



PUBLIC HEALTH

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WAC 246-366A Proposed Rule Environmental Health & Safety for K-12 Schools Initial Comments and Significant Analysis Update

Washington State Board of Health
August 27, 2008

Mark Soltman, Office of Environmental Health and Safety

Today's Information

- Preliminary Significant Analysis Summary
 - ✓ Public Health Concerns
 - ✓ Anticipated Benefits
 - ✓ Total Cost for New Construction
 - ✓ Total Cost for Operation and Maintenance
- Written Comments Received (as of 8/21/08)

Preliminary Significant Analysis: Proposed New Requirements

- Improved Water Quality
- Improved Indoor Air Quality
- Improved Safety
- Annual Inspections

Improved Water Quality

- New Water Quality Testing Requirements - Lead & Copper
- Public Health Concerns
 - ✓ Lead exposure can impair physical and mental development.
 - ✓ Young children's bodies tend to absorb more lead than adults.
 - ✓ 30% of Washington schools have at least one fixture with lead levels exceeding 20 parts per billion.
- Benefits of New Requirements
 - ✓ Identify plumbing fixtures with elevated levels of lead and copper in drinking water.
 - ✓ Reduced exposure to harmful lead and copper in drinking water of school children.

Improved Air Quality

- New Requirements Relating to Indoor Air Quality (IAQ)
 - ✓ Outside air exchange, air ducting, and dust control
 - ✓ Mold and moisture prevention and correction
- Public Health Concerns
 - ✓ Poor IAQ contributes to health problems, ranging from asthma, allergies, and respiratory infections, to coughing, sneezing, eye and skin irritation.
 - ✓ 120,000 Washington children have asthma—10% of middle-to-high school students.
 - ✓ Health care costs for students with asthma exceed \$252 million each year.
- Benefits of New Requirements
 - ✓ A 20 to 80% decrease in asthma and other respiratory illness symptoms.
 - ✓ A 10% reduction in symptoms could save over \$25 million in Washington.

Improved Safety

- New Playground, Laboratory and Shop Requirements
 - ✓ Playground equipment to meet national standards
 - ✓ Fall protection measures
 - ✓ Laboratories and Shops:
 - Emergency eyewashes and showers
 - Emergency utility shut-offs and safety switches on power equipment
- Public Health Concerns
 - ✓ Playground equipment-related injury—most common school-related injury for children under 14 years (Oregon State Department of Human Services, 2007)
 - ✓ Labs and shops contribute 7.1% of injuries. Of these, equipment contributed to 84% of injuries. (Utah Student Injury Report, 2000)
- Benefits of New Requirements
 - ✓ Fewer and less severe injuries
 - ✓ Estimated \$43 million savings, annually (based on national data reported by Oregon DHS, 2007)

Annual Inspections

- New Environmental Health & Safety Inspection Requirements
 - ✓ Annual inspection by local health officer or designee
 - ✓ Optional local programs may establish inspection by school staff, 2 out of 3 years
- Public Health Concerns
 - ✓ Nine of 35 Local Health Jurisdictions regular school inspections
 - ✓ 36% of Washington school students protected by regular LHJ inspection
 - ✓ 40% of schools were out of compliance (Los Angeles Unified School District 2005 study)
- Benefits of Annual Inspections
 - ✓ Assist school officials in identifying and responding to potential health and safety hazards.

New School Construction Costs for New Requirements

Typical School		Additional Cost		
Type	Size (square feet)	Total	Per square foot	% increase
Elementary	65,000	\$317,850	\$4.89	2.0
Middle/Junior High	95,000	\$519,650	\$5.47	2.5
Senior High	225,000	\$960,750	\$4.27	1.8

Current Average New School Construction Costs (2007):

- Elementary: \$16,033,725 or \$274.91 per square foot (58,324 sq.ft.)
- Middle/Junior High: \$21,278,427 or \$225.94 per square foot (94,177 sq. ft.)
- Senior High: \$26,299,133 or \$249.91 per square foot (105,235 sq. ft.)

Construction Bid Summaries from 1989 – 2007, OSPI.

Operation and Maintenance Costs for New Requirements

Typical School		Start-up Costs			Annual Ongoing Costs		
Type	# of Students	Per School	Per Student	% increase	Per School	Per Student	% increase
Elementary	489	\$23,634	\$48.33	6.5	\$9,042	\$18.49	2.5
Middle/ Junior High	688	\$21,917	\$31.86	4.3	\$7,239	\$10.52	1.4
Senior High	1442	\$23,590	\$16.36	2.2	\$8,481	\$5.88	0.8

Current Average Operation and Maintenance costs: \$750 per student

School District and Educational Service District Financial Reporting for Fiscal Year 06-07, OSPI.

Comments Received (as of 8/21/08)

- **Section -060 (3)** Suggestions for improving the requirements for controlling direct sunlight.
- **Section -060 (5)** Suggestions allowing the use of carpet tile with water-impervious backing, and clarification on sealing of carpet seams
- **Section -090** Suggestion requiring commissioning of heating and ventilation systems.
- **Section -115 (1)** Suggestion for reducing illumination levels in shower and locker rooms, consistent with Illuminating Engineering Society of North America's recommendations (IESNA).
- **Section -130** Concerns about the 25% representative sampling in middle, jr. high, and high schools

What's Next?

ACTIVITY	DATES
Public Comment Period on Proposed Rule	July 23 – September 10, 2008
State Board of Health Public Hearing on Proposed Rule (Spokane)	August 27, 2008
State Board of Health Public Hearing on Proposed Rule (Olympia)	September 10, 2008

Questions?

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