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# OHIO LEGISLATIVE SERVICE COMMISSION

Office of Research  
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Legislative Budget  
Office

H.B. 434  
134<sup>th</sup> General Assembly

## Bill Analysis

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**Version:** As Passed by the House

**Primary Sponsor:** Rep. Stein

Reid J. Fleeson, Attorney

## SUMMARY

### Ohio Nuclear Development Authority

- Establishes the Ohio Nuclear Development Authority (Authority) within the Ohio Department of Development 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, isotopes, 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.

## **Ohio Nuclear Development Authority Nominating Council**

- Establishes the Ohio Nuclear Development Authority Nominating Council (Council), consisting of seven members, five members appointed by the Governor from the Ohio State University's Nuclear Engineering External Advisory Board, alongside the President of the Senate, the Speaker of the House, or their respective designees.
- Requires the Council to review, evaluate, and make recommendations to the Governor for potential Authority member appointees, which the Governor must select from.
- Designates time limits for the appointment of membership to the Council and for the Council to provide recommendation lists to the Governor, as well as term limits for Council members.
- Creates various requirements regarding Council meetings and activities, such as when meetings must occur, adoption of bylaws, recordkeeping, and selection and duties of the Council chairperson and secretary.

## **Nuclear agreements**

- Permits the Governor to enter into agreements with the U.S. Department of Energy (USDOE) or branches of the U.S. military to permit the state to license and exercise related regulatory authority with respect to byproduct material, source material, the commercial disposal of low-level radioactive waste, and special nuclear material in quantities not sufficient to form a critical mass.
- Permits the Authority to negotiate and enter into the same type of nuclear licensing and regulatory agreements (described above) with the USNRC, USDOE, or branches of the U.S. military, and to do so on behalf of the Governor.

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## **TABLE OF CONTENTS**

Overview .....	3
Ohio Nuclear Development Authority .....	4
Creation .....	4
Membership and appointment .....	4
Composition.....	4
Qualifications.....	4
Term of service .....	5
Appointment requirements.....	5
Other employment not forfeited .....	6
Vacancies .....	6
Meetings.....	6

Use of DEV staff and experts .....	6
Authority purposes.....	6
Authority powers.....	7
Necessary and convenient powers.....	7
Advanced-nuclear-reactor-component commercialization .....	7
Nuclear waste and isotope production .....	8
Essential governmental function.....	8
Annual report .....	8
Rules .....	8
Rules governing reactors and nuclear waste .....	8
Rules not superseded .....	9
Ohio Nuclear Development Authority Nominating Council .....	9
Creation .....	9
Membership, appointment, and meetings .....	9
Composition.....	9
Term of service .....	9
Initial appointment.....	10
Vacancies .....	10
Meetings.....	10
Members uncompensated .....	10
Council roles .....	10
Tasks .....	10
List of possible appointees .....	11
Solicit comments .....	11
Recommendations to the General Assembly.....	11
Nuclear agreements.....	11
Governor .....	12
Authority .....	12

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## DETAILED ANALYSIS

### Overview

The bill creates the Ohio Nuclear Development Authority (Authority) to make Ohio a leader regarding nuclear energy and other nuclear-energy-related research, development, and construction. It further creates the Ohio Nuclear Development Authority Nominating Council (Council) to make recommendations regarding member appointments to the Authority. The General Assembly's intent in enacting the law creating and governing the Authority and Council

is to encourage the law's use as a model for future legislation to further the pursuit of innovative research and development for any industry in Ohio.<sup>1</sup>

The bill also modifies the law regarding state authority to negotiate and enter into certain nuclear licensing and regulatory agreements with the federal government.

## **Ohio Nuclear Development Authority**

### **Creation**

The bill creates the Authority within the Department of Development (DEV).<sup>2</sup>

### **Membership and appointment**

#### **Composition**

The Authority is to consist of nine members appointed by the Governor and representing three stakeholder groups within the nuclear-engineering-and-manufacturing industry. The three stakeholder groups are: Safety, Industry, and Engineering Research and Development.<sup>3</sup>

#### **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.

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<sup>1</sup> R.C. 4164.02.

<sup>2</sup> R.C. 4164.01(A) and 4164.04.

<sup>3</sup> R.C. 4164.05(A).

**A member appointed from the Engineering Research and Development group** must hold at least a bachelor's degree in nuclear, mechanical, chemical, or electrical engineering and 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.<sup>4</sup>

### **Term of service**

Each member of the Authority serves a five-year term.<sup>5</sup>

### **Appointment requirements**

The bill requires Senate confirmation of all appointments to the Authority. The Governor must appoint members and fill vacancies in the membership of the Authority from lists of nominees recommended by the Council (see "**Ohio Nuclear Development Authority Nominating Council**," below). The Governor has discretion to reject the Council's nominations and reconvene the Council to recommend additional nominees. If the Council is reconvened and provides the Governor with a second list of nominees, the Governor must make the required appointments to the Authority from the names on the Council's first or second list.<sup>6</sup>

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 (see "**Nuclear agreements**," below) with any of the following entities:

- The USNRC;
- The USDOE;

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<sup>4</sup> R.C. 4164.05(B) and (C).

<sup>5</sup> R.C. 4164.05(D).

<sup>6</sup> R.C. 4164.051 to 4164.053.

- Any branch of the U.S. military;

No member may be appointed until such an agreement delegating nuclear energy authority is reached. Members are to begin performing their duties immediately after appointment.<sup>7</sup>

### **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.<sup>8</sup>

### **Vacancies**

Any appointment to fill a vacancy on the Authority must be made for the unexpired term of the member whose death, resignation, or removal created the vacancy. The Governor must fill a vacancy not later than 30 days after receiving the Council's recommendations.<sup>9</sup>

### **Meetings**

The bill requires Authority meetings to be held in accordance with Ohio's Open Meetings Law.<sup>10</sup>

### **Use of DEV staff and experts**

The bill allows the Authority to use DEV 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 DEV.<sup>11</sup>

### **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, 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

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<sup>7</sup> R.C. 4164.05(F), 4164.06, and 4164.07.

<sup>8</sup> R.C. 4164.08.

<sup>9</sup> R.C. 4164.05(E) and 4164.051.

<sup>10</sup> R.C. 4164.13; R.C. 121.22, not in the bill.

<sup>11</sup> R.C. 4164.12.

isotopes and research, and a leader in the research and development of high-level-nuclear-waste reduction and storage technology.<sup>12</sup>

## **Authority powers**

### **Necessary and convenient powers**

The bill grants the Authority all powers, including the following, that are necessary and convenient:

- To adopt bylaws for the management and regulation of its affairs;
- To develop and adopt a strategic plan for carrying the Authority's purposes;
- 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 the Authority's purposes;
- 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 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 USNRC and joint-development agreements with USDOE or an equivalent regulatory agency in the event that the Authority requests any of the following:
  - USNRC to delegate rules for a state-based nuclear research-and-development program;
  - To jointly develop advanced-nuclear-research-reactor technology with USDOE under 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.<sup>13</sup>

### **Advanced-nuclear-reactor-component commercialization**

The bill requires the Authority to work with industrial and academic institutions and 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 analysis and experimentation; reactor safety and plant safety; fuels and materials, fuels-and-

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<sup>12</sup> R.C. 4164.10.

<sup>13</sup> R.C. 4164.11.

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.<sup>14</sup>

### **Nuclear waste and isotope production**

The bill requires the Authority to give priority to projects that reduce nuclear waste and produce isotopes.<sup>15</sup>

### **Essential governmental function**

The bill labels the Authority's exercise of its powers as a performance of an essential governmental function that addresses matters of public necessity for which public moneys may be spent and private property acquired.<sup>16</sup>

### **Annual report**

The bill requires that on or before July 4 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.<sup>17</sup>

## **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 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 ensure Ohioans of

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<sup>14</sup> R.C. 4164.15.

<sup>15</sup> R.C. 4164.16.

<sup>16</sup> R.C. 4164.04.

<sup>17</sup> R.C. 4164.18.



their safety with respect to nuclear-technology research and development and radioactive materials.<sup>18</sup>

### **Rules not superseded**

The bill prohibits rules adopted under continuing law by the Director of the Ohio Department of Health (ODH) for radiation control from conflicting with or superseding the rules adopted by the Authority under the bill. Similarly, the bill states that its provisions are not to be construed as superseding any agreement between ODH and the USNRC (see “**Nuclear agreements**,” below) with respect to regulating activities not within the scope of activities of the Authority.<sup>19</sup>

## **Ohio Nuclear Development Authority Nominating Council**

### **Creation**

The bill also creates the Council.<sup>20</sup>

### **Membership, appointment, and meetings**

#### **Composition**

The bill provides that the Council is composed of the following seven members:

- The President of the Senate, or designee;
- The Speaker of the House, or designee;
- Five members of the Ohio State University’s Nuclear External Advisory Board, each appointed by the Governor.<sup>21</sup>

#### **Term of service**

The bill sets the term of office for each Council member appointed by the Governor at two years, beginning at the date of appointment. However, an appointed member must continue the member’s term beyond the two-year expiration date until either (1) the member’s successor takes office, or (2) 60 days have elapsed; whichever occurs first.

For the President of the Senate, the Speaker of the House, or their respective designees, the term of office on the Council is for the duration of the President’s or Speaker’s tenure.<sup>22</sup>

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<sup>18</sup> R.C. 4164.20.

<sup>19</sup> R.C. 3748.23 and 4164.19.

<sup>20</sup> R.C. 4164.01(B) and 4164.09.

<sup>21</sup> R.C. 4164.096 and 4164.097(A).

<sup>22</sup> R.C. 4164.098 and 4164.099.

## **Initial appointment**

Under the bill, the Governor's initial appointments to the Council must be made no later than 30 days after the bill's effective date.<sup>23</sup>

## **Vacancies**

The bill requires the Governor to fill any vacancy that occurs on the Council not later than 60 days after the vacancy occurs, in the same manner as the original appointment. Any member appointed to fill a vacancy on the Council retains the position for the remainder of the vacant member's original term.<sup>24</sup>

## **Meetings**

The bill provides the following regarding Council meetings:

- The Council must hold its initial meeting not later than 30 days after an agreement with USNRC, USDOE, or the military is reached (see "**Nuclear agreements**," below). At this initial meeting the Council must elect a chairperson and a secretary.
- Subsequent meetings may be called by the chairperson. However, the chairperson must call a special meeting upon receipt of a written request for a meeting signed by two or more Council members.
- Written advance notice of the time and place of each meeting must be sent to each Council member via mail or electronic mail.
- Four Council members, or their alternates, constitute a quorum. The Council cannot vote on a measure or take any action unless a quorum is present.
- The Council must keep a record of its proceedings.
- The Council may adopt bylaws governing its proceedings.<sup>25</sup>

## **Members uncompensated**

Under the bill, Council members must serve without compensation.<sup>26</sup>

## **Council roles**

### **Tasks**

The bill requires the Council to review, evaluate, and make recommendations to the Governor for potential appointees to serve as members of the Authority. The Council must provide the Governor with a list of individuals who are, in the judgement of the Council, the

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<sup>23</sup> R.C. 4164.097(B).

<sup>24</sup> R.C. 4164.099.

<sup>25</sup> R.C. 4164.0911 to 4164.0917.

<sup>26</sup> R.C. 4164.0918.

most qualified to be members of the Authority, for the purposes of initial and subsequent appointments, as well as for filling vacancies. All recommendations by the Council must be consistent with the qualifications for membership on the Authority (See “**Qualifications,**” above).<sup>27</sup>

### **List of possible appointees**

The bill directs the Council to supply a list of four possible appointees to the Governor for each initial, subsequent, or vacancy appointment. The Council must provide the list to the Governor at the following times:

- For initial appointments, not later than 30 days after the bill’s effective date;<sup>28</sup>
- For each subsequent appointment, not less than 60, nor more than 85, days before the expiration of the term of an Authority member to be renewed or replaced;
- For each vacancy appointment, not more than 30 days after the death, resignation, or termination of service of an authority member for whom a vacancy exists.<sup>29</sup>

### **Solicit comments**

The bill permits the Council to solicit, accept comments from, and cooperate with any individual in reviewing, evaluating, or recommending potential appointees to serve as a member of the Authority.<sup>30</sup>

### **Recommendations to the General Assembly**

The bill allows the Council to make recommendations to the General Assembly for changes in law that would assist the Council in the performance of its duties.<sup>31</sup>

## **Nuclear agreements**

The bill makes changes to Ohio law governing agreements with the Federal government regarding nuclear licensing and regulatory issues.

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<sup>27</sup> R.C. 4164.091 and 4164.092(A).

<sup>28</sup> Section 3. Under the bill, R.C. 4164.097(B) requires the Governor’s initial five appointments to the Council to be made within 30 days of the bill’s effective date. But, the bill provides that the Council must provide the list of initial appointees not later than 30 days after the bill’s effective date. This could leave very little or no time for the Council to provide the initial list of Authority appointees to the Governor. If the Governor rejects the first list of initial appointees and reconvenes the Council, there likely would also be very little or no time for the Council to provide a second list of appointees as required by R.C. 4164.052.

<sup>29</sup> R.C. 4164.092(C).

<sup>30</sup> R.C. 4164.093.

<sup>31</sup> R.C. 4164.094.

## Governor

The bill provides that the Governor may enter into agreements with USDOE or branches of the U.S. military to permit the state to license and exercise related regulatory authority with respect to byproduct material, source material, the commercial disposal of low-level radioactive waste, and special nuclear material in quantities not sufficient to form a critical mass. Under continuing law, the Governor may make the same agreements with the USNRC.<sup>32</sup>

## Authority

The bill allows the Authority to pursue the same agreements (described under “**Governor**,” above) with the USNRC, USDOE, or branches of the U.S. military, and to do so on behalf of the Governor. Under current law, the 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 for such an agreement.

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## HISTORY

Action	Date
Introduced	09-27-21
Reported, H. Energy and Natural Resources	02-16-22
Passed House (75-18)	03-23-22

ANHB0434PH-134/ec

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<sup>32</sup> R.C. 3748.03(A).