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Senate Bill 1052 (as introduced 10-30-24)
Sponsor: Senator Darrin Camilleri
Committee: Energy and Environment

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INTRODUCTION

The bill would require the Department of Environment, Great Lakes, and Energy (EGLE) to prepare, adopt, and update every five years a comprehensive State Hazardous and Radioactive Waste Management Plan. Among other requirements, the Plan would have to include an analysis of all hazardous or radioactive waste streams generated within the State and a determination of necessary in-State capacity to manage the amount of hazardous or radioactive waste generated in the State. Until the plan was adopted, the bill would issue a moratorium on licenses and permits for the operation of hazardous waste treatment, storage, and disposal facilities, and the moratorium would continue if a new or expanded facility would cause the total permitted capacity to exceed the current Plan's limits. The bill also would prohibit further disposal in the State of technologically enhanced naturally occurring radioactive material (TENORM), which are natural radioactive materials whose concentrations have been increased by human activity. Finally, the bill would require certain classes of injection wells to secure surety bonds for reclamation purposes.

FISCAL IMPACT

The bill would have a minor negative fiscal impact on EGLE. There would be increased administrative costs associated with analyzing and gathering the necessary data to produce an updated hazardous and radioactive waste management plan. There would also be administrative costs associated with oversight and implementation of the plans as they are developed and updated every five years.

The bill also would place a moratorium on permitting the establishment of new or expansion of existing hazardous or radioactive waste management facilities based upon these five-year plans. This means that some labor costs could be saved while permits do not require processing, but with fewer permit applications this would likely have a neutral effect on EGLE.

The bill would provide requirements for proof of financial responsibility, for which the State would be the sole beneficiary, of at least \$1.0 million for operators of Class I wells, and \$250,000 for operators of Class III wells. These minimums would have to be sufficient to cover costs associated with well plugging and reclamation. Additionally, this financial responsibility would have to include environmental pollution insurance coverage of at least \$5.0 million per occurrence for Class I wells, and \$2.5 million for Class III wells. The bill also would require proof of financial responsibility of at least \$2,500 for any test wells to cover costs of plugging and reclamation. Environmental insurance requirements could substantially mitigate costs to the State associated with well plugging or remediation when needed. These requirements and their administration would have an indeterminate negative fiscal impact on EGLE due to the time and labor costs associated with oversight.

MCL 324.11102 et al.

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CONTENT

The bill would amend the Natural Resources and Environmental Protection Act (NREPA) to do the following:

- Require EGLE to prepare and adopt a comprehensive State Hazardous and Radioactive Waste Management Plan and update the Plan every five years.**
- Specify the requirements of the Plan and require EGLE to conduct studies as considered necessary for the updated Plan.**
- Issue a moratorium on licenses and permits for the operation of hazardous waste treatment, storage, or disposal facilities until EGLE produced the Plan and extend the moratorium if issuing an operating license or permit for a new facility or the expansion of an existing facility would cause the total permitted capacity of hazardous waste to exceed the limit established in the current State Hazardous and Radioactive Waste Management Plan.**
- Prohibit the disposal of TENORM in the State.**
- Prohibit the construction, expansion, or installation of a new or converted class I or class IV well, except for Federally authorized class IV wells.**
- Require an operator of a Class I, a Class III, or a test well to file proof of financial responsibility that covered specific well reclamation activities and for which the State would be the sole beneficiary.**

Classes of Wells Defined

"Class I well" would mean any of the following:

- A well used by a generator of hazardous waste or the owner or operator of a hazardous waste management facility to inject hazardous waste beneath the lowermost formation that contains all or part of an underground source of drinking water within 1/4 mile of the well bore.
- An industrial and municipal disposal well that injects fluids beneath the lowermost formation that contains all or part of an underground source of drinking water within 1/4 mile of the well bore.
- A radioactive waste disposal well that injects fluids below the lowermost formation that contains all or part of an underground source of drinking water within 1/4 mile of the well bore.

"Class III well" would mean a well used for the extraction of minerals including, but not limited to, the following:

- Mining of sulfur by the Frasch process.
- In situ production of uranium or other metals, not including solution mining of conventional mines.
- Solution mining of salts or potash.

"Class IV well" would mean any of the following:

- A well used by a generator of hazardous waste or radioactive waste, by the owner or operator of a hazardous waste management facility, or by the owner or operator of a radioactive waste disposal site to dispose of hazardous waste or radioactive waste into a formation that contains all or part of an underground source of drinking water within 1/4 mile of the well bore.
- A well used by a generator of hazardous waste or radioactive waste, by the owner or operator of a hazardous waste management facility, or by the owner or operator of a

radioactive waste disposal site to dispose of hazardous waste or radioactive waste above a formation that contains all or part of an underground source of drinking water within 1/4 mile of the well bore.

- A well that is used by a generator of hazardous waste or the owner or operators of a hazardous waste management facility to dispose of hazardous waste and that is not a Class I or Class III well as defined by Federal regulations.

"Underground waste" would mean damage or injury to potable water, mineralized water, or other subsurface resources incidental to or resulting from drilling, equipping, or operating a well subject to Part 625 (Mineral Wells).

State Hazardous and Radioactive Waste Management Plan

The Act required the appropriate department to create one-time hazardous waste management plans for 1982 and 1990 based on the needs of the State in those years. The bill would require EGLE, by five years after the bill's effective date and every five years after, to prepare and adopt a comprehensive, updated State Hazardous and Radioactive Waste Management Plan. The newly required plan would modify requirements of previous plans and add new requirements.

The updated plan would have to meet all the following requirements:

- Be based on the location of generators, health and safety, transportation economics, types of waste, and existing treatment, storage, or disposal facilities.
- Based on information included in the plan, specify a maximum permitted capacity for hazardous or radioactive waste treatment, storage, or disposal facilities, which would have to be equal to the average amount of hazardous or radioactive waste expected to be generated in the State during the succeeding five-year period and could not be changed until the next five-year update of the plan was adopted.
- Provide for a reasonable geographic distribution of treatment, storage, and disposal facilities to meet existing and future needs and to comply with requirements regarding waste management facilities, including proposing criteria for determining acceptable locations for these facilities, which would have to include a consideration of a location's geology, geography, demography, and waste generation patterns, along with environmental factors, public health factors, and other relevant characteristics as determined by EGLE.
- Provide for a shift from landfilling hazardous waste to the in-plant reduction of hazardous waste and the recycling and treatment of hazardous waste.

The plan also would have to include all the following:

- An analysis of all hazardous or radioactive waste streams generated within the State, including waste volumes, classifications, and locations of origin.
- An inventory and assessment of current in-state hazardous or radioactive waste management capacity using information generated by EGLE and the Department of Labor and Economic growth.
- Projections of future in-State waste generation.
- A determination of necessary in-State capacity to manage an amount of hazardous or radioactive waste equal to the amount generated in the State.
- Siting criteria for any facilities determined to be necessary and which would prevent the concentration of facilities in communities overburdened by pollution.
- Recommendations for State policies and programs to minimize hazardous or radioactive waste generation.

- An evaluation of hazardous or radioactive waste reduction, recycling, and treatment technologies and best practices.
- A study and recommendation on whether Michigan should seek membership of an Interstate Low-Level Radioactive Waste Compact.
- Necessary legislative, administrative, and economic mechanisms, and a timetable to carry out the updated plan.

The bill would require EGLE to conduct studies as considered necessary for the updated plan. The studies could include:

- An inventory and evaluation of the sources of hazardous or radioactive waste generation within the State or from other states, including the types, quantities, and chemical and physical characteristics of the waste.
- An inventory and evaluation of current hazardous or radioactive waste management, minimization, or reduction practices and costs, including treatment, disposal, on-site recycling, reclamation, and other forms of source reduction within the state.
- A projection or determination of future hazardous or radioactive waste management needs based on an evaluation of existing capacities; treatment or disposal capabilities; manufacturing activity, limitations, and constraints; types, sizes, and general locations of treatment, storage, or disposal facilities within the State; and management control systems.
- An investigation and analysis of methods, incentives, or technologies for source reduction, reuse, recycling, or recovery of potentially hazardous or radioactive waste and a strategy for encouraging the utilization or reduction of hazardous or radioactive waste.
- An investigation and analysis of methods and incentives to encourage interstate and international cooperation in the management of hazardous or radioactive waste.
- An estimate of the public and private cost of treating, storing, or disposing of hazardous or radioactive waste.
- An investigation and analysis of alternate methods for treatment and disposal of hazardous or radioactive waste.

Public notice of the Plan

Upon completion of the updated plan, EGLE would have to post the plan on its website and publish a notice in two or more major newspapers and issue a statewide news release announcing the availability of the updated plan for inspection or purchase at cost by interested persons. The announcement would have to indicate where and how the updated plan could be obtained or reviewed and would have to indicate that at least six public hearings would have to be conducted at varying locations in the State before formal adoption. The first public hearing could not be held until at least 60 days had passed from the date of the notice announcing the availability of the updated plan. The remaining public hearings would have to be held within 120 days of the first public hearing at approximately equal time intervals.

After the public hearings, EGLE would have to prepare a written summary of the comments received, provide responses to the major concerns raised, make amendments to the updated plan that it considered advisable, and adopt the updated plan.

Moratorium on and Requirements of Operating Licenses and Permits

Until five years after the bill's effective date, or until the first updated State Hazardous and Radioactive Waste Management Plan was adopted and implemented, whichever was later, EGLE could not do any of the following:

- Issue an operating license for a new hazardous waste treatment, storage, or disposal facility.
- Amend an operating license for an existing hazardous waste treatment, storage, or disposal facility to authorize the expansion of operations, overall capacity, or the facility.
- Issue a permit for a new radioactive waste management facility.
- Amend a permit for an existing radioactive waste management facility to authorize the expansion of operations, overall capacity, or the facility.

After the moratorium on licensing and permitting ended, EGLE still could not issue an operating license or permit for a new hazardous waste treatment, storage, or disposal facility or hazardous waste management facility or the expansion of an existing facility if doing so would cause the total permitted capacity to exceed the limit established in the current State Hazardous and Radioactive Waste Management Plan. "Total permitted capacity" would mean the maximum amount of waste that all permitted facilities in the State were authorized to manage annually under their current permits.

The Department could not issue a permit or approval to establish or expand a hazardous waste treatment, storage, or disposal facility or radioactive waste management facility if any of the following applied:

- The facility was proposed to be in any city, village, township, or county where a hazardous waste treatment, storage, or disposal facility, radioactive waste management facility, class I well, or class IV well was currently operating or had operated within the past 50 years.
- The facility was proposed to be located within 100 miles of a currently operating hazardous waste treatment, storage, or disposal facility, radioactive waste management facility, class I well, or class IV well.

A permit also could not be issued if any of the following applied to a census tract within a three-mile radius of the facility's proposed location:

- The population density exceeded the State average population density by 50% or more, based on the most recent census data.
- The percentage of population in households where the household income was less than or equal to twice the Federal poverty level equaled or exceeded the eightieth percentile for census tracts in the State.
- The overall score, as measured by the Michigan Environmental Justice Screening Tool (MiEJScreen) or its equivalent, for any census tract within a 3-mile radius met or exceeded the eightieth percentile of census tracts in the State.

TENORM Prohibition

Currently, a person is prohibited from delivering TENORM (technologically enhanced naturally occurring radioactive waste) with specified concentrations of radium to a landfill in the State or permitting the disposal of TENORM with specified concentrations of radium in the landfill in the State. The bill would delete the schedule of concentrations and instead prohibit all TENORM from being delivered or disposed of in the State.

If EGLE previously authorized in an operating license the disposal of TENORM with concentrations of radium-226 more than 50 picocuries per gram, radium-228 more than 50 picocuries per gram, or lead-210 more than 260 picocuries per gram, or any combination thereof, but not more than 500 picocuries per gram for each radionuclide, the operating license would constitute a license from the Radiation Control Authority to possess the TENORM, but not to acquire additional TENORM after the effective date of the bill.

The current requirements placed on an operator of a landfill that already contained TENORM would remain in effect. Additionally, the owner or operator would have to submit a report that summarized the following information for all TENORM disposed at the landfill during the year the bill took effect:

- The concentrations of radium-226, radium-228, lead-210, and any other radionuclide identified using gamma spectroscopy, or an equivalent analytical method, in the TENORM based on techniques for representative sampling and waste characterization approved by EGLE.
- An estimate of the total mass of the TENORM.
- An estimate of the total radium-226 activity, the total radium-228 activity, and the total lead-210 activity of the TENORM.
- The dates of delivery.

The owner or operator of a landfill would have to maintain records of the location and elevation of TENORM disposed of at the landfill before the effective date of the bill.

Within 45 days after the end of each fiscal year, through the fiscal year in which the bill took effect, the owner or operator of a type II landfill would have to submit to the Department a report that summarized the following for all TENORM disposed at the landfill during the previous fiscal year:

- The concentrations of radium-226, radium-228, lead-210, and any other radionuclide identified using gamma spectroscopy, or an equivalent analytical method, in the TENORM based on techniques for representative sampling and waste characterization approved by EGLE.
- An estimate of the total mass of the TENORM.
- An estimate of the total radium-226 activity, the total radium-228 activity, and the total lead-210 activity of the TENORM.
- The dates of delivery.

Additionally, the bill would prohibit a person from delivering TENORM to a class I well or class IV well in the State for disposal. The owner or operator of a class I well or class IV well would be prohibited from disposing of TENORM in the well.

Class I and Class IV Well Prohibition

Under the bill, the construction, expansion, or installation of a new or converted class I or class IV well would be prohibited. This prohibition would not apply to a class IV well that was authorized by the Code of Federal Regulations or that the Code of Federal Regulations provided was *not* prohibited.

The following also would not be prohibited:

- Maintenance, repair, or like-for-like replacement of equipment necessary for the safe operation of an existing well.
- An equipment change at an existing well that demonstrably reduced the amount of hazardous or radioactive materials stored or emitted due to improved treatment methods or technologies, if the change did not increase the well's overall capacity or extend its operational lifespan.
- An expansion of an existing well's footprint that did not increase its overall capacity but was solely for the purpose of creating or enlarging a buffer zone between well operations and the public or a sensitive environmental area.

A proposed equipment change or well expansion would have to be approved by EGLE. The well operator would have to submit to EGLE documentation demonstrating how the proposed change would meet the bill's requirements, and EGLE would have to make the documentation publicly available and provide for a public comment period of at least 60 days before deciding to approve or reject the proposed change.

While reviewing proposals, the Department would have to prioritize changes that provide the greatest reduction in risk to public health and the environment. The Department could not approve any changes that could result in increased exposure or risk to overburdened communities.

Financial Responsibility for Disposal

Within 180 days after the bill's effective date and annually thereafter, an operator of a class I well or a class III well would be required to, for each well, file proof of financial responsibility for which the State would be the sole beneficiary.

This financial responsibility would have to include a surety bond issued by an authorized insurer whose certificate of authority was in good standing, a cash account, or an automatically annually renewing certificate of deposit. The surety bond would have to be at least \$1.0 million for a class I well or \$250,000 for a class III well and be sufficient to cover the costs of well plugging and reclamation, as determined by EGLE based on engineering, geotechnical, environmental, or location conditions. The surety bond also would have to comply, and would have to be interpreted to comply, with all the following, as applicable:

- The terms of the instrument could not be altered without the approval of EGLE.
- A cash account would be managed by an independent financial institution.
- Cancellation of a bond or letter of credit would require at least 120 days' advance notice.

The instrument would have to remain in effect until EGLE determined that all the following applied:

- The operator's class I well or class III well had been permanently plugged and abandoned in compliance with law and in a manner that protected underground sources of drinking water.
- All contamination had been remediated.
- The soil at the site had been stabilized and rehabilitated.
- The ecosystem had been restored.

Payment under the required instrument would not relieve the operator from any other legal requirements. Assets under the instrument would revert to the operator's control, at the operator's request, only after the operator had adequately plugged the wells, reclaimed the well site, and complied with all orders of the supervisor or EGLE under NREPA.

The financial responsibility would also include environmental pollution insurance coverage that was at least \$5.0 million per occurrence for a class I well or \$2.5 million per occurrence for a class III well and sufficient to cover the worst-case costs of damage to private property, health, and natural resources, of replacing drinking water supplies in case of water contamination, and of injuries, damages, or loss related to pollution or diminution of a water supply, as determined by EGLE.

The environmental pollution insurance coverage would have to comply with all the following:

- After the well was plugged, the insurance would have to remain in effect for 30 years for a class I well or five years for a class III well.
- The insurance was provided by an insurance carrier authorized, licensed, or permitted to conduct such insurance business in the State and that held at least an A- rating by AM Best or any comparable rating service.
- The insurance was not issued by a captive insurer, surplus line insurer, or risk retention group.

Within 180 days after bill's effective date and annually thereafter, an operator of a test well would have to, for each well, file proof of financial responsibility for which the State was the sole beneficiary.¹ The financial responsibility would have to be a surety bond issued by an authorized insurer whose certificate of authority was in good standing, a cash account, or an automatically annually renewing certificate of deposit.

The financial responsibility would have to be at least \$2,500 and be sufficient to cover the costs of well plugging and reclamation, as determined by EGLE based on engineering, geotechnical, environmental, or location conditions.

The financial responsibility would have to comply, and would have to be interpreted to comply, with the following, as applicable:

- The terms of the instrument could not be altered without the approval of EGLE.
- A cash account that was managed by an independent financial institution.
- Cancellation of a bond or letter of credit required at least 120 days' advance notice.

The instrument would have to remain in effect until EGLE determined that all the following apply:

- The test well had been permanently plugged and abandoned in compliance with law and in a manner that protected underground sources of drinking water.
- All contamination had been remediated.
- The soil at the site had been stabilized and rehabilitated.
- The ecosystem had been restored.

Payment under this instrument would not relieve the operator from any other legal requirements. Assets under the instrument would revert to the operator's control, at the operators request, only after the operator had adequately plugged the wells, reclaimed the well site, and complied with all orders of the supervisor or Department under the bill.

Repeals

The bill would repeal sections 11111 and 11112 of NREPA. Section 11111 requires EGLE to adopt or reject a State Hazardous Waste Management Plan within 60 days. Section 11112 requires EGLE to make a final decision on an updated Plan 120 days after EGLE first receives the updated plan.

¹ "Test well" means a well, core hole, core test, observation well, or other well drilled from the surface to determine the presence of a mineral, mineral resource, ore, or rock unit, or to obtain geological or geophysical information or other subsurface data related to mineral exploration and extraction. The term does not include holes drilled in the operation of a quarry, open pit, or underground mine, or any wells not related to mineral exploration or extraction.