



DEPARTMENT OF ENVIRONMENTAL QUALITY
POLICY AND PROCEDURE

Subject: Non-Aqueous Phase Liquid Management
for Petroleum Releases

Number: 09-023

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Page 1 of 2

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Category: Internal/Administrative External/Non-Interpretive External/Interpretive
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A Department of Environmental Quality (DEQ) Policy and Procedure cannot establish regulatory requirements for parties outside of the DEQ. This document provides direction to DEQ staff regarding the implementation of rules and laws administered by the DEQ. It is merely explanatory; does not affect the rights of, or procedures and practices available to, the public; and does not have the force and effect of law.

PURPOSE:

Petroleum products, also referred to as non-aqueous phase liquids (NAPL), are widely used in many industries and applications. Given their widely-used nature, petroleum releases have occurred from a multitude of sources. Examples of sources of petroleum releases include, but are not limited to, releases from oil and gas exploration and production, bulk storage, refining operations, retail sales (underground storage tanks), pipelines, home heating tanks, and industrial/manufacturing operations. Thousands of sites across the state of Michigan have documented releases of NAPL to the environment that must be addressed under statutory requirements.

In an effort to provide direction on this issue to staff, the DEQ has developed a publication entitled "[Non-Aqueous Phase Liquid \(NAPL\) Characterization, Remediation, and Management for Petroleum Releases](#)," June 2014, where State funds are expended to characterize, remediate, and/or manage NAPL for petroleum releases.

The Natural Resources and Environmental Protection Act, 1994 PA 451, as amended (NREPA), describes response actions related to releases of petroleum products to the environment and delegates regulatory authority to different programs depending on the source of the release. Regardless of the release's source, the science of characterizing, remediating, and/or managing NAPL is applicable to all programs with delegated authority to regulate petroleum releases to the environment.

AUTHORITY:

The following Parts of the NREPA:

- Part 111, Hazardous Waste Management
- Part 201, Environmental Remediation
- Part 213, Leaking Underground Storage Tanks
- Part 615, Supervisor of Wells
- Part 616, Orphan Well Fund

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Page 2 of 2

DEFINITION:

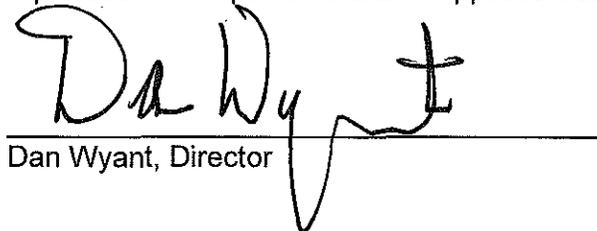
Non-Aqueous Phase Liquid – A liquid that is composed of one or more organic compounds that are immiscible or sparingly soluble in water.

POLICY:

The objective of Michigan environmental regulations is to prevent and mitigate unacceptable risks to human health and the environment. Appropriate characterization, remediation, and/or management of NAPL releases is important for achieving this objective. The risks and fate-and-transport of NAPL are more dependent on the hydrogeology and other situational conditions than by the container from which it was released. ASTM International, the Interstate Technology and Regulatory Council (ITRC), and others have developed nationally recognized and accepted methods for investigating, recovering, and managing NAPL based on extensive research.

The DEQ has reviewed and adopted these practices for application to all programs regulating petroleum releases under the NREPA, and DEQ staff and State-funded subcontractors are directed to use this approach as outlined in the publication entitled "*Non-Aqueous Phase Liquid (NAPL) Characterization, Remediation, and Management for Petroleum Releases.*" This publication is a compilation of information from ASTM International, the ITRC, and other resources and professional experience that is applicable to NAPL management.

Approved:



Dan Wyant, Director