# WASHINGTON STATE BUILDING CODE COUNCIL APPLICATION FOR REVIEW OF A PROPOSED STATEWIDE AMENDMENT TO THE WASHINGTON STATE BUILDING CODE

	2012 Code P	Adoption Cycle	
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	PLEASE FOLLOW INSTI	RUCTIONS ON PAGE FI	VE
Rui	ilding Code to be Amended:		
Du	numg coue to be immended.		
X	International Building Code	State Energy Code	;
	International Residential Code	International Mecl	nanical Code
	ICC ANSI A117.1 Accessibility Code	International Fuel	Gas Code
	International Fire Code	NFPA 54 National	Fuel Gas Code
	Uniform Plumbing Code	NFPA 58 Liquefie	d Petroleum Gas Code
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Eric	Vander Mey, P.E., LEED AP		March 1 2012
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<b>Code:</b> 2012 IBC	Section:	Table 509	<b>Page:</b> 104
Amend section to read as follows:			
		LE 509 ITAL USES	
ROOM OR AREA		SE	PARATION AND/OR PROTECTION
pe Transformers Installed Indoors over 112.5 kV a fire resistant room per NEC (NFPA 70) Secti		1 hour or provide au	tomatic sprinkler system
square foot = $0.0929 \text{ m}_2$ , 1 pound per square inch (ps $3.785 \text{ L}$ .	si) = 6.9  kPa, 1  Britis	sh thermal unit (Btu) per ho	pur = 0.293 watts, 1 horsepower = 746 watts, 1
.763 L.			
dditional pages attached?	<del>Yes</del>		No
annonai pagos attacheu:	103		110
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Supporting Data for Statewide Amendment Proposals. This information is required for all statewide amendment proposals. <u>Attach supporting documentation</u>, as necessary; incomplete proposals will not be <u>accepted</u>.

The SBCC requires supporting data on any amendment proposal to show:

- 1. That it meets basic criteria See Part I to specify how this proposal meets the criteria for code amendment.
- 2. The intended effect—See Part II to describe the purpose of the proposed amendment, including the benefits and the problems addressed.
- 3. The potential impacts or benefits to business—See Part III/Types of Construction, to explain how methods in construction businesses, industries and services would be affected.
- 4. The potential impact on enforcement procedures, See Part III/Types of Services Required, to provide some analysis of the impacts on code enforcement in local jurisdictions.
- 5. Economic costs and benefits Use the Table in Part IV of this form to estimate the costs and benefits of the proposal on construction practices, users and/or the public, the enforcement community, and operation and maintenance.

### Part I & Background information on amendment.

Code References:			Incidental Use		
Related codes:	2008 NEC Section 450.21(	(Does th	nis amendment change other related	codes?)	
Proponent:	Eric Vander Mey	Phone:	206-285-7114	Date:	3/1/2012

**NOTE:** State-wide and emergency state-wide amendments to the state building code must be based on one of the following criteria; please indicate the pertinent rationale for the proposed amendment by selecting from the list below:

- (1) The amendment is needed to address a critical life/safety need.
- (2) The amendment is needed to address a specific state policy or statute.
- (3) The amendment is needed for consistency with state or federal regulations.
- (4) The amendment is needed to address a unique character of the state.
- (5) The amendment corrects errors and omissions.

## 

PROBLEM(S) ADDRESSED (Describe the intended effect of the proposed code amendment):

This amendment is provided for correlation between 2008 NEC (NFPA 70) and the IBC.

Dry type transformers located indoors are required to be in a 1 hour fire resistant room.

The building code does not specify what type of rated wall is required for these rooms.

This amendment is intended to specify that a fire barrier is required.

See excerpt from 2008 NEC below:

## II. Specific Provisions Applicable to Different Types of Transformers

## 450.21 Dry-Type Transformers Installed Indoors

(A) Not over 112½ kVA. Dry-type transformers installed indoors and rated 112½ kVA or less shall have a separation of at least 300 mm (12 in.) from combustible material unless separated from the combustible material by a fire-resistant, heat-insulated barrier.

Exception: This rule shall not apply to transformers rated for 600 volts, nominal, or less that are completely enclosed, with or without ventilating openings.

(B) Over 112½ kVA. Individual dry-type transformers of more than 112½ kVA rating shall be installed in a transformer room of fire-resistant construction. Unless specified otherwise in this article, the term *fire resistant* means a construction having a minimum fire rating of 1 hour.

Exception No. 1: Transformers with Class 155 or higher insulation systems and separated from combustible material by a fire-resistant, heat-insulating barrier or by not less than 1.83 m (6 ft) horizontally and 3.7 m (12 ft) vertically.

Exception No. 2: Transformers with Class 155 or higher insulation systems and completely enclosed except for ventilating openings.

PRIMARY REASON FOR AMENDMENT: (Describe how the amendment meets one of the criteria listed above)

This amendment corrects errors and omissions. Clarifies existing code language to improve enforcement.

#### TYPE OF BENEFITS PROJECTED:

All occupancies.			

TYPES OF CONSTRUCTION: ☑ New Construction ☐ Residential-Single Family ☑ Residential-Multi Family ☑ Commercial ☐ Industrial  List businesses/industries affected by amendment:  Manufacturers: N/A Specific Construction Contractors & Trades: N/A Construction Supply Industry: N/A Specialty Trades: N/A Types of Buildings: All types Fire Protection Industry: N/A  TYPES OF SERVICES REQUIRED:  ☑ Reporting. Brief Description:  No impact.  ☐ Other. Brief Description:	Part III & Amendment Impacts or Benefits:					
List businesses/industries affected by amendment:  Manufacturers: N/A Specific Construction Contractors & Trades: N/A Construction Supply Industry: N/A Specialty Trades: N/A Types of Buildings: All types Fire Protection Industry: N/A  TYPES OF SERVICES REQUIRED:    Reporting. Brief Description:  No impact.   Record Keeping. Brief Description:  No impact.		1 1				
Manufacturers:  Specific Construction Contractors & Trades:  Construction Supply Industry:  N/A  Specialty Trades:  N/A  Types of Buildings: Fire Protection Industry:  N/A  TYPES OF SERVICES REQUIRED:  Reporting. Brief Description:  No impact.	☐ Residential-Single Family ☐ Residential-Mult	i Family  ☐ Commercial ☐ Industrial				
Manufacturers:  N/A  Specific Construction Contractors & Trades:  N/A  Construction Supply Industry:  N/A  Specialty Trades:  N/A  Types of Buildings:  Fire Protection Industry:  N/A  TYPES OF SERVICES REQUIRED:  Reporting. Brief Description:  No impact.						
Specific Construction Contractors & Trades:  Construction Supply Industry:  N/A  Specialty Trades:  N/A  Types of Buildings: Fire Protection Industry:  N/A  TYPES OF SERVICES REQUIRED:  Reporting. Brief Description:  No impact.  Record Keeping. Brief Description:  No impact.	List businesses/industries affected by amend	lment:				
Specific Construction Contractors & Trades:  Construction Supply Industry:  N/A  Specialty Trades:  N/A  Types of Buildings: Fire Protection Industry:  N/A  TYPES OF SERVICES REQUIRED:  Reporting. Brief Description:  No impact.  Record Keeping. Brief Description:  No impact.	Manufacturan	NI/A				
Construction Supply Industry:  Specialty Trades:  Types of Buildings: Fire Protection Industry:  M/A  All types  N/A  TYPES OF SERVICES REQUIRED:  Reporting. Brief Description:  No impact.  Record Keeping. Brief Description:  No impact.						
Specialty Trades:  Types of Buildings: Fire Protection Industry:  All types  N/A  TYPES OF SERVICES REQUIRED:  Reporting. Brief Description:  No impact.  Record Keeping. Brief Description:  No impact.	•					
Types of Buildings:  Fire Protection Industry:  All types  N/A   TYPES OF SERVICES REQUIRED:  Reporting. Brief Description:  No impact.  Record Keeping. Brief Description:  No impact.	** *	"				
Fire Protection Industry:  N/A  TYPES OF SERVICES REQUIRED:  Reporting. Brief Description:  No impact.  Record Keeping. Brief Description:  No impact.	• •					
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☑ **Indirect Cost to Industry**. Indicate whether there are multiple sources to obtain the equipment, material or service required by this proposal. If not, provide a justification of the benefit versus small business impact.

## Part IV ❖ Amendment Costs and Benefits

	Construction <sup>1</sup>			Enforcement <sup>2</sup>			Operations & Maintenance <sup>3</sup>		
Building Type	Costs	% impact <sup>4</sup>	Benefits <sup>5</sup>	Costs	% impact	Benefits	Costs	% impact	Benefits
Residential									
Single family									
Multi-family	None	None	None	Lower	Minimal	None	None	None	None
Commercial/Retail	None	None	None	Lower	Minimal	None	None	None	None
Industrial									
Institutional									

<sup>&</sup>lt;sup>1</sup> \$ / square foot of floor area or other cost. Attach data. **Construction** costs are costs prior to occupancy, and include both design and direct construction costs that impact the total cost of the construction to the owner/consumer.

<sup>&</sup>lt;sup>2</sup> Cost per project plan. Attach data. **Enforcement** costs include governmental review of plans, field inspection, and mediated litigation required for enforcement.

<sup>&</sup>lt;sup>3</sup> Cost to building owner/tenants over the life of the project.

<sup>&</sup>lt;sup>4</sup> Cost differential over a specific size project or range of projects as determined by the proponent. Provide sufficient cost and benefit detail to clarify the impact to the Council. All data should be created and referenced to third party reputable sources for verification.

<sup>&</sup>lt;sup>5</sup> Note sectors with measurable benefit from Part II, including benefits to a) the user, b) the public, c) the industry, and/or d) the economy; use e) for all of the above.