5.7.1.1	5-112	5-111,112
Add LTG-3A reference to first paragraph	5.7.3	5-126	5-125,126
New Chapter 7	7	All	All
Added explanation to determine Saturated Condensing Temperature for compound refrigerants	8.3.3	8-13	8-13,14
Add LTG-3A and NA 7.6.1 reference to Indoor Lighting	Table 10-1	10-11	10-11,12
Add LTG-3A to list of Acceptance forms	Appendix A	Summary	Summary
Fixed various footnotes	ENV 3-C	3 of 6	3 of 6
Add LTG-3A next to LTG-2A reference	LTG-1C	2 of 4, 4 of 4	2 of 4, 4 of 4
New LTG-3A Form	LTG-3A	All	All
Correct form reference under block C from LTG-2A to OLTG-2A	OLTG-1C	3 of 4	3 of 4
New MECH-1C-ALT-HVAC Form	MECH-1C-ALT-HVAC	All	All
Change Column L to 300 cfm	MECH-3C	MECH-3C	MECH-3C
Correct Intent statement to TES systems	MECH-15A	2 of 3	2 of 3
New SLTG-1C Form	SLTG-1C	All	All

1.	Introduction	1-1
1.1	Organization and Content.....	1-1
1.2	Related Documents	1-2
1.3	The Technical Chapters	1-2
1.4	Why California Needs Energy Standards	1-2
1.5	What's New for 2008	1-4
1.6	Mandatory Measures and Compliance Approaches.....	1-6
1.6.1	Mandatory Measures.....	1-6
1.6.2	Prescriptive Approach	1-7
1.6.3	Performance Approach	1-7
1.7	Scope and Application.....	1-8
	Building Types Covered.....	1-8
1.7.4	Scope of Improvements Covered.....	1-10
1.7.5	Speculative Buildings	1-10
1.7.6	Mixed Use Buildings	1-12
1.7.7	High-rise Residential	1-13
1.7.8	Hotels and Motels.....	1-14
1.7.9	Live-Work Spaces	1-16
1.7.10	Unconditioned Space	1-16
1.7.11	Newly Conditioned Space	1-17
1.7.12	New Construction in Existing Buildings	1-18
1.7.13	Alterations to Existing Conditioned Spaces.....	1-18
1.7.14	Additions.....	1-21
1.7.15	Changes of Occupancy	1-22
1.7.16	Repairs	1-23
1.7.17	Scope Concepts and Definitions	1-23
1.8	About the Standards.....	1-28
	California Climate Zones	1-29
2.	Compliance and Enforcement	2-1
2.1	Overview.....	2-1
2.2	The Compliance and Enforcement Process	2-2
2.2.1	Design Phase – Certificate of Compliance.....	2-3
2.2.2	Permit Application – Certificate of Compliance	2-4
2.2.3	Plan Check	2-6

2.2.4	Building Permit	2-7
2.2.5	Construction Phase – Installation Certificate.....	2-7
2.2.6	Acceptance Testing – Certificate of Acceptance.....	2-9
2.2.7	HERS Verification – Certificate of Field Verification and Diagnostic Testing	2-13
2.2.8	Final Inspection by the Enforcement Agency and Issuance of the Certificate of Occupancy	2-15
2.2.9	Occupancy Permit	2-15
2.2.10	Occupancy – Compliance, Operating, and Maintenance Information	2-15
2.3	Compliance Documentation	2-15
2.3.1	Construction Documents	2-16
2.3.2	Signing Responsibilities	2-16
2.4	Roles and Responsibilities	2-19
2.4.3	Permit Applicant Responsibilities	2-20
2.4.4	Plans Examiner Responsibilities	2-20
2.4.5	Field Inspector Responsibilities.....	2-20
3.	Building Envelope	3-1
3.1	Overview.....	3-1
3.1.1	Prescriptive Component Envelope Approach.....	3-2
3.1.2	Prescriptive Overall Envelope TDV Energy Approach	3-2
3.1.3	Performance Approach	3-3
3.1.4	What’s New in the 2008 Standards	3-3
3.2	Fenestration.....	3-4
3.2.1	Mandatory Measures.....	3-4
	Certification and Labeling	3-4
	Manufactured (Factory-Assembled) Fenestration Label Certificates.....	3-5
	Default Temporary Label	3-5
	Site-Built Label Certificates.....	3-6
	NFRC’s New Component Modeling Approach (CMA) Product Certification Program and the Energy Standards	3-7
	Compliance for Specifiers.....	3-8
	Field-Fabricated Fenestration.....	3-8
3.2.2	Window Prescriptive Requirements	3-10
	Window U-factor	3-11
	Window Relative Solar Heat Gain	3-12
3.2.3	Skylight Prescriptive Envelope Requirements.....	3-13

Skylight Area.....	3-13
Skylight U-factor	3-14
Skylight SHGC.....	3-15
3.2.4 Daylighting Prescriptive Requirements for Skylights in Large Enclosed Spaces	3-15
3.2.5 Minimum Skylight Area for Large Enclosed Spaces	3-16
A. Daylit Area.....	3-16
B. Minimum Skylight Area or Effective Aperture.....	3-16
C. Skylight Characteristics.....	3-17
D. Controls.....	3-17
E. Exceptions.....	3-17
Designing with Skylights to Meet §143(c) Requirements	3-18
Substituting Skylights with Windows to Meet §143(c) Requirements	3-20
3.2.6 Determining Fenestration U-factors	3-23
Field-Fabricated Fenestration Product or Exterior Door	3-25
3.2.7 Determining Relative Solar Heat Gain	3-26
3.2.8 Determining Solar Heat Gain Coefficients.....	3-28
3.2.9 Determining Visible Transmittance (VT).....	3-30
3.2.10 Site-Built Fenestration Roles and Responsibilities.....	3-31
3.3 Opaque Envelope Insulation	3-33
3.3.1 Mandatory Measures.....	3-34
Certification of Insulation Materials.....	3-34
Urea Formaldehyde Foam Insulation	3-34
Flamespread Rating	3-34
3.3.2 Prescriptive Insulation Requirements.....	3-36
Exterior Roofs and Ceilings	3-37
Exterior Walls.....	3-39
Continuous Insulation	3-42
Demising Walls	3-44
Exterior Floors and Soffits	3-45
Exterior Doors.....	3-47
Additions and Alterations.....	3-47
Roofing Alterations	3-48
3.4 Roofing Products (Cool Roofs).....	3-48
3.4.1 Mandatory Measures.....	3-49
Rating and Labeling.....	3-49

Solar Reflectance, Thermal Emittance, and Solar Reflectance Index (SRI).....	3-49
Performance Requirements for Field Applied Liquid Coatings	3-50
Aluminum-Pigmented Asphalt Roof Coatings.....	3-50
Cement-Based Roof Coatings	3-51
Other Field-Applied Liquid Coatings	3-52
3.4.2 Roofing Products Prescriptive Requirements.....	3-52
3.5 Infiltration and Air Leakage	3-58
3.6 Relocatable Public School Buildings	3-58
Performance Approach.....	3-58
3.7 Overall Envelope TDV Energy Approach	3-59
3.7.1 Overall Envelope TDV Energy Approach Overview	3-60
3.7.2 TDV Energy of the Standard Building – Calculation Details.....	3-64
Step 1 – Set Opaque Areas to Match Proposed Design	3-65
Step 2 – Adjust Fenestration Areas if Necessary	3-65
Step 3 – Use Prescriptive Envelope Criteria from the Standards	3-67
Step 4 – Look Up Weighting Coefficients	3-68
3.7.3 TDV Energy of the Proposed Building – Calculation Details	3-69
Step 6 – Calculate Overall Envelope TDV energy	3-72
3.7.4 Roof Alterations.....	3-75
3.8 Performance Approach.....	3-77
3.8.1 Opaque Surface Mass Characteristics.....	3-77
3.8.2 Opaque Surface	3-78
3.8.3 Fenestration Heat Transfer	3-78
3.8.4 Overhangs and Vertical Shading Fins.....	3-79
3.8.5 Interzone Surfaces	3-79
3.8.6 Slab-on-Grade Floors and Basement Floors.....	3-79
3.8.7 Historic Buildings.....	3-80
3.9 Additions and Alterations	3-80
3.9.1 Mandatory Measures for Additions and Alterations.....	3-81
3.9.2 Additions – Prescriptive Requirements	3-81
3.9.3 Alterations – Prescriptive Requirements	3-81
Replacement Roof Solar Reflectance and Thermal Emittance (Cool Roofs)	3-83
3.10 Compliance Documentation	3-95
Field Inspection Energy Checklist.....	3-95
3.10.1 ENV-1C: Certificate of Compliance and Field Inspection Energy Checklist.....	3-96

ENV-1C Page 1 of 4	3-96
ENV-1C Page 2 of 4	3-98
3.10.2 ENV-2C: Envelope Component Approach	3-105
ENV-2C Page 1 of 4	3-105
ENV-2C Page 2 of 4	3-107
ENV-2C Page 3 of 4	3-109
ENV-2C Page 4 of 4	3-111
Relocatable Public Schools Buildings.....	3-112
3.10.3 ENV-3C: Overall Envelope TDV Energy Approach.....	3-113
ENV-3C Page 1 of 6	3-113
ENV-3C Page 2 of 6 Skylight Area Calculation	3-114
ENV-3C Page 3 of 6 OVERALL ENVELOPE TDV ENERGY APPROACH.....	3-115
ENV-3C Page 4 of 6 TDV for the Proposed Design Building	3-117
ENV-3C Page 5 of 6 Multipliers	3-118
ENV-3C Page 6 of 6 Window Area Adjustment Calculations	3-120
3.10.4 ENV-4C Minimum Skylight Area for Large Enclosed Spaces Worksheets	3-121
ENV-4C Minimum Skylight Area Worksheet (Page 1 of 3).....	3-121
ENV-4C Page 2 of 3	3-122
ENV-4C Page 3 of 3	3-123
4. Mechanical Systems.....	4-1
4.1 Overview.....	4-1
4.1.1 HVAC Energy Use.....	4-2
4.1.2 Mandatory Measures.....	4-2
4.1.3 Prescriptive and Performance Compliance Approaches	4-3
4.2 Equipment Requirements	4-4
4.2.1 Equipment Certification	4-5
4.2.2 Furnace Standby Loss Controls	4-6
4.2.3 Pilot Lights.....	4-6
4.3 Ventilation Requirements	4-9
4.3.1 Natural Ventilation	4-10
4.3.2 Mechanical Ventilation	4-10
4.3.3 Direct Air Transfer	4-17
4.3.4 Distribution of Outdoor Air to Zonal Units.....	4-18
4.3.5 Ventilation System Operation and Controls	4-19
4.3.6 Pre-Occupancy Purge	4-25

4.3.7	Demand Controlled Ventilation.....	4-27
4.3.8	Fan Cycling	4-32
4.3.9	Variable Air Volume (VAV) Changeover Systems.....	4-32
4.3.10	Adjustment of Ventilation Rate	4-33
4.3.11	Miscellaneous Dampers	4-33
4.3.12	Acceptance Requirements	4-33
4.4	Pipe and Duct Distribution Systems	4-35
4.4.1	Mandatory Measures.....	4-35
4.4.2	Prescriptive Requirements	4-42
4.4.3	Acceptance Requirements	4-44
4.5	HVAC System Control Requirements.....	4-45
4.5.1	Mandatory Measures.....	4-45
4.5.2	Prescriptive Requirements	4-57
4.5.3	Acceptance Requirements	4-72
4.6	HVAC System Requirements	4-72
4.6.4	Sizing and Equipment Selection.....	4-73
4.6.5	Load Calculations.....	4-73
4.6.6	Fan Power Consumption	4-76
4.6.7	ECM Motors for Series Style VAV Boxes.....	4-82
4.6.8	Electric-Resistance Heating	4-82
4.6.9	Cooling Tower Flow Turndown.....	4-83
4.6.10	Centrifugal Fan Limitation	4-84
4.6.11	Air Cooled Chillers.....	4-84
4.7	Service Water Heating.....	4-85
4.7.1	Service Water Systems	4-85
4.7.2	Pool and Spa Heating Systems.....	4-87
4.7.3	Service Water Heating Other Than High-rise Residential	4-90
4.8	Performance Approach.....	4-90
4.8.1	Compliance with a Computer Method	4-90
4.8.2	Modeling Mechanical System Components	4-91
4.9	Additions and Alterations.....	4-93
4.9.1	Overview	4-93
4.9.2	Mandatory Measures – Additions and Alterations.....	4-93
4.9.3	Requirements for Additions	4-95
4.9.4	Requirements for Alterations.....	4-96

4.10	Glossary/Reference.....	4-102
4.10.1	Definitions of Efficiency	4-102
4.10.2	Definitions of Spaces and Systems	4-103
4.10.3	Types of Air	4-104
4.10.4	Air Delivery Systems	4-105
4.10.5	Return Plenums.....	4-105
4.10.6	Zone Reheat, Recool and Air Mixing.....	4-106
4.10.7	Economizers.....	4-106
4.10.8	Unusual Sources of Contaminants.....	4-111
4.10.9	Demand Controlled Ventilation.....	4-111
4.10.10	Intermittently Occupied Spaces.....	4-112
4.11	Mechanical Plan Check Documents.....	4-112
4.11.1	MECH-1C: Certificate of Compliance.....	4-114
4.11.2	MECH-2C Overview	4-120
4.11.3	MECH-2C (Page 1 of 3) Air System Requirements	4-121
4.11.4	MECH-2C (Page 2 of 3) Water Side System Requirements	4-124
4.11.5	MECH-2C (Page 3 of 3) Service Hot Water & Pool Requirements	4-125
4.11.6	MECH-3C: Mechanical Ventilation and Reheat	4-126
4.11.7	MECH-4C: Fan Power Consumption	4-128
4.11.8	Mechanical Inspection.....	4-130
4.11.9	Acceptance Requirements	4-130
5.	Indoor Lighting.....	5-1
5.1	Overview.....	5-2
5.1.1	Mandatory measures	5-2
5.1.2	Allowed lighting power	5-2
5.1.3	Actual lighting power (adjusted)	5-3
5.1.4	Lighting Trade-offs	5-3
5.1.5	Forms, Plan Check, Inspection and Acceptance Tests	5-5
5.2	Lighting Design Procedures	5-6
5.2.1	Mandatory Measures.....	5-6
5.2.2	Lighting Power Allowances	5-48
5.2.3	Miscellaneous Applications	5-49
5.3	Prescriptive Approach	5-51
5.3.1	Complete Building Method	5-51
5.3.2	Area Category Method	5-53

5.3.3	Tailored Method	5-60
5.4	Performance Approach.....	5-74
5.5	Calculating the Lighting Power	5-75
5.5.1	Exempt Lighting.....	5-75
5.5.2	Actual Lighting Power Calculation.....	5-77
5.5.3	Determining Luminaire Wattage.....	5-79
5.5.4	Reduction of Wattage Through Controls	5-86
5.6	Additions and Alterations.....	5-98
5.6.1	Mandatory Measures – Additions and Alterations.....	5-98
5.6.2	Prescriptive Measures – Additions	5-99
5.6.3	Prescriptive Measures – Alterations.....	5-99
5.7	Compliance and Enforcement	5-105
5.7.1	Indoor Lighting Compliance Documents	5-105
5.7.2	Installation Certificate	5-125
5.7.3	Certificate of Acceptance	5-126
6.	Outdoor Lighting	6-1
6.1	Overview.....	6-1
6.1.1	History and Background	6-2
6.1.2	Scope and Application.....	6-3
6.1.3	Summary of Requirements.....	6-5
6.2	Mandatory Measures.....	6-8
6.2.1	Certification	6-9
6.2.2	Minimum Lamp Efficacy	6-10
6.2.3	Cut-Off Luminaires	6-11
6.2.4	Automatic Shutoff Controls.....	6-16
6.2.5	Multi-Level Switching.....	6-17
6.3	Lighting Zones and Outdoor Lighting Ordinances	6-19
6.3.1	Overview	6-19
6.3.2	Outdoor Lighting Zones.....	6-19
6.3.3	Lighting Zone Adjustments by Local Jurisdictions.....	6-20
6.3.4	Amending Outdoor Ordinances by Local Jurisdictions.....	6-24
6.4	Outdoor Lighting Power Compliance.....	6-24
6.4.1	Maximum Outdoor Lighting Power	6-25
6.4.2	Illuminated Area	6-25
6.5	General Hardscape Lighting Power Allowance	6-26

6.5.1	General Hardscape Power Trade-Offs.....	6-26
6.5.2	Area Wattage Allowances (AWA).....	6-27
6.5.3	Linear Wattage Allowances (LWA).....	6-27
6.5.4	Initial Wattage Allowances (IWA).....	6-27
6.6	Additional Light Power Allowance by Applications.....	6-30
6.6.1	Specific Allowances Power Trade-Offs Not Allowed.....	6-31
6.6.2	Wattage Allowance per Application (watts).....	6-31
6.6.3	Wattage Allowance per Unit Length (w/linear ft).....	6-31
6.6.4	Wattage Allowance per Hardscape Area (W/ ft ²).....	6-31
6.6.5	Wattage Allowance per Specific Area (W/ ft ²).....	6-32
6.6.6	Further Discussion about Additional Lighting Power Allowance for Specific Applications.....	6-33
6.7	Lighting Power Allowance for Ordinance Requirements.....	6-45
6.7.1	Local Lighting Ordinance Allowances Power Trade-Offs.....	6-45
6.7.2	Additional Lighting Power.....	6-45
6.8	Alterations and Additions for Outdoor Lighting.....	6-48
6.8.1	Outdoor Lighting Additions – Mandatory and Lighting Power Density Requirements.....	6-49
6.8.2	Outdoor Lighting Alterations.....	6-50
6.8.3	Outdoor Lighting Alterations – Mandatory Requirements.....	6-50
6.8.4	Outdoor Lighting Alterations – Lighting Power Allowance Requirements.....	6-50
6.8.5	Outdoor Lighting Alterations – Adding Outdoor Lighting to Existing Sites.....	6-52
6.9	Compliance and Enforcement.....	6-55
6.9.1	Outdoor Lighting Plan Check Documents.....	6-55
6.9.2	OLTG-1C: Certificate of Compliance.....	6-55
6.9.3	OLTG-2C.....	6-60
6.9.4	Installation Certificate OTLG-INST.....	6-64
6.9.5	Certificate of Acceptance.....	6-65
7	Sign Lighting.....	7-1
7.1	Overview.....	7-1
7.1.1	History and Background.....	7-1
7.1.2	Scope and Application.....	7-1
7.1.3	No Trade-offs.....	7-1
7.1.4	Summary of Requirements.....	7-2
7.1.5	Validating Compliance With A Label.....	7-4

7.2	Mandatory Measures.....	7-5
7.2.1	Certification of Sign Lighting Controls	7-6
7.2.2	Automatic Sign Lighting Controls	7-6
7.2.3	Dimming Controls.....	7-7
7.2.4	Demand Responsive Electronic Message Center Controls.....	7-7
7.3	Sign Lighting Energy Requirements	7-10
7.3.1	Watts Per Square Foot Approach	7-10
7.3.2	Specific Technology Approach.....	7-12
7.3.3	Additions and Alterations.....	7-17
7.3.4	Sign Alterations	7-17
7.4	Sign Lighting Plan Check Documents	7-19
7.4.1	SLTG-1C: Certificate of Compliance (Sign Lighting)	7-19
7.5	Lighting Inspection.....	7-28
8.	Refrigerated Warehouses.....	8-1
8.1	Introduction.....	8-1
8.1.1	Organization and Content	8-1
8.1.2	Mandatory Measures and Compliance Approaches	8-1
8.1.3	Scope and Application.....	8-1
8.2	Building Envelope.....	8-3
8.2.1	Opaque Envelope Insulation	8-3
8.2.2	Underfloor Heating	8-4
8.3	Mechanical Systems.....	8-5
8.3.1	Overview	8-5
8.3.2	Evaporators	8-8
8.3.3	Condensers	8-13
8.3.4	Compressors	8-18
8.4	Additions and Alterations.....	8-21
8.5	Compliance Documentation	8-23
	Field Inspection Energy Checklist.....	8-23
	RWH-1C Refrigerated Warehouses (Page 1 of 3).....	8-23
	RWH-1C (Page 2 of 3) Envelope Requirements	8-26
	RWH-1C (Page 3 of 3) Refrigeration System Requirements.....	8-26
9.	Performance Approach.....	9-1
9.1	Performance Concepts.....	9-1
9.1.1	Minimum Capabilities	9-2

9.1.2	California Energy Commission Approval.....	9-2
9.1.3	Time Dependent Valuation (TDV)	9-2
9.2	Analysis Procedure.....	9-5
9.2.1	General Procedure	9-5
9.2.2	Basic Data Entry.....	9-6
9.2.3	Calculating TDV Energy	9-7
9.3	Application Scenarios	9-8
9.3.1	Whole Building Compliance	9-8
9.3.2	Compliance by Permit Stage.....	9-9
9.3.3	Additions Performance Compliance	9-10
9.3.4	Alterations Performance Compliance.....	9-12
9.3.5	Alternate Performance Compliance Approach	9-15
9.4	Enforcement and Compliance	9-15
9.4.1	Approaches	9-17
9.4.2	Compliance Forms	9-18
9.4.3	Performance Inspection	9-19
10.	Acceptance Requirements	10-1
10.2	Overview.....	10-1
10.2.2	Roles and Responsibilities	10-3
10.2.3	When Are Acceptance Tests Required?	10-4
10.2.4	Why Test for Acceptance?	10-7
10.3	Acceptance Testing Process	10-8
10.3.1	Plan Review	10-8
10.3.2	Construction Inspection.....	10-9
10.3.3	Functional Testing	10-9
10.3.4	Certificate of Occupancy	10-10
10.4	Forms	10-10
10.5	Envelope & Mechanical Acceptance Testing Overview	10-12
10.5.1	Administrative Regulations.....	10-12
10.5.2	Field Process.....	10-12
10.5.3	Envelope and Mechanical Acceptance Test Issues	10-13
10.5.4	Sensor Calibration.....	10-16
10.5.5	Air and Water Measurements.....	10-17
10.5.6	Factory Air Economizer Certification Procedure	10-17
10.6	Lighting Acceptance Testing Overview	10-18

10.6.1	Administrative Regulations	10-18
10.6.2	Constructability Plan Review	10-18
10.6.3	Field Process.....	10-19
10.6.4	Lighting Acceptance Test Issues.....	10-19
10.7	Test Procedures for Envelope & Mechanical Systems.....	10-20
10.7.5	NA7.5.1.1 Ventilation Systems: Variable Air and Constant Volume Systems...	10-22
10.7.6	Test Procedure: NA7.5.1.1 Ventilation Systems: Variable Air Volume Systems, Use MECH-2A	10-23
10.7.7	NA7.5.1.2 Constant Volume Systems Outdoor Air Acceptance	10-26
10.7.8	Test Procedure: NA7.5.1.2 Constant Volume Systems Outdoor Air Acceptance, Use Form MECH-2A	10-28
10.7.9	NA7.5.2 Constant Volume, Single-zone, Unitary Air Conditioner and Heat Pumps Systems Acceptance	10-29
10.7.10	Test Procedure: NA7.5.2 Constant Volume, Single-zone, Unitary Air Conditioner and Heat Pumps Systems Acceptance, Use Form MECH-3A.....	10-31
10.7.11	NA7.5.3 Air Distribution Systems Acceptance	10-35
10.7.12	Test Procedure: NA7.5.3 Air Distribution Systems Acceptance, Use Form MECH- 4A.....	10-37
10.7.13	NA7.5.4 Air Economizer Controls Acceptance	10-44
10.7.14	Test Procedure: NA7.5.4 Air Economizer Acceptance, Use Form MECH-5A..	10-46
10.7.15	NA7.5.5 Demand-controlled Ventilation Systems Acceptance.....	10-53
10.7.16	Test Procedure: NA7.5.5 Demand Controlled Ventilation Systems Acceptance, Use Form MECH-6A	10-55
10.7.17	NA7.5.6 Supply Fan Variable Flow Controls Acceptance	10-58
10.7.18	Test Procedure: NA7.5.6 Supply Fan Variable Flow Controls Acceptance, Use Form MECH-7A	10-59
10.7.19	NA7.5.7 Valve Leakage Acceptance.....	10-61
10.7.20	Test Procedure: NA7.5.9 Valve Leakage Test, Use Form MECH-8A)	10-62
10.7.21	NA7.5.8 Supply Water Temperature Reset Controls Acceptance.....	10-64
10.7.22	Test Procedure: NA7.5.8 Supply Water Temperature Reset Controls Acceptance, Use Form MECH-9A	10-65
10.7.23	NA7.5.9 Hydronic System Variable Flow Control Acceptance	10-68
10.7.24	Test Procedure: NA7.5.9 Hydronic System Variable Flow Control Acceptance , Use Form MECH-10A	10-69
10.7.25	NA7.5.10 Automatic Demand Shed Control Acceptance	10-71
10.7.26	Test Procedure: NA7.5.10 Automatic Demand Shed Control Acceptance.....	10-71
10.7.27	NA7.5.11 Fault Detection and Diagnostics (FDD) for Packaged Direct-Expansion (DX) Units Control Acceptance	10-72

Functional Testing	10-75
10.7.28 NA7.5.12 FDD for Air Handling Units and Zone Terminal Units Acceptance	10-78
10.7.29 NA7.5.13 Distributed Energy Storage DX AC System Acceptance.....	10-82
10.7.30 NA7.5.14 Thermal Energy Storage (TES) System Acceptance	10-85
10.8 Test Procedures for Indoor & Outdoor Lighting.....	10-88
10.8.1 NA7.6.1 Automatic Daylighting Control Acceptance	10-89
10.8.2 Test Procedures: NA7.6.1 Automatic Daylighting Control Acceptance, Use Form LTG-3A	10-94
10.8.3 NA7.6.2 Occupancy Sensor Acceptance	10-112
10.8.4 Test Procedure: NA7.6.2 Occupancy Sensor Acceptance, Use form LTG-2A	10-113
10.8.5 NA7.6.3 Manual Daylighting Control Acceptance	10-116
10.8.6 Test Procedures: NA7.6.3 Manual Daylighting Control Acceptance, Use form LTG- 2A.....	10-117
10.8.7 NA7.6.4 Automatic Time Switch Control Acceptance	10-118
10.8.8 (NA7.7) Outdoor Lighting Shut-off Controls	10-122
10.9 Envelope & Mechanical Acceptance Forms	10-125
Envelope.....	10-126
Mechanical.....	10-127
10.10 Lighting Forms for Acceptance Requirements.....	10-143
10.11 Outdoor Lighting Forms for Acceptance Requirements.....	10-145
Appendix A Compliance Forms and Worksheets	
Appendix B Excerpts from the Appliance Efficiency Regulations	