

2010 OCEC MATRIX
ENERGY CONSERVATION STATE BUILDING CODE PROVISIONS
 Last Updated July 1, 2009

EXISTING LIGHTING RELATED PROVISIONS ([Chapter 13](#))

Item Number	Description: Code Section & Topic	Proponent/ Affiliation	Comments
1313.1	Discusses scope / applicability of requirements	N/A	No changes recommended
1313.2	Specifies the methods for how luminaire wattage is to be calculated	N/A	No changes recommended
1313.3	Outlines the lighting controls that are required based on size and use of structure	N/A	No changes recommended
1313.3.1	States the following controls are applicable to INTERIOR lighted spaces	N/A	No changes recommended
1313.3.1.1	Local shutoff control threshold	N/A	No changes recommended
1313.3.1.2	Automatic shutoff control thresholds	N/A	Committee modified - see Recommendation #02
1313.3.1.2.1	Occupancy sensor control requirements	N/A	No changes recommended
1313.3.1.2.2	Automatic time switch control requirements	N/A	No changes recommended
1313.3.1.3	Daylight control general - classrooms and atriums	N/A	No changes recommended
1313.3.1.3.1	Daylight controls for windows	N/A	Committee modified - see Recommendation #03
1313.3.1.3.2	Daylighting controls for skylights	N/A	Committee modified - see Recommendation #03
1313.3.1.3.3	Automatic daylight sensing controls	N/A	No changes recommended
1313.3.2	Exterior and canopy lighting controls	N/A	No changes recommended
1313.4	General provisions referencing interior light power allowances	N/A	No changes recommended
1313.4.1	Provision for Tenant space power allowance method	N/A	No changes recommended
1313.4.2	Provisions for space - by - space power allowance method	N/A	No changes recommended

1313.4.2.1.1	Additional light power allowance for retail displays	N/A	Committee modified - see Recommendation #04
1313.5	Exterior lighting source provisions	N/A	Committee modified - see Recommendation #05
1313.6	Lighting provisions for alterations or additions	N/A	Proposal 10-21 rennumbers as 1313.1.1.2 committee modified threshold see Recommendation #01
Table 13-G	Tenant space light power density allowance table	N/A	No changes recommended
Table 13-H	Space - by - space light power density allowance Table	N/A	No changes recommended

EXISTING EXTERIOR ENVELOPE PROVISIONS [\(Chapter 13\)](#)

Item Number	Description: Code Section & Topic	Proponent/ Affiliation	Comments
	****OTHER BUILDINGS****		
1311.1	Whole building approach provision	N/A	No Changes recommended.
1311.2	Documentation	N/A	New "Optional compliance approach" proposal - committee recommended language to be modified.
1312.1	Provides scope of applicability and exceptions	N/A	No changes recommended.
1312.1.1	Air leakage provisions: Caulking, gaskets, weather stripping etc.	N/A	Option 1 was preferred over Option 2. Changes recommended to "loading dock weather seal" language
1312.1.2	Insulation materials and installation	N/A	No changes recommended
1312.1.2.1	Suspended ceilings	N/A	No changes recommended
1312.1.2.2	Recessed light fixtures	N/A	No changes recommended
1312.1.2.3	Batt insulation - Installation	N/A	No changes recommended
1312.1.2.4	Heated slabs-on-grade - insulation requirements	N/A	No changes recommended
1312.1.3	Windows and doors - reference to performance requirements	N/A	No changes recommended
1312.1.3.1	U-factors - references acceptable standards for evaluation	N/A	No changes recommended
1312.1.3.2	Shading coefficient - references acceptable standards for evaluation	N/A	No changes recommended

1312.1.4	Moisture control - requires vapor retarder	N/A	Alan provided a revised document showing how moisture control is captured in Chapter 14 of the 2009 IBC.
1312.2	Thermal performance - general requirement	N/A	No changes recommended.
1312.2.1	Prescriptive path approach	N/A	No changes recommended.
Table 13-E (1312.2.1(1))	Envelope Prescriptive Path, Other Buildings - Climate Zone 1	N/A	Committee recommended Table be reformatted. Committee would like to hear from industry in regard to windows and thermal break frame requirement.
Table 13-F	Envelope Prescriptive Path, Other Buildings - Climate Zone 2	N/A	No changes recommended in regard to Component values. Concerns over the application of continuous insulation
1312.2.2	Simplified trade-off approach	N/A	No changes recommended.
1312.3	Additions and Alterations	N/A	(Now located in Section 1312.2) No changes recommended
1312.3.1	Additions. Provides scope of applicability to additions	N/A	(Now located in Section 1312.2.1) No changes recommended.
1312.3.2	Alterations. Provides scope of applicability to alterations		(Now located in Section 1312.2.2) No changes recommended.

EXISTING MECHANICAL PROVISIONS [\(Chapter 13\)](#)

Item Number	Description: Code Section & Topic	Proponent/ Affiliation	Comments
**** OTHER BUILDINGS****			
1314	Piping insulation - Other buildings	N/A	No changes proposed
1314.1	Scope / applicability	N/A	No changes proposed
1314.2	Alterations - applicability	N/A	No changes proposed
1315	Service water heating	N/A	No changes proposed
1315.1	Applicability / scope	N/A	No changes recommended to proposed language (OSSC10-01)
Table 13-I	Water heating equipment - Minimum performance	N/A	Table modification as proposed in OSSC10-01
1315.2	Reference to related requirements	N/A	No changes proposed
1315.3	Non-circulating system requirements	N/A	No changes proposed
1315.4	Controls	N/A	No changes proposed

1315.4.1	Pump operation - required controls	N/A	Committee recommended providing option to use time switch in some applications (modify OSSC10-01)
1315.4.2	Electric heat tape provisions	N/A	No changes recommended to proposed language (OSSC10-01)
1315.5	Scoping for Swimming pool, hot tub and spa provisions	N/A	No changes proposed
1315.5.1	Hot tub and spa controls	N/A	No changes proposed
1315.5.2	Requirement for a cover on pools, hot tubs and spas	N/A	No changes proposed
1315.5.3	Heat recovery - threshold	N/A	Modification recommended to exception #1 of proposed language (OSSC10-02)
1315.6	Alterations - applicability	N/A	No changes proposed
1316	Other Equipment	N/A	No changes proposed
1316.1	Distribution Transformers	N/A	No changes proposed
1316.1.1	Energy efficiency - distribution transformer efficiency specification	N/A	No changes proposed
Table 13-J	NEMA Class 1 efficiency levels for liquid-filled distribution transformers	N/A	No changes proposed
Table 13-K	NEMA Class1 efficiency levels for dry-type distribution transformers	N/A	No changes proposed
1316.1.2	Testing standard for distribution transformers	N/A	No changes proposed
1316.1.3	Labeling standards for distribution transformers	N/A	No changes proposed
1316.1.4	Alterations - applicability	N/A	No changes proposed
1317	HVAC - other buildings	N/A	No changes proposed
1317.1	General - scoping	N/A	No changes proposed
1317.2	Mechanical ventilation - Reference to the OMSC and specific provisions	N/A	No changes proposed
1317.2.1	Requirements for certain size fume hoods	N/A	Clarification recommended by committee to proposal OSSC 10-03 with regard to optional efficiency credit only can be used for one trade-off
1317.2.2	Ventilation control requirements for high occupancy areas	N/A	No changes recommended to proposed language (OSSC10-04)

1317.2.3	Ventilation control requirements for enclosed parking garages	N/A	Discussion on making sure the ventilation levels proposed in OSSC10-04 do not conflict with those established in the OMSC
1317.3	Economizer cooling - threshold	N/A	No changes recommended to proposed language (OSSC10-05)
1317.3.1	Pressure relief requirement	N/A	No changes recommended to proposed language (OSSC10-05)
1317.3.2	Integration of economizer	N/A	No changes recommended to proposed language (OSSC10-05)
1317.4	HVAC controls	N/A	No changes proposed
1317.4.1	System control requirement	N/A	No changes proposed
1317.4.2	Zone temperature control requirement	N/A	Committee recommended language clarification to proposed language (OSSC10-06)
1317.4.2.1	Specific capability required of controls	N/A	No changes proposed
1317.4.3	Off-hour controls for HVAC systems	N/A	No changes proposed
1317.4.3.1	Automatic shutdown provisions	N/A	No changes proposed
1317.4.3.2	Optimum start control provisions	N/A	No changes recommended to proposed language (OSSC10-08)
1317.4.3.3	Motorized damper requirements	N/A	No changes recommended to proposed language (OSSC10-04)
1317.4.3.3.1	Damper shutoff requirements	N/A	No changes proposed
1317.4.3.3.2	Motorized damper requirements	N/A	No changes recommended to proposed language (OSSC10-04)
1317.4.4	Requirement for heat pump controls	N/A	No changes recommended to proposed language (OSSC10-09)
1317.5	Equipment performance	N/A	No changes recommended to proposed language (OSSC10-10)
1317.5.1	Performance requirements for electric equipment	N/A	No changes recommended to proposed language (OSSC10-10)
Table 13-L	Electrically operated unitary air conditioners and condensing units - min. efficiency reqt's	N/A	No changes recommended to proposed language (OSSC10-10)
Table 13-M	Electrically operated unitary and applied heat pumps - min. efficiency reqt's	N/A	No changes recommended to proposed language (OSSC10-10)

Table 13-N	Electrically operated packaged terminal air conditioners (PTAC) and packaged heat pump (PTHP) - min efficiency reqt's	N/A	No changes recommended to proposed language (OSSC10-10)
Table 13-O	Water chilling packages - min. efficiency reqt's	N/A	No changes recommended to proposed language (OSSC10-10)
1317.5.2	Combustion heating equipment	N/A	No changes recommended to proposed language (OSSC10-10)
Table 13- P	Warm air furnaces and combination warm air furnaces/air-conditioning units, warm air duct furnaces and unit heaters - min efficiency reqt's	N/A	No changes recommended to proposed language (OSSC10-10)
Table 13-Q	Boilers, gas and oil - fired - min. efficiency reqt's	N/A	
1317.5.3	Heat-operated cooling equipment min. efficiency	N/A	No changes recommended to proposed language (OSSC10-10)
1317.5.4.1	Heat rejection equipment used in comfort cooling systems	N/A	No changes recommended to proposed language (OSSC10-10)
Table 13-R	Heat rejection equipment - min. efficiency reqt's	N/A	No changes recommended to proposed language (OSSC10-10)
1317.5.4.2	Variable flow controls for cooling tower fans	N/A	No changes recommended to proposed language (OSSC10-10)
1317.6	Piping insulation - references back to Section 1314	N/A	No changes proposed
1317.7	Duct insulation requirements	N/A	No changes proposed
Table 13-S	Minimum insulation R-value for HVAC duct systems in other buildings	N/A	No changes proposed
1317.8	Duct sealing - references the OMSC	N/A	concern over duct-testing low-pressure systems and exposed ducts within the zone. Modify to exempt those areas.
1317.9	Simple HVAC system - scope / defined	N/A	No changes recommended to proposed language (OSSC10-17)
1317.1	Complex HVAC system - scope / defined	N/A	No changes proposed
1317.10.1	Complex system control requirement	N/A	No changes proposed
1317.10.2	Reference to requirements for efficiency for complex systems	N/A	No changes proposed
1317.10.3	Electric motor efficiency for those serving in built-up HVAC systems	N/A	No changes proposed

Table 13-T	Energy efficient electric motors nominal full-load efficiency	N/A	No changes recommended to proposed language (OSSC10-12)
1317.10.3.1	Variable speed drive requirement for fan and pump motors	N/A	Committee recommended re-locating motor language also add effective date for DX from ASHREA
1317.11	Kitchen hood make-up air requirements	N/A	Section modified further in new proposal. Amended by committee to allow more
1317.12	Permanently installed heating systems outside a building - controls	N/A	No changes proposed
1317.13	Alterations and additions of HVAC systems	N/A	No changes recommended to proposed language (OSSC10-15)
1318.1	Purpose statement for complex design requirements section	N/A	No changes proposed
1318.2	Controls - section title	N/A	No changes proposed
1318.2.1	Simultaneous heating and cooling - control requirements	N/A	Comments on 50% allowance in Exception 1, recommendation to reduce to 30%
1318.2.2	Humidity control requirement	N/A	No changes recommended to proposed language (OSSC10-17)
1318.2.3	Variable air volume system static pressure reset controls	N/A	Discussion on enforceability - no recommended changes
1318.2.4	Chilled and hot water temperature reset controls	N/A	No changes recommended to proposed language (OSSC10-17)
1318.2.5	Supply-air temperature reset controls for multiple zone HVAC systems	N/A	No changes recommended to proposed language (OSSC10-17)
1318.2.6	Zone isolation control requirement	N/A	No changes proposed
1318.2.7	Separate air distribution systems - requirements	N/A	No changes recommended to proposed language (OSSC10-18)
1318.2.8	Hydronic system controls - applicability	N/A	No changes proposed
1318.2.8.1	Three - pipe system requirement	N/A	No changes proposed
1318.2.8.2	Two-pipe changeover system provisions	N/A	No changes proposed
1318.2.8.4	Variable flow controls - pumps 10hp and greater	N/A	No changes proposed

1318.3	Exhaust air-heat recovery - scope / applicability	N/A	Clarification recommended by the committee to exception 8 added by OSSC10-04
1318.4.	Complex systems equipment performance - section title	N/A	No changes proposed
1318.4.1	Service water heating functions provided by space heating/cooling equipment - performance	N/A	No changes proposed
1318.4.2	Air transport energy - limits	N/A	Deleted
1318.4.2.1	Constant volume fan system - limits	N/A	Proposal 10-20. See 1318.2
1318.4.2.2	Variable air volume (VAV) systems - limits	N/A	Deleted
1318.4.2.3	Selecting and sizing nameplate motor horsepower - limits	N/A	No changes recommended to proposed language (OSSC10-20)
1318.4.2.4	Large volume fan systems - airflow reduction requirement	N/A	No changes recommended to proposed language (OSSC10-20)

NEW AMENDMENT PROPOSALS (PUBLIC)

Item Number	Description: Code Section & Topic	Proponent/ Affiliation	Comments
OMSC10-01	Updates reference in OMSC from ASHRAE 62-2001 to ANSI/ASHRAE 62.1 2007 and 62.2-2007	PECI	MECHANICAL (Proposal amends OMSC)
OSSC10-01	Updates reference in OSSC from ASHRAE 62-2001 to ANSI/ASHRAE 62.1 2007 and 62.2-2007	PECI	MECHANICAL
OSSC10-02	Adds heat recovery system requirements	PECI	MECHANICAL
OSSC10-03	Amends ventilation requirements	PECI	MECHANICAL
OSSC10-04	Adds language for Refrigerated warehouses addressing insulation,condensors,compressors etc.	PECI	ENVELOPE (Sections 1302, 1312.2) Committee recommended deferring the envelope portion of this proposal until the mechanical portion is discussed.
OSSC10-04	Adds language for Refrigerated warehouses addressing insulation,condensors,compressors etc.	PECI	MECHANICAL (Sections 1317)
OSSC10-05	Modifies when economizers are required and associated controls	PECI	MECHANICAL
OSSC10-06	Amends zone temperature control requirements	PECI	MECHANICAL
OSSC10-07	Adds new section addressing Hot water pump control	PECI	MECHANICAL
OSSC10-08	Requires all HVAC systems have controls capable of varying start-up	PECI	MECHANICAL
OSSC10-09	Amends heat pump control requirements	PECI	MECHANICAL
OSSC10-10	Amends equipment performance requirements / requires heat pumps	PECI	MECHANICAL
OSSC10-11	Adds new requirement - duct leakage testing	PECI	MECHANICAL
OSSC10-12	Increases minimum efficiency of electric motors and amends thresholds for requirements	PECI	MECHANICAL
OSSC10-13	Adds language limiting use of air-cooled chillers	PECI	MECHANICAL
OSSC10-14	Adds requirement for kitchen exhaust controls and amends threshold	PECI	MECHANICAL
OSSC10-15	Amends alteration / addition to existing building language. Also Adds vestibule/air curtain language	PECI	MECHANICAL
OSSC10-16	Adds hydronic pipe design requirements	PECI	MECHANICAL
OSSC10-17	Amends requirements for complex controls	PECI	MECHANICAL

OSSC10-18	Amends threshold for separate systems or zone control	PECI	MECHANICAL
OSSC10-19	Amends control requirements for hydronic flow systems and reduces pump motor thresholds	PECI	MECHANICAL
OSSC10-20	Amends fan system power limits and efficiency	PECI	MECHANICAL
OSSC10-21	Amends lighting power density allowances and amends impact on alterations to existing buildings	Lighting Design Lab	LIGHTING
OSSC10-22	Amends light power density allowances for exterior lighting applications	Lighting Design Lab	LIGHTING