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GOVERNOR

STATE OF MICHIGAN
DEPARTMENT OF
ENVIRONMENT, GREAT LAKES, AND ENERGY

LANSING



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DIRECTOR

TO: Liesl Eichler Clark, Director

THROUGH: Michael McClellan, Director, Environmental Support Division 

FROM: Jay Eickholt, Emergency Management Coordinator
Environmental Support Division 

DATE: June 7, 2022

SUBJECT: Viability of In-Situ Burning of Crude or Refined Oils as an Emergency Response Tool

For the past several years, the National Response Team (NRT) and EPA Region 5, Regional Response Team (RRT) have been discussing and conducting research regarding a potential large-scale release of refined or crude oil into freshwater. One area of discussion by government and private companies has focused on the feasibility, efficiencies, and authorities needed to conduct in-situ burning (ISB) in the Great Lakes and other freshwater settings. The EPA Region 5 RRT met in Mackinaw City in August 2017 where ISB was discussed as a potential viable response strategy in the Great Lakes.

One key issue was that the use of ISB as a response technique is not allowed in the state of Michigan under the federal Clean Air Act and Natural Resources and Environmental Protection Act, 1994 PA 451, as amended. Additionally, there was some preliminary discussion in 2017 regarding the potential issuance of a Governor's Declaration of Emergency or Disaster to authorize the use of ISB by suspending state and federal statutes if specific analytical data and modeling was provided to allow key decision-makers to review potential impacts and benefits from the ISB. No formal review or legal analysis was completed at that time to assess the legal viability of this theoretical approach to ISB in Michigan.

In March 2022 a state workgroup met to discuss the potential use of ISB in Michigan. The workgroup was comprised of key policy and decision-makers from the Department of Attorney General (DAG), Department of Environment, Great Lakes, and Energy (EGLE), and Department of Natural Resources (DNR). The workgroup was provided with the summary of past events and was tasked with determining the anthropogenic, environmental, and legal viability for authorizing ISB. It is the workgroup's recommendation that the use of ISB in freshwater in Michigan cannot be supported by EGLE or the DNR as a response strategy, either in an exercise or in the event of an unplanned release.

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The leading reason for the change in direction from 2017 is the increased concern over localized human health impacts from ISB on communities near a potential release site, the potential need to introduce accelerants to the environment to promote combustion, and the unknown plume composition and deposition over residential areas and the impacted water body. Residual elements from the combustion of petroleum product have been researched in a closed test environment. It is unknown how the ISB process and residuals from the burning would act in a river environment. While the use of ISB may reduce the volume of a release under certain conditions, the negative impacts from the process greatly outweigh any efficiencies gained.

Additionally, a Governor's Declaration of Emergency or Disaster to suspend substantive requirements of federal and state law for the purpose of the ISB exercise is not an option. After a legal review by the DAG, it is the DAG staff's advice that the state emergency declaration process as outlined in the Emergency Management Act, 1976 PA 390, as amended, cannot suspend substantive federal law or be used to authorize an activity that would be contradictory of state and federal laws.

In the event there is a release to a waterbody where ISB is being considered without State of Michigan support, the RRT representative for Michigan will notify and meet with EGLE Executive Office and program staff to discuss the operation and EGLE's response. Without the ability to suspend rules and the negative implications for human health and the environment, ISB should not be considered as a response tactic for any contingency planning in Michigan.

Please contact me if you would like to discuss or if you have concerns over this recommendation.

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