

PRELIMINARY SIGNIFICANT ANALYSIS

# WAC 246-205-541

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## Decontamination Standards

September 17, 2014

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- Section 6: Identify alternative versions of the rule that were considered, and explain how the department determined that the rule being adopted is the least burdensome alternative for those required to comply with it that will achieve the general goals and specific objectives stated previously.
- Section 7: Determine that the rule does not require those to whom it applies to take an action that violates requirements of another federal or state law.
- Section 8: Determine that the rule does not impose more stringent performance requirements on private entities than on public entities unless required to do so by federal or state law.
- Section 9: Determine if the rule differs from any federal regulation or statute applicable to the same activity or subject matter and, if so, determine that the difference is justified by an explicit state statute or by substantial evidence that the difference is necessary.
- Section 10: Demonstrate that the rule has been coordinated, to the maximum extent practicable, with other federal, state, and local laws applicable to the same activity or subject matter.

## **Section 1: Describe the proposed rule, including a brief history of the issue, and explain why the proposed rule is needed.**

In 2002, the Department of Health (department) adopted the current methamphetamine decontamination standard of  $0.1 \mu\text{g}^*/100 \text{ cm}^2$  in WAC 246-205-541 pursuant to RCW 64.44.070. At that time, relevant health effects studies investigating impacts from low level exposures to sensitive populations within a drug lab setting were insufficient to establish a health-based standard. Instead, the department adopted a standard that was based primarily on what could be consistently detected and measured by a licensed laboratory, also known as detection limit. The department is proposing to revise the methamphetamine decontamination standard in response to a petition for rule making from The Peninsula Housing Authority (Clallam and Jefferson Counties). The petition requests the department to revise the methamphetamine decontamination to a health-based standard and to specifically consider the reviews and rationale used to establish the more recent standard adopted by California.

Over the past decade, several other states<sup>i,ii,iii,iv</sup> have developed guidelines and decontamination standards for former methamphetamine labs, most notably the states of Colorado and California. Both states have undertaken extensive reviews of the available human and animal toxicity studies that have undergone peer view. From these reviews, Colorado and California have developed state specific reference doses for methamphetamine.<sup>iii,iv</sup> These values are similar in their utility to federal reference doses (RfD) established by the U. S. Environmental Protection Agency (EPA) for many environmental contaminants. Reference doses are developed to establish a safe level of exposure to non-carcinogens for the most sensitive populations.

In addition to the development of reference doses, both states conducted thorough exposure assessments to more accurately characterize and estimate potential methamphetamine exposures to infants, young children, and women of childbearing age who might be exposed to residual methamphetamine over a range of proposed decontamination standards.<sup>iii,v</sup> In its development of a risk-based remediation standard, the California Environmental Protection Agency (CAL EPA) took a health-protective approach that any effect caused by methamphetamine is an adverse effect and, potentially, a critical effect. Therefore, setting a decontamination standard protecting against the most sensitive endpoint would prevent the occurrence of any other adverse effect as well.

The department evaluated whether a change in the current methamphetamine decontamination standard from  $0.1 \mu\text{g}/100 \text{ cm}^2$  to  $1.5 \mu\text{g}/100 \text{ cm}^2$  would present potential health concerns to the public who may re-inhabit residences that were previously used as methamphetamine drug labs. This evaluation follows an update from the CAL EPA on their recommendations for a health-based decontamination standard. California's standard was initially set at  $0.5 \mu\text{g}/100 \text{ cm}^2$  in 2007 and revised to  $1.5 \mu\text{g}/100 \text{ cm}^2$  in 2009 based on the initial CAL EPA recommendation. Based on the evaluation of both Colorado and California

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\*  $\mu\text{g}$  = microgram, equivalent to one millionth of a gram ( $1 \times 10^{-6}$ )

efforts, the department has concluded that CAL EPA's methamphetamine reference dose and exposure estimates are appropriate for establishing decontamination standards.<sup>vi</sup> The proposed rule amends WAC 246-205-541, Decontamination standards, to change the methamphetamine decontamination standard from 0.1 µg/100 cm<sup>2</sup> to 1.5 µg/100 cm<sup>2</sup>.

#### Application of decontamination standards

To determine a property is contaminated, a local health officer must conduct an inspection within fourteen days of notification from law enforcement of potential property contamination. The inspection includes collecting data such as evidence of hazardous chemical use or storage on site, chemical stains, release or spillage of hazardous chemicals on the property, or glassware or other paraphernalia associated with the manufacture of illegal drugs on site. The local health officer may also request copies of any law enforcement reports, forensic chemist reports, and any department of ecology hazardous material transportation manifests needed to evaluate the length of time the property was used as an illegal drug manufacturing or storage site, the size of the site actually used for the manufacture or storage of illegal drugs, what chemical process was involved in the manufacture of illegal drugs, what chemicals were removed from the scene, and the location of the illegal drug manufacturing or storage site in relation to the habitable areas of the property. Local health officers may use the decontamination standards adopted in WAC 246-205-541 as an indicator to assist in determining whether a property is an illegal drug manufacturing site.

Once a site has been remediated, the decontamination standards for methamphetamine, mercury, lead, and volatile organic compounds are used to determine a property has been remediated sufficiently to protect public health.

## **Section 2: Is a significant analysis required for this rule?**

A significant legislative rule is defined under 34.05.328(5)(c)(iii) as a rule, other than a procedural or interpretive rule, that:

- Adopts substantive provisions of law pursuant to delegated legislative authority, the violation of which subjects a violator of such rule to a penalty or sanction;
- Establishes, alters, or revokes any qualification or standard for the issuance, suspension, or revocation of a license or permit; or
- Adopts a new, or makes significant amendments to, a policy or regulatory program.

The department evaluated the rule and determined it is a significant legislative rule under the definition provided in statute and requires a significant analysis that includes a cost/benefit analysis.

### **Section 3: Clearly state in detail the general goals and specific objectives of the statute that the rule implements.**

*RCW 34.05.328(1)(a) requires that the department “clearly state in detail the general goals and specific objectives of the statute that the rule implements.”*

The general goal of the statute as described in RCW 64.44.005, Legislative findings, is to protect innocent members of the public from the harmful effects of hazardous chemicals when properties used in the manufacture of illegal drugs are subsequently rented or sold without having been effectively decontaminated.

The specific objective of the statute, as it pertains to this rule making, is to “establish decontamination standards for hazardous chemicals, including but not limited to methamphetamine, lead, mercury, and total volatile organic compounds.”

The proposed rule follows the general goal and specific objective of the authorizing statute by establishing a health-based methamphetamine decontamination standard for properties used to manufacture illegal drugs.

### **Section 4: Explain how the department determined that the rule is needed to achieve these general goals and specific objectives. Analyze alternatives to rule making and the consequences of not adopting the rule.**

*RCW 34.05.328(1)(b) requires the department to determine the rule is needed to achieve the general goals and specific objectives of the statute and analyze alternatives to rulemaking and the consequences of not adopting the rule.*

RCW 64.44.070 states, “The department shall adopt rules for decontamination of a property used as a laboratory for production of controlled substances ... The rules shall establish decontamination standards for hazardous chemicals, including but not limited to methamphetamine, lead, mercury, and total volatile organic compounds.”

The proposed rule will achieve the authorizing statute’s general goal and specific objective by establishing a health-based decontamination standard for methamphetamine. There is no alternative to rulemaking because development and adoption of this standard in rule is mandated by statute.

**Section 5: Explain how the department determined that the probable benefits of the rule are greater than the probable costs, taking into account both the qualitative and quantitative benefits and costs and the specific directives of the statute being implemented.**

*RCW 34.05.328(1) requires that the agency perform a cost / benefit analysis for significant legislative rules to determine the probable benefits of the rule are greater than its probable costs, taking into account both the qualitative and quantitative benefits and costs and the specific directives of the statute being implemented.*

Description

The proposed amendment to WAC 246-205-541 revises the methamphetamine decontamination standard for property used as an illegal drug laboratory from 0.1 µg/100 cm<sup>2</sup> to a health-based standard of 1.5 µg/100 cm<sup>2</sup>.

Benefits

The primary benefit of the proposed rule is the reduced cost of compliance gained by establishing a less stringent methamphetamine decontamination standard. In turn, this could potentially result in more homes being made available for purchase and rent. By using the health-based standard of 1.5 µg/100 cm<sup>2</sup> rather than relying on an unnecessarily restrictive detection limit, those who reside in decontaminated properties are protected from the harmful effects of hazardous chemicals without adding unnecessary decontamination costs for property owners.

The department evaluated whether a change in the current methamphetamine decontamination standard from 0.1 µg/100 cm<sup>2</sup> to 1.5 µg/100 cm<sup>2</sup> would present potential health concerns to the public who may re-inhabit residences that were previously used as methamphetamine drug labs.<sup>vi</sup> This evaluation follows an update from the CAL EPA on their recommendations for a health-based decontamination standard. California's standard was initially set at 0.5 µg/100 cm<sup>2</sup> in 2007 and revised to 1.5 µg/100 cm<sup>2</sup> in 2009 based on the initial CAL EPA recommendation.

In its development of a risk-based decontamination standard, CAL EPA took a health-protective approach that any effect caused by methamphetamine is adverse effect and, potentially, a critical effect. Therefore, setting a decontamination standard protecting against the most sensitive endpoint, the standard would prevent the occurrence of any other adverse effect as well. The critical effect of methamphetamine among all sensitive populations including children was identified as appetite suppression in women during pregnancy and consequent reduction in body weight gain. Based on this lowest observable effect along with standard uncertainty factors, CAL EPA calculated an RfD of 0.3 µg/kg-day.

Decontamination standards are aimed at protecting residents that may occupy homes used as former methamphetamine drug labs. The goal of a decontamination standard is therefore to limit potential exposure of methamphetamine via all relevant pathways to

sensitive individuals so that exposure does not exceed the RfD of 0.3 µg/kg-day. The target decontamination standard must be set at a level that ensures the daily exposure to surface methamphetamine residues produces an absorbed dose that does not exceed the RfD. CAL EPA estimated the absorbed dose via three pathways (dermal absorption of methamphetamine residue on the body, dermal absorption of methamphetamine residue on the hands, and ingestion of methamphetamine following hand-to-mouth activity) at different residue concentrations. Table 1 below illustrates the CAL EPA determination that a residue concentration of 1.5 µg/100 cm<sup>2</sup> would result in an absorbed dose just below the RfD of 0.3 µg/kg-day for methamphetamine.

**Table 1: Estimated Doses Based on the Mean and 95<sup>th</sup> Percentile**

<b>Concentration</b>	<b>Estimated Dose (infant)</b>	<b>Reference Value</b>	<b>Percent of RfD</b>
1.5 µg/100 cm <sup>2</sup>	0.18 µg/kg-day*	0.3 µg/kg-day	60%
1.5 µg/100 cm <sup>2</sup>	0.28 µg/kg-day**	0.3 µg/kg-day	93%

\*mean dose estimate

\*\* 95% percentile dose estimate

While the CAL EPA recommendation assumed other exposures would not likely occur in a post-remediation scenario, it leaves open the potential for exposures to methamphetamine from other pathways, including through inhalation. However, as there are no available studies more exhaustive than the CAP EPA reviews to contradict the findings, the department has determined a standard of 1.5 µg/100 cm<sup>2</sup> is adequate to protect public health.

#### Avoided costs

The department assumes the proposed rule will reduce costs to property owners. By setting the methamphetamine decontamination standard as a health-based standard rather than the stricter standard based on a detection limit, the department assumes fewer properties will be identified as contaminated and needing remediation. For properties identified as contaminated, the department assumes cleanup will be less intensive to meet the standard. This will result in lower decontamination costs.

#### Costs

Based on the preceding benefit analysis, the department assumes there are no additional costs associated with the proposed rule.

#### Benefit and cost determination

Based on this analysis, the department has determined the probable benefits of revising the methamphetamine decontamination standard adopted in the rule are greater than the probable costs.

**Section 6: Identify alternative versions of the rule that were considered, and explain how the department determined that the rule being adopted is the least burdensome alternative for those required to comply with it that will achieve the general goals and specific objectives stated previously.**

*RCW 34.05.328(1)(e) requires that agencies determine, after considering alternative versions of the rule and this analysis, that the rule is the least burdensome alternative for those required to comply that will achieve the general goals and specific objectives of the statute.*

In developing the proposed methamphetamine decontamination standard of 1.5 µg/100 cm<sup>2</sup>, the department considered two alternatives:

Alternative 1

Requiring encapsulation after decontamination to 1.5 µg/100 cm<sup>2</sup> to increase the buffer of safety provided by the proposed standard without increasing other public health concerns or cost. The department rejected this standard as it introduced uncertainty on how to accomplish encapsulation, potentially increased the presence of other harmful chemicals including volatile organic compounds, and increased cost.

Alternative 2

Adopting a decontamination standard of 1.0 µg/100 cm<sup>2</sup>, again, to increase the buffer of safety provided by the proposed standard without increasing public health risk or cost of compliance. The department rejected this standard as there are no available studies more exhaustive than the CAL EPA reviews to contradict the findings or indicate a standard of 1.5 µg/100 cm<sup>2</sup> is not adequately protective of public health even when taking into account exposure via inhalation.

The proposed rule is the least burdensome alternative considered by the department for those required to comply with it that will achieve the general goals and specific objectives of the statute that the rule implements.

**Section 7: Determine that the rule does not require those to whom it applies to take an action that violates requirements of another federal or state law.**

*RCW 34.05.328(1)(f) calls for a determination that the rule does not require those to whom it applies to take an action that violates requirements of another federal or state law.*

The proposed rule does not require those to whom it applies to take an action that violates requirements of federal or state law.

**Section 8: Determine that the rule does not impose more stringent performance requirements on private entities than on public entities unless required to do so by federal or state law.**

*RCW 34.05.328(1)(g) requires a determination that the rule does not impose more stringent performance requirements on private entities than on public entities unless required by law.*

The proposed rule does not impose more stringent performance requirements on private entities than on public entities.

**Section 9: Determine if the rule differs from any federal regulation or statute applicable to the same activity or subject matter and, if so, determine that the difference is justified by an explicit state statute or by substantial evidence that the difference is necessary.**

*RCW 34.05.328(1)(h) calls for a determination of whether or not the rule differs from any federal regulation or statute applicable to the same activity or subject matter.*

The proposed rule does not differ from any applicable federal regulation or statute.

**Section 10: Demonstrate that the rule has been coordinated, to the maximum extent practicable, with other federal, state, and local laws applicable to the same activity or subject matter.**

*RCW 34.05.328(1)(i) requires coordination of the rule, to the maximum extent possible, with other federal, state, and local laws applicable to the same activity or subject matter.*

Two local health jurisdictions have adopted the current standard in local ordinance and are aware of this proposed change.

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<sup>i</sup> *Guidelines for the Cleanup of Connecticut Methamphetamine Labs*. July 2006. Rusnak S, Ginsberg G, and Toal B. Connecticut Department of Public Health, Environmental and Occupational Health Assessment Program. [http://www.ct.gov/dph/lib/dph/environmental\\_health/eoha/pdf/METH\\_LAB\\_CLEANUP\\_PROTOCOL.pdf](http://www.ct.gov/dph/lib/dph/environmental_health/eoha/pdf/METH_LAB_CLEANUP_PROTOCOL.pdf)

<sup>ii</sup> *Clandestine Drug Lab General Cleanup Guidance*. September 2010. Minnesota Department of Health, Division of Environmental Health, Minnesota Pollution Control Agency. <http://www.health.state.mn.us/divs/eh/meth/lab/guidance0910.pdf>

<sup>iii</sup> *Support for Selection of a Cleanup Level for Methamphetamine at Clandestine Drug Laboratories*. June 2007. Hammon T, and Griffin S. *Regulatory Toxicology and Pharmacology* 48(1): 102-14. <http://www.colorado.gov/cs/Satellite?blobcol=urldata&blobheadname1=Content-Disposition&blobheadname2=Content->

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<sup>iv</sup> *Development of a Reference Dose (RfD) for Methamphetamine*. February 2009. California Environmental Protection Agency, Office of Environmental Health Hazard Assessment, Integrated Risk Assessment Branch. [http://www.oehha.ca.gov/public\\_info/public/kids/meth022609.html](http://www.oehha.ca.gov/public_info/public/kids/meth022609.html)

<sup>v</sup> *Assessment of Children's Exposure to Surface Methamphetamine Residues in Former Clandestine Methamphetamine Labs, and Identification of a Risk-Based Cleanup Standard for Surface Methamphetamine Contamination*. February 2009. California Environmental Protection Agency, Office of Environmental Health Hazard Assessment, Integrated Risk Assessment Branch. [http://oehha.ca.gov/public\\_info/public/kids/pdf/ExposureAnalysis022709.pdf](http://oehha.ca.gov/public_info/public/kids/pdf/ExposureAnalysis022709.pdf)

<sup>vi</sup> *Office of Environmental Health, Safety, and Toxicology Review and Comment on California Environmental Protection Agency Methamphetamine Decontamination Standard Recommendations*. May 2014. Department of Health. <http://www.doh.wa.gov/Portals/1/Documents/4300/CDL-RuleRevisionCaliEPARReview.pdf>