



Department of Natural Resources Hazardous Waste Program Draft Rulemaking Schedule

Item	Completion date
Prepare and submit Request to Begin/Rulemaking Information Report	April 24, 2009
Department approval of Request to Begin	May 8, 2009
Draft rule completed* (<i>Note: may require additional time, based on revisions to current draft by workgroup</i>)	June 1, 2009
Regulatory Impact Report (RIR) completed	July 1, 2009
Submit RIR for publication and draft rules for interagency review	July 3, 2009
Approval of department management for publication of RIR and distribution of draft rules	July 24, 2009
Newspaper and web publication of RIR	July 27, 2009
End of 60 day concurrent comment period for RIR and draft rules	September 28, 2009
Respond to comments on RIR and post comments and responses on department website	October 5, 2009
Present rulemaking package to Hazardous Waste Management Commission for approval	October 15, 2009
Proposed Rulemaking to Division Administration	October 15, 2009
Proposed Rulemaking from Division Director to Department Director	October 23, 2009
Deadline for filing Proposed Rules with Secretary of State	November 2, 2009
Proposed rulemaking published in <i>Missouri Register</i>	December 1, 2009
Public hearing (must be at least thirty days after publication)	February 1, 2010
End of public comment period (No sooner than 7 days after hearing)	February 8, 2010
Final HWMC action (approx. two months after public hearing)	April 1, 2010
Order of Rulemaking to JCAR (no later than 60 days after public comment period)	April 7, 2010
Deadline for filing Orders of Rulemaking with Administrative Rules (no sooner than 30 days after order is filed with JCAR) (no more than 90 days after public comment period ends)	May 7, 2010
Order of Rulemaking published in <i>Missouri Register</i>	June 15, 2010
Rulemaking published in <i>Code of State Regulations</i>	June 30, 2010
Rulemaking effective	July 30, 2010



Health Profile Workgroup
April 8, 2009

40 CFR 270.10(j) *Exposure information.* (1) After August 8, 1985, any part B permit application submitted by an owner or operator of a facility that stores, treats, or disposes of hazardous waste in a surface impoundment or a landfill must be accompanied by information, reasonably ascertainable by the owner or operator, on the potential for the public to be exposed to hazardous wastes or hazardous constituents through releases related to the unit. At a minimum, such information must address:

(i) Reasonably foreseeable potential releases from both normal operations and accidents at the unit, including releases associated with transportation to or from the unit;

(ii) The potential pathways of human exposure to hazardous wastes or constituents resulting from the releases described under paragraph (j)(1)(i) of this section; and

(iii) The potential magnitude and nature of the human exposure resulting from such releases.

(2) By August 8, 1985, owners and operators of a landfill or a surface impoundment who have already submitted a part B application must submit the exposure information required in paragraph (j)(1) of this section.

Health Profile Workgroup

April 8, 2009

40 CFR 270.10(I) If the Director concludes, based on one or more of the factors listed in paragraph (I)(1) of this section that compliance with the standards of 40 CFR part 63, subpart EEE alone may not be protective of human health or the environment, the Director shall require the additional information or assessment(s) necessary to determine whether additional controls are necessary to ensure protection of human health and the environment. This includes information necessary to evaluate the potential risk to human health and/or the environment resulting from both direct and indirect exposure pathways. The Director may also require a permittee or applicant to provide information necessary to determine whether such an assessment(s) should be required.

(1) The Director shall base the evaluation of whether compliance with the standards of 40 CFR part 63, subpart EEE alone is protective of human health or the environment on factors relevant to the potential risk from a hazardous waste combustion unit, including, as appropriate, any of the following factors:

- (i) Particular site-specific considerations such as proximity to receptors (such as schools, hospitals, nursing homes, day care centers, parks, community activity centers, or other potentially sensitive receptors), unique dispersion patterns, etc.;
- (ii) Identities and quantities of emissions of persistent, bioaccumulative or toxic pollutants considering enforceable controls in place to limit those pollutants;
- (iii) Identities and quantities of nondioxin products of incomplete combustion most likely to be emitted and to pose significant risk based on known toxicities (confirmation of which should be made through emissions testing);
- (iv) Identities and quantities of other off-site sources of pollutants in proximity of the facility that significantly influence interpretation of a facility-specific risk assessment;
- (v) Presence of significant ecological considerations, such as the proximity of a particularly sensitive ecological area;
- (vi) Volume and types of wastes, for example wastes containing highly toxic constituents;
- (vii) Other on-site sources of hazardous air pollutants that significantly influence interpretation of the risk posed by the operation of the source in question;
- (viii) Adequacy of any previously conducted risk assessment, given any subsequent changes in conditions likely to affect risk; and
- (ix) Such other factors as may be appropriate.



Health Profile Law & Regulations
ORIGINAL REGULATION

Missouri Revised Statutes (RSMo)
Section 260.395, RSMo

260.395.7(5), RSMo:

Submit with the application for a hazardous waste disposal or treatment facility a profile of the environmental and economic characteristics of the area as required by the commission, including the extent of air pollution and groundwater contamination; and a profile of the health characteristics of the area which identifies all serious illness, the rate of which exceeds the state average for such illness, which might be attributable to environmental contamination;

Code of State Regulations
Title 10 CSR 25-7

10 CSR 25-7.264(2)(P) – Health Profiles.

- “1. An owner/operator shall submit a health profile, as required by section 260.395.7(5), RSMo, with the application for a hazardous waste treatment or operating disposal facility. (A health profile is not necessary for a post-closure permit.) A health profile shall include efforts to identify any serious illnesses, the rate of which exceeds the state average for the illnesses, which might be attributable to environmental contamination. A serious illness is one which may cause or significantly contribute to an increase in morbidity and mortality or an increase in reversible or irreversible incapacitating effects on the health of humans. An owner/operator shall consult the Missouri Department of Health regarding appropriate factors to be included in the profile prior to initiating the health profile.
- A. The health profile shall address five (5) main sources of data as listed and shall take into consideration—
- (I) The population density around the site, as indicated by the most current census data;
 - (II) Mortality, as indicated by death certificate information;
 - (III) Incidence, as indicated by the State Cancer Registry;
 - (IV) Natality, as indicated by fetal death and birth certificate information; and
 - (V) Morbidity, as indicated by hospital discharge information.

- B. Conditions reflecting routes of exposure shall be included in the report for all hazardous wastes to be treated or disposed of at the facility.
 - C. The discussion of measurements of health characteristics shall focus on comparisons between state, county and site-specific rates.
 - D. Site-specific rates shall include a geographic area of an approximate three to five (3—5)-mile radius around the site using zip code boundaries. Geographic areas of larger or smaller size may be used, where approved by the Missouri Department of Health, and shall reflect the risks on a representative population. Only Missouri data is required for any site where the three to five (3—5)-mile radius extends into another state.
 - (I) For incinerators, special consideration shall be given to wind roses for each season with distinct meteorological conditions. In addition, calculated effluent plume paths, including areas of maximum impact and width and length of plume at ground level, should be presented.
 - (II) After analysis of the data required in this section, modification of the site-specific geographic area from which disease rates will be computed may be necessary with respect to the previously mentioned three to five (3—5)-mile radius around the site.
 - E. A minimum of five (5) years' data shall be required for a statistical analysis and averaging of rate computations. Qualitative technical difficulties in data resulting in time periods of less than five (5) years shall be fully explained and justified in the text of the report.
2. This paragraph sets forth requirements which shall be met subsequent to the initial application.
- A. A health profile shall be part of each request for permit renewal.
 - B. Additional epidemiological investigations may be required when the rate of any illness in the area described in subparagraph (2)(P)1.D. of this rule exceeds the state average for that illness.



Health Profile Law & Regulations

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10 CSR 25-7.264(2)(P) – Health Profiles.

“1. An owner/operator shall submit a health profile, as required by section 260.395.7(5), RSMo, with the initial application for a hazardous waste treatment or land disposal facility. A health profile is not necessary for facilities that must obtain post-closure care and/or corrective action permits, only. A health profile shall identify any potential serious illnesses, the rate of which exceeds the state average for the illnesses, which might be attributable to environmental contamination from any hazardous waste treatment or land disposal unit at the hazardous waste facility applying for the permit. The purpose of the information is to document the potential for exposure from the applicable hazardous waste units and to determine whether additional permit controls are necessary to ensure protection of human health. One of the following, as appropriate, may constitute a health profile for the purposes of this subsection:

A. For combustion units:

1. The information required by 40 CFR 270.10(l) for hazardous waste combustion units;
2. An evaluation of the potential risk to human health and the environment resulting from both direct and indirect exposure pathways; or
3. A Health Evaluation by the Missouri Department of Health and Senior Services requested by the facility through the department.

B. For other treatment units:

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2. A Health Evaluation by the Missouri Department of Health and Senior Services requested by the facility through the department.

C. For land disposal units:

1. The information required by 40 CFR 270.10(j);

2. An evaluation of the potential risk to human health and the environment resulting from both direct and indirect exposure pathways; or

3. A Health Evaluation by the Missouri Department of Health and Senior Services requested by the facility through the department.

2. This paragraph sets forth requirements which shall be met subsequent to the initial application for a hazardous waste treatment, storage or disposal permit.

A. If changes to the facility occur after permit issuance that may increase the potential for human exposure, an updated health profile shall be part of a facility application for permit renewal, or modification of a permit

B. Appropriate documentation to be submitted as the updated health profile shall include one of the options set out in subparagraphs (2)(P)1.A through C, or an update of a previous submittal under those requirements.

3. Additional epidemiological investigations by the Missouri Department of Health and Senior Services may be required if the information provided pursuant to subparagraph (2)(P)2.B indicates the presence of potentially unacceptable human health risks.

Notes:

Intent of changes: Since the effective date of the original health profile rules 40 CFR 270.10 (j) and (l) have been promulgated and now address essentially the same overall needs as the health profile. The federal regulations require the applicant to submit documentation regarding the potential for environmental contamination and public exposure to contaminants; thus the federally required evaluation of human health impacts can also address the intent of the Missouri statute in lieu of the original Health Profile requirements.

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Health Profile Law & Regulations
PROPOSED REGULATION

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2. An evaluation of the potential risk to human health and the environment resulting from both direct and indirect exposure pathways; or
3. A Health Evaluation by the Missouri Department of Health and Senior Services requested by the facility through the department.

B. For other treatment units:

1. An evaluation of the potential risk to human health and the environment resulting from both direct and indirect exposure pathways; or
2. A Health Evaluation by the Missouri Department of Health and Senior Services requested by the facility through the department.

C. For land disposal units:

1. The information required by 40 CFR 270.10(j);
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3. A Health Evaluation by the Missouri Department of Health and Senior Services requested by the facility through the department.

2. This paragraph sets forth requirements which shall be met subsequent to the initial application for a hazardous waste treatment, storage or disposal permit.
 - A. If changes to the facility occur after permit issuance that may increase the potential for human exposure, an updated health profile shall be part of a facility application for permit renewal, or modification of a permit
 - B. Appropriate documentation to be submitted as the updated health profile shall include one of the options set out in subparagraphs (2)(P)1.A through C, or an update of a previous submittal under those requirements.
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Health Profile Workgroup April 8, 2009

Facilities Requiring Health Profiles

4 incinerators:

BASF Corp., Palmyra, MO
Bayer Cropscience, Kansas City, MO
Lake City Army Ammunition Plant (LCAAP), Independence, MO and
EBV Explosives Environmental Co., Carthage, MO

3 cement kilns:

Lone Star Industries Inc., Cape Girardeau, MO
Continental Cement Co., LLC/Green America Recycling, LLC, Hannibal, MO and
Holcim (US) Inc./Geocycle, LLC (Kiln closed this year), Clarksville, MO

2 operating hazardous waste landfills (monofills for treated secondary slag):

Exide Technologies, Forest City, MO
Doe Run, Boss, MO

3 miscellaneous treatment facilities (drum crusher, pug mill, blending of fuel, etc.):

Solvent Recovery Corp., Kansas City, MO
Heritage Environmental Services, LLC, Kansas City, MO and
Amerex (formerly Waste Express), Kansas City, MO

Health Evaluation

A Health Evaluation by the Missouri Department of Health and Senior Services requested by the facility through the Department of Natural Resources. The Health Evaluation will assess the potential for exposure and adverse health effects to the public from materials released by the applicable hazardous waste units. The facility will coordinate with the Department of Health and Senior Services to provide them (including but not limited to) monitoring data and emission records necessary to complete the Health Evaluation.