



## 104TH GENERAL ASSEMBLY

### State of Illinois

### 2025 and 2026

### SB2425

Introduced 2/7/2025, by Sen. Laura M. Murphy

#### SYNOPSIS AS INTRODUCED:

420 ILCS 20/3  
420 ILCS 20/4

from Ch. 111 1/2, par. 241-3  
from Ch. 111 1/2, par. 241-4

Amends the Illinois Low-Level Radioactive Waste Management Act. Defines "water treatment residuals". Deletes provisions regarding generator and broker registration. Adds new provisions regarding generator and broker registration requiring registration with the Illinois Emergency Management Agency and Office of Homeland Security within 60 days after the commencement of generating or taking possession of low-level radioactive waste. Provides an exemption for a generator that stores waste containing or composed of radioactive material with a physical half-life of less than 120 days. Provides an exemption for a generator of water treatment residuals. Makes technical changes.

LRB104 12193 BDA 22297 b

1 AN ACT concerning safety.

2 **Be it enacted by the People of the State of Illinois,**  
3 **represented in the General Assembly:**

4 Section 5. The Illinois Low-Level Radioactive Waste  
5 Management Act is amended by changing Sections 3 and 4 as  
6 follows:

7 (420 ILCS 20/3) (from Ch. 111 1/2, par. 241-3)

8 Sec. 3. Definitions. As used in this Act:

9 "Agency" or "IEMA-OHS" means the Illinois Emergency  
10 Management Agency and Office of Homeland Security, or its  
11 successor agency.

12 "Broker" means any person who takes possession of  
13 low-level waste for purposes of consolidation and shipment.

14 "Compact" means the Central Midwest Interstate Low-Level  
15 Radioactive Waste Compact.

16 "Decommissioning" means the measures taken at the end of a  
17 facility's operating life to assure the continued protection  
18 of the public from any residual radioactivity or other  
19 potential hazards present at a facility.

20 "Director" means the Director of the Agency.

21 "Disposal" means the isolation of waste from the biosphere  
22 in a permanent facility designed for that purpose.

23 "Facility" means a parcel of land or site, together with

1 structures, equipment and improvements on or appurtenant to  
2 the land or site, which is used or is being developed for the  
3 treatment, storage or disposal of low-level radioactive waste.  
4 "Facility" does not include lands, sites, structures, or  
5 equipment used by a generator in the generation of low-level  
6 radioactive wastes.

7 "Generator" means any person who produces or possesses  
8 low-level radioactive waste in the course of or incident to  
9 manufacturing, power generation, processing, medical diagnosis  
10 and treatment, research, education, or other activity.

11 "Hazardous waste" means a waste, or combination of wastes,  
12 which because of its quantity, concentration, or physical,  
13 chemical, or infectious characteristics may cause or  
14 significantly contribute to an increase in mortality or an  
15 increase in serious, irreversible, or incapacitating  
16 reversible, illness; or pose a substantial present or  
17 potential hazard to human health or the environment when  
18 improperly treated, stored, transported, or disposed of, or  
19 otherwise managed, and which has been identified, by  
20 characteristics or listing, as hazardous under Section 3001 of  
21 the Resource Conservation and Recovery Act of 1976, P.L.  
22 94-580 or under regulations of the Pollution Control Board.

23 "High-level radioactive waste" means:

24 (1) the highly radioactive material resulting from the  
25 reprocessing of spent nuclear fuel including liquid waste  
26 produced directly in reprocessing and any solid material

1 derived from the liquid waste that contains fission  
2 products in sufficient concentrations; and

3 (2) the highly radioactive material that the Nuclear  
4 Regulatory Commission has determined, on July 21, 1988  
5 (the effective date of Public Act 85-1133) ~~this Amendatory~~  
6 ~~Act of 1988~~, to be high-level radioactive waste requiring  
7 permanent isolation.

8 "Low-level radioactive waste" or "waste" means radioactive  
9 waste not classified as (1) high-level radioactive waste, (2)  
10 transuranic waste, (3) spent nuclear fuel, or (4) byproduct  
11 material as defined in Sections 11e(2), 11e(3), and 11e(4) of  
12 the Atomic Energy Act of 1954 (42 U.S.C. 2014). This  
13 definition shall apply notwithstanding any declaration by the  
14 federal government, a state, or any regulatory agency that any  
15 radioactive material is exempt from any regulatory control.

16 "Mixed waste" means waste that is both "hazardous waste"  
17 and "low-level radioactive waste" as defined in this Act.

18 "Nuclear facilities" means nuclear power plants,  
19 facilities housing nuclear test and research reactors,  
20 facilities for the chemical conversion of uranium, and  
21 facilities for the storage of spent nuclear fuel or high-level  
22 radioactive waste.

23 "Nuclear power plant" or "nuclear steam-generating  
24 facility" means a thermal power plant in which the energy  
25 (heat) released by the fissioning of nuclear fuel is used to  
26 boil water to produce steam.

1 "Nuclear power reactor" means an apparatus, other than an  
2 atomic weapon, designed or used to sustain nuclear fission in  
3 a self-supporting chain reaction.

4 "Person" means an individual, corporation, business  
5 enterprise, or other legal entity either public or private and  
6 any legal successor, representative, agent, or agency of that  
7 individual, corporation, business enterprise, or legal entity.

8 "Post-closure care" means the continued monitoring of the  
9 regional disposal facility after closure for the purposes of  
10 detecting a need for maintenance, ensuring environmental  
11 safety, and determining compliance with applicable licensure  
12 and regulatory requirements, and includes undertaking any  
13 remedial actions necessary to protect public health and the  
14 environment from radioactive releases from the facility.

15 "Regional disposal facility" or "disposal facility" means  
16 the facility established by the State of Illinois under this  
17 Act for disposal away from the point of generation of waste  
18 generated in the region of the Compact.

19 "Release" means any spilling, leaking, pumping, pouring,  
20 emitting, emptying, discharging, injecting, escaping,  
21 leaching, dumping, or disposing into the environment of  
22 low-level radioactive waste.

23 "Remedial action" means those actions taken in the event  
24 of a release or threatened release of low-level radioactive  
25 waste into the environment, to prevent or minimize the release  
26 of the waste so that it does not migrate to cause substantial

1 danger to present or future public health or welfare or the  
2 environment. The term includes, but is not limited to, actions  
3 at the location of the release such as storage, confinement,  
4 perimeter protection using dikes, trenches or ditches, clay  
5 cover, neutralization, cleanup of released low-level  
6 radioactive wastes, recycling or reuse, dredging or  
7 excavations, repair or replacement of leaking containers,  
8 collection of leachate and runoff, onsite treatment or  
9 incineration, provision of alternative water supplies, and any  
10 monitoring reasonably required to assure that these actions  
11 protect human health and the environment.

12 "Scientific Surveys" means, collectively, the Illinois  
13 State Geological Survey and the Illinois State Water Survey of  
14 the University of Illinois.

15 "Shallow land burial" means a land disposal facility in  
16 which radioactive waste is disposed of in or within the upper  
17 30 meters of the earth's surface. However, this definition  
18 shall not include an enclosed, engineered, structurally  
19 re-enforced and solidified bunker that extends below the  
20 earth's surface.

21 "Small modular reactor" or "SMR" means an advanced nuclear  
22 reactor: (1) with a rated nameplate capacity of 300 electrical  
23 megawatts or less; and (2) that may be constructed and  
24 operated in combination with similar reactors at a single  
25 site.

26 "Storage" means the temporary holding of waste for

1 treatment or disposal for a period determined by Agency  
2 regulations.

3 "Treatment" means any method, technique, or process,  
4 including storage for radioactive decay, designed to change  
5 the physical, chemical, or biological characteristics or  
6 composition of any waste in order to render the waste safer for  
7 transport, storage, or disposal, amenable to recovery,  
8 convertible to another usable material, or reduced in volume.

9 "Waste management" means the storage, transportation,  
10 treatment, or disposal of waste.

11 "Water treatment residuals" means biosolids, sludge,  
12 filter media, anthracite, scales, or other solids, either  
13 alone or as a component of liquid mixtures or solutions, that  
14 are technologically enhanced in combined radium concentration  
15 (radium-226, radium-228 or associated progeny) as a result of  
16 the treatment of water or sewage containing naturally  
17 occurring radium from groundwater.

18 (Source: P.A. 103-306, eff. 7-28-23; 103-569, eff. 6-1-24;  
19 revised 7-30-24.)

20 (420 ILCS 20/4) (from Ch. 111 1/2, par. 241-4)

21 Sec. 4. Generator and broker registration.

22 (a)(1) Except as provided in subsection (b), all  
23 generators of any amount of low-level radioactive waste in  
24 Illinois shall register with the Agency within 60 days of the  
25 commencement of generating any low-level radioactive wastes.

1 The registration shall be in a format prescribed by the Agency  
2 and shall contain all of the following: the name, address, and  
3 officers of the generator; information on the types of wastes  
4 produced or possessed; and any other information required by  
5 the Agency.

6 (2) All registered generators of any amount of low-level  
7 radioactive waste in Illinois shall file an annual report with  
8 the Agency. The annual report shall contain information on the  
9 types and quantities of low-level wastes produced in the  
10 previous year and expected to be produced in the future; the  
11 methods used to manage these wastes; the technological  
12 feasibility, economic reasonableness, and environmental  
13 soundness of alternative treatment, storage and disposal  
14 methods; and any other information required by the Agency.

15 (3) All brokers of any amount of low-level radioactive  
16 waste in Illinois shall register with the Agency within 60  
17 days after the commencement of taking possession of any  
18 low-level radioactive waste. The registration shall be in a  
19 format prescribed by the Agency and shall contain the name,  
20 address, and officers of the broker and any other information  
21 required by the Agency.

22 (4) All registered brokers of any amount of low-level  
23 radioactive waste in Illinois shall file an annual report with  
24 the Agency. The annual report shall contain information on the  
25 types and quantities of low-level radioactive wastes received  
26 and shipped, identification of the generators from whom such



1 wastes were received, and the destination of shipments of such  
2 wastes.

3 (5) All registration forms and annual reports required to  
4 be filed with the Agency may be made available to the public  
5 for inspection and copying pursuant to the Freedom of  
6 Information Act.

7 (b) Generators who meet one of the following provisions  
8 are exempt from the registration requirements in paragraph (1)  
9 of subsection (a):

10 (1) A generator who stores waste containing or  
11 composed of radioactive material with a physical half-life  
12 of less than 120 days for decay-in-storage before disposal  
13 as normal waste or recycling without regard to its  
14 radioactivity provided a minimum of 10 half-lives have  
15 elapsed. This does not exempt the generator from any other  
16 State or federal requirements; or

17 (2) A generator of water treatment residuals that have  
18 a combined radium concentration of less than or equal to  
19 200 picocuries per gram and who has registered pursuant to  
20 the Agency's regulatory program for water treatment  
21 residuals.

22 ~~(a) All generators and brokers of any amount of low-level~~  
23 ~~radioactive waste in Illinois shall register with the Agency.~~  
24 ~~Generators shall register within 60 days of the commencement~~  
25 ~~of generating any low-level radioactive wastes. Brokers shall~~  
26 ~~register within 60 days of taking possession of any low level~~

1 ~~radioactive waste. Such registration shall be on a form~~  
2 ~~developed by the Agency and shall contain the name, address~~  
3 ~~and officers of the generator or broker, information on the~~  
4 ~~types and amounts of wastes produced or possessed and any~~  
5 ~~other information required by the Agency.~~

6 ~~(b) All registered generators and brokers of any amount of~~  
7 ~~low level radioactive waste in Illinois shall file an annual~~  
8 ~~report with the Agency. The annual report for generators shall~~  
9 ~~contain information on the types and quantities of low level~~  
10 ~~wastes produced in the previous year and expected to be~~  
11 ~~produced in the future, the methods used to manage these~~  
12 ~~wastes, the technological feasibility, economic reasonableness~~  
13 ~~and environmental soundness of alternative treatment, storage~~  
14 ~~and disposal methods and any other information required by the~~  
15 ~~Agency. The annual report for brokers shall contain~~  
16 ~~information on the types and quantities of low level~~  
17 ~~radioactive wastes received and shipped, identification of the~~  
18 ~~generators from whom such wastes were received, and the~~  
19 ~~destination of shipments of such wastes.~~

20 ~~(c) All registration forms and annual reports required to~~  
21 ~~be filed with the Agency shall be made available to the public~~  
22 ~~for inspection and copying.~~

23 (Source: P.A. 95-777, eff. 8-4-08.)