

**RECAP 2003**

In 1998, the Louisiana Department of Environmental Quality (LDEQ) promulgated the Risk Evaluation/Corrective Action Program (RECAP) to ensure risks to human health and the environment were properly evaluated using clear and consistent guidelines across media-based lines. RECAP is intended to be a dynamic program with revisions through rulemaking in response to changes in the science of risk evaluation and toxicological data. Changes were made in the second edition of RECAP published on June 20, 2000. The latest version of RECAP, RECAP 2003, incorporates changes and interpretations gained through the experience of the LDEQ as RECAP reports have been developed.

**Overview of RECAP**

RECAP uses a tiered approach consisting of a Screening Option and three Management Options to identify conditions hazardous to human health

and/or the environment. Each tier allows site evaluation and corrective action. The tiers in RECAP are Screening Option, Management Option 1, Management Option 2 and Management Option 3.

As the Management Option level increases, the amount of site-specific information, the level of effort, and costs required also increase. However, as the level of effort increases, site-specific standards are developed that more accurately demonstrate the level of impacts to human health and the environment by replacing conservative assumptions with site-specific data. At each Management Option level, if site conditions exceed the calculated Screening Standard, the submitter has the option of moving on to the next management option or remediating the area to the calculated standards and complying with any closure and/or post-closure requirements.

Figure 1. Progression of RECAP Tiers

SCREENING OPTION	MANAGEMENT OPTION 1	MANAGEMENT OPTION 2	MANAGEMENT OPTION 3
Conservative Department			Standards based on Site
Derived Standards			Specific Data Collected
Least Expensive			Most Expensive

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RECAP 2003 institutes changes resulting from LDEQ interpretations as well as rule-making due to changes in risk evaluation science and toxicity. Table 1 highlights some changes in the RECAP 2003 document.

Table 1. Overview of Changes in RECAP 2003

CLARIFICATIONS OR ADDITIONAL GUIDANCE	
RECAP 2.15	Identification of Toxicity Values
RECAP 2.16	Use of Monitored Natural Attenuation
RECAP 2.6.1	Identification of the Area of Investigation (AOI)
RECAP 2.19	Demonstrating Compliance with the RECAP Standard
NA	Development of RECAP Standards for air, surface water, water, sediment and biota
RECAP 5.2	Development and Application of RECAP Standards
RECAP 2.8.2.1	Use of dry weight versus wet weight
RECAP 2.11	Identification of groundwater point of compliance (POC) and point of exposure (POE)
RECAP Appendix G	Addressing additivity for TPH
NA	Indoor air sampling
RECAP 2.14.2	Use of Applicable or Relevant and Appropriate Requirements (ARARs) under RECAP

Table 1. Overview of Changes in RECAP 2003 (Continued)

<b>BACKGROUND LEVELS</b>	
RECAP 2.13	<ul style="list-style-type: none"> <li>• Additional guidance on sample number requirements and statistical approach</li> <li>• Arsenic background level in soil of 7 milligrams per kilogram (mg/kg)</li> </ul>
<b>SOIL INTERVALS</b>	
RECAP 2.6.1.3	Surface soil (0-3') and potential surface soil (3'-15') from previous RECAP document now combined into one classification
<b>TABLE CHANGES</b>	
RECAP Tables 1, 2, 3	Revised RECAP Standards
RECAP Table 4	Table 4 (new) with default standards for Groundwater Standard for Volatile emissions to an enclosed structure (GW <sub>es</sub> ), Soil Standard for volatile emissions to an enclosed structure (Soil <sub>es</sub> ), Groundwater Standard for volatile emissions to ambient air (GW <sub>air</sub> ), and Air
RECAP Appendix G	Addition of a Target Organ Table
RECAP Table 1	EPA recommended Groundwater Standard for Methyl-tert-butyl-ether (MTBE) based upon aesthetics
<b>GUIDELINES FOR ADDRESSING ADDITIVE HEALTH EFFECTS UNDER THE RECAP</b>	
RECAP Appendix D	<ul style="list-style-type: none"> <li>• TPH-GRO range redefined to 8015B</li> <li>• Added TNRCC Methods 1005 and 1006</li> <li>• Revised indicators for kerosene and jet fuel</li> <li>• Added list of target organs for TPH releases</li> <li>• Updated inputs for lead models</li> <li>• Guidance on polychlorinated dibenzodioxins (PCDD) and polychlorinated dibenzofurans (PCDF)</li> </ul>
<b>METHODS FOR THE DEVELOPMENT AND APPLICATION OF SOIL AND GROUNDWATER STANDARDS</b>	
RECAP Appendix H	<ul style="list-style-type: none"> <li>• New Appendix H incorporates Appendices H, I and J from previous version</li> <li>• Includes Management Option 3</li> <li>• New RECAP Standard for Indoor Air</li> <li>• Revised Dermal Exposure Assumptions</li> </ul>
<b>MISCELLANEOUS CHANGES</b>	
RECAP 2.17	Conveyance notification requirements
RECAP 2.9	Changes to Land Use Codes
RECAP 2.11	Assumption of GW1 without TDS and aquifer yield data
RECAP 2.14.4	Acute toxicity – soil/child

This article serves as only a brief overview of changes made to the RECAP document in RECAP 2003. Details of the RECAP document may be viewed at the LDEQ website at <http://www.ldeq.org/technology/recap/2003/>.

*For further questions concerning these changes and other RECAP issues, please contact Melanie Hanks or Mike Purdom using the following contact information.*



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