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H.B. 104
133rd General Assembly

Bill Analysis

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Version: As Reported by House Energy and Natural Resources

Primary Sponsor: Rep. Stein

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SUMMARY

- Establishes the Ohio Nuclear Development Authority within the Ohio Department of Commerce consisting of nine members, appointed by the Governor, with the advice and consent of the Senate, from the safety, industry, and engineering research and development stakeholder groups within the nuclear-engineering-and-manufacturing industry.
- Establishes the Authority for the following purposes:
 - To be an information resource for Ohio and certain federal agencies regarding advanced-nuclear-research reactors and isotope technologies;
 - To make Ohio a leader regarding new-type advanced-nuclear-research reactors, isotopes, and high-level-nuclear-waste reduction and storage.
- Grants the Authority extensive power to fulfill its nuclear technology purposes specifically with respect to advanced nuclear reactor commercialization, isotope production, and nuclear waste reduction.
- Requires the Authority to adopt rules for an Ohio State Nuclear Technology Research Program to do the following:
 - Develop and study advanced-nuclear-research reactors to produce isotopes and to reduce Ohio's high-level nuclear waste;
 - Reasonably ensure Ohioans of their safety with respect to nuclear-technology research and development and radioactive materials.
- Requires the Authority to (1) submit an annual report of its activities to the Governor, Speaker of the House, President of the Senate, and the Chairs of the House and Senate committees that oversee energy-related issues and (2) post the report on the Authority's website.

DETAILED ANALYSIS

Ohio nuclear development authority

Creation

The bill creates within the Department of Commerce, the Ohio Nuclear Development Authority, which the bill refers to as the “Authority.”¹

Membership and appointment

Composition

The bill requires that the Authority consist of nine members and must represent three stakeholder groups within the nuclear-engineering-and-manufacturing industry. The three stakeholder groups are: Safety, Industry, and Engineering Research and Development.²

Qualifications

A member appointed from the Safety group must hold at least a bachelor’s degree in nuclear, mechanical, chemical, or electrical engineering and at least one of the following must apply to the member:

- Be a recognized professional in nuclear-reactor safety or developing ISO 9000 standards;
- Been employed by, or has worked closely with, the U.S. Department of Energy (USDOE) or the U.S. Nuclear Regulatory Commission (USNRC), and the member has a professional background in nuclear-energy-technology development or advanced-nuclear-reactor concepts;
- Been employed by a contractor that has built concept reactors and also worked with hazardous substances, either nuclear or chemical, during that employment.

A member appointed from the Industry group must have at least five years of experience in one or more of the following:

- Nuclear-power-plant operation;
- Processing and extracting isotopes;
- Managing a facility that deals with hazardous substances, either nuclear or chemical;
- Handling and storing nuclear waste.

A member appointed from the Engineering Research and Development group shall hold at least a bachelor’s degree in nuclear, mechanical, chemical, or electrical engineering and

¹ R.C. 4164.01 and 4164.04.

² R.C. 4164.05(A).

that member shall also be a recognized professional in at least one of the following areas of study:

- Advanced-nuclear reactors;
- Materials science involving the study of alloys and metallurgy, ceramics, or composites;
- Molten-salt chemistry;
- Solid-state chemistry;
- Chemical physics;
- Actinide chemistry;
- Instrumentation and sensors;
- Control systems.

Additionally, each member of the Authority must be a citizen of the U.S. and resident of Ohio.³

Term of service

Each member of the Authority serves a five-year term.⁴

Appointment

The bill requires the Governor to make all appointments to the Authority with Senate confirmation. Initial appointments to the Authority must be made no later than 60 days after the effective date of an agreement regarding the delegation of authority relating to nuclear energy with any of the following entities:

- The USNRC with respect to agreement state status (see “**Agreement state status with USNRC,**” below);
- The USDOE;
- Any branch of the U.S. military;
- Any other federal agency, department, or program governing the construction and operation of noncommercial power-producing nuclear reactors and the handling of radioactive materials.

Members are to begin performing their duties immediately after appointment.⁵

³ R.C. 4164.05(B) and (C).

⁴ R.C. 4164.05(D).

⁵ R.C. 4164.05(A) and (F); R.C. 4164.07.

Other employment not forfeited

The bill provides that, notwithstanding any law to the contrary, no officer or employee of the state of Ohio can be deemed to have forfeited, or actually have forfeited, the officer's or employee's office or employment due to acceptance of membership on the Authority or by providing service to the Authority.⁶

Vacancies

Any appointment to fill a vacancy on the authority shall be made for the unexpired term of the member whose death, resignation, or removal created the vacancy.⁷

Meetings

The bill requires Authority meetings to be held in accordance with Ohio's Open Meetings Law.⁸

Use of Department of Commerce staff and experts

The bill allows the Authority to use Ohio Department of Commerce staff and experts for the purpose of carrying out the Authority's duties. This use is to occur in the manner provided by mutual arrangement between the Authority and the Department.⁹

Authority purposes

The bill establishes the Authority for the following purposes:

- To be an information resource on advanced-nuclear-research reactors, isotopes, and isotope technologies for the state and USNRC, all branches of the U.S. military, and the USDOE;
- To make Ohio a leader in the development and construction of new-type advanced-nuclear-research reactors, a national and global leader in the commercial production of isotopes and research, and a leader in the research and development of high-level-nuclear-waste reduction and storage technology.¹⁰

Authority powers

Agreement state status with USNRC

The bill allows the Authority to pursue agreement state status for the assumption by Ohio of specified licensing and related regulatory authority from the USNRC with respect to byproduct material, source material, the commercial disposal of low-level radioactive waste,

⁶ R.C. 4164.08.

⁷ R.C. 4164.05(E).

⁸ R.C. 4164.13; R.C. 121.22, not in the bill.

⁹ R.C. 4164.12.

¹⁰ R.C. 4164.10.

and special nuclear material in quantities not sufficient to form a critical mass. Under current law, the Ohio Department of Health (ODH) is the only agency authorized to pursue such an agreement. The bill permits the Authority and, under continuing law, requires ODH to enter into negotiations with the USNRC for pursuing such an agreement.¹¹

Necessary and convenient powers

The bill grants the Authority all powers necessary and convenient for carrying out its statutory purpose, and specifically states the following powers:

- To adopt bylaws for the management and regulation of its affairs;
- To develop and adopt a strategic plan for carrying the Authority's purposes stated in the bill;
- To foster innovative partnerships and relationships in Ohio and among Ohio's public institutions of higher education, private companies, federal laboratories, and nonprofit organizations to accomplish its purposes stated in the bill;
- To identify and support, in cooperation with the public and private sectors, the development of education programs related to Ohio's isotope industry;
- To assume any regulatory powers delegated from the USNRC, USDOE, any U.S. military branch, or similar federal agencies, departments, or programs, governing the construction and operation of noncommercial power-producing nuclear reactors and the handling of radioactive materials;
- To act in place of the Governor in approving agreements with the USNRC and joint-development agreements with the USDOE or an equivalent regulatory agency in the event that the Authority requests any of the following:
 - The USNRC to delegate rules for a state-based nuclear research-and-development program;
 - To jointly develop advanced-nuclear-research-reactor technology with the USDOE under the USDOE's authority;
 - To jointly develop advanced-nuclear-research-reactor technology with the U.S. Department of Defense (USDOD) or another U.S. military agency under the authority of the department or agency.¹²

Advanced-nuclear-reactor-component commercialization

The bill requires the Authority to work with industrial and academic institutions and the USDOE or U.S. military branches to approve designs for the commercialization of advanced-nuclear-reactor components. The bill states that those components may include neutronics

¹¹ R.C. 3748.03.

¹² R.C. 4164.11.

analysis and experimentation; safety and plant safety; fuels and materials, fuels-and-materials research and development, testing programs to develop fuels and materials-manufacturing processes, experimental data, formulae, technological processes, and facilities and equipment used to manufacture advanced-nuclear-reactor fuels and materials; steam-supply systems and associated components and equipment; engineered-safety features and associated components; building; instrumentation, control, and application of computer science; quality and inspection practices; plant design and construction, debug, test-run, operation, maintenance, and decommissioning technology; economic methodology and evaluation technology; treatment, storage, recycling, and disposal technology for advanced-nuclear-reactor and system-spent fuel; treatment, storage, and disposal technology for advanced-nuclear-reactor and system radioactive waste; and other areas that the parties and their executive agents agree upon in writing.¹³

Nuclear waste and isotope production

The bill requires the Authority to give priority to projects that reduce nuclear waste and produce isotopes.¹⁴

Essential governmental function

The bill labels the Authority's exercise of its powers as a performance of an essential governmental function and addresses matters of public necessity for which public moneys may be spent and private property acquired.¹⁵

Annual report

The bill requires that on or before July 4 of each year, the Authority must submit an annual report of its activities to the Governor, the Speaker of the House of Representatives, the President of the Senate, and the chairs of the House and Senate committees that oversee energy-related issues. This report must also be posted to the Authority's website.¹⁶

Rules

Rules governing reactors and nuclear waste

The bill requires the Authority to adopt rules, under the Ohio Administrative Procedure Act (R.C. Chapter 119), provided for by the USNRC, USDOE, USDOD, or another U.S. military agency, or a comparable federal agency for an Ohio State Nuclear Technology Research Program for the purposes of developing and studying advanced-nuclear-research reactors to produce isotopes and to reduce Ohio's high-level nuclear waste. The rules must reasonably

¹³ R.C. 4164.15.

¹⁴ R.C. 4164.16.

¹⁵ R.C. 4164.04.

¹⁶ R.C. 4164.18.

ensure Ohioans of their safety with respect to nuclear-technology research and development and radioactive materials.¹⁷

Rules not superseded

The bill prohibits rules adopted under continuing law by the Director of ODH for radiation control from conflicting with or superseding the rules adopted by the Authority under the bill. Similarly, the bill states that it is not to be construed as superseding any agreement between ODH and the USNRC that has been entered into regarding agreement state status (see discussion above) with respect to regulating activities not within the scope of activities of the Authority.¹⁸

HISTORY

Action	Date
Introduced	02-26-19
Reported, H. Energy and Natural Resources	05-28-20

H0104-RH-133/ar

¹⁷ R.C. 4164.20.

¹⁸ R.C. 3748.23 and 4164.19.