

Minutes - Woodbury County Zoning Commission – March 24, 2025

The Zoning Commission (ZC) meeting convened on the 24th Day of March, 2025 at 5:00 PM in the Board of Supervisors' meeting room in the Basement of the Woodbury County Courthouse, 620 Douglas Street, Sioux City, IA. The meeting was also made available via teleconference.

MEETING AUDIO:

For specific content of this meeting, refer to the recorded video on the Woodbury County Zoning Commission "Committee Page" on the Woodbury County website:

- County Website Link:
 - o https://www.woodburycountyiowa.gov/committees/zoning_commission/
 - YouTube Direct Link:
 - o https://www.youtube.com/watch?v=nEaUL_YC-xo
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ATTENDANCE

ZC Members Present:	Chris Zellmer Zant, Tom Bride, Corey Meister, Jeff Hanson, Steve Corey
County Staff Present:	Dan Priestley, Dawn Norton, Ryan Ericson, Michael Montino
Supervisor(s) Present:	Kent Carper
Public Present:	Elaine Knudson, Doyle Turner, Steve Curtis

1. CALL TO ORDER

- The meeting was called to order at 5:00 PM on February 24, 2025, by the Chair of the Woodbury County Zoning Commission.

2. ROLL CALL

- The Chair confirmed the presence of all Commissioners.
- No absences were noted; all Commissioners were accounted for.

3. PUBLIC COMMENT ON MATTERS NOT ON THE AGENDA (INFORMATION ITEM)

- The Chair opened the floor for public comments on matters not listed on the agenda.
- No individuals present or on the phone offered comments.
- The item concluded with no public input.

4. APPROVAL OF MINUTES FROM PREVIOUS MEETING: 1/27/25 (ACTION ITEM)

- The Chair presented the minutes from the February 24, 2025, meeting for approval.
- A motion to approve the minutes was made by Corey and seconded by Hanson.
- Vote: Unanimous approval ("Aye" from all present Commissioners), 5-0.

5. ITEM(S) OF BUSINESS

» PUBLIC HEARING (ACTION ITEM): CONSIDERATION OF NUCLEAR ENERGY FACILITIES AND NUCLEAR WASTE STORAGE IN THE WOODBURY COUNTY ZONING ORDINANCE

- Chair Zellmer Zant opened the public hearing to discuss the potential inclusion of nuclear energy facilities and nuclear waste storage in the Woodbury County Zoning Ordinance. She outlined the procedure: staff presentation, applicant remarks, public comments, and commission deliberation, with a reminder to limit comments to three minutes and maintain respectfulness.
- **Staff Presentation – Dan Priestley, Zoning Coordinator:**
 Priestley introduced the hearing as a continuation of prior discussions on adding nuclear energy facilities and nuclear waste storage to the zoning ordinance. He highlighted the intent to gather public input on permitting such uses, including nuclear energy generation, modular systems, and related technologies. He referenced the existing ordinance framework under Section 3.03.4 (Land Use Summary Table) and Section 2.02.9 (conditional use criteria), noting that electrical energy generation (excluding wind) and hazardous waste/chemical storage are currently interpreted as conditional uses in general industrial districts. However, he emphasized the lack of specific definitions for nuclear-related uses, creating ambiguity.
 - Priestley explained that the 2005 Comprehensive Plan and 2008 Zoning Ordinance broadly addressed energy generation but did not explicitly mention nuclear uses. He noted that any application for a nuclear facility would require review by the Nuclear Regulatory Commission (NRC), as Iowa is an “agreement state” under NRC oversight. He consulted the Iowa DNR and Department of Public Health, learning that low-grade nuclear materials (e.g., from hospitals) are state-regulated, while high-intensity nuclear facilities fall under NRC jurisdiction.
 - Priestley referenced County Attorney Joshua Widman’s advice to define nuclear terms explicitly to avoid legal challenges, rather than relying on broad interpretations. He proposed amending the ordinance to include definitions and potentially expand the notification zone from 500 feet to 5-10 miles, reflecting emergency response considerations (e.g., plume areas). He noted logistical challenges, such as notifying stakeholders within a larger radius, which could require professional assistance and increased costs passed onto applicants per the county’s fee schedule.
- **Guest Speaker – Steven Curtis, Health Physicist:**
 Steven Curtis, appearing via video, introduced himself as a health physicist with 14 years at the Department of Energy’s Nevada Site Office, where he worked on nuclear testing and emergency management. He provided a detailed overview of nuclear energy and waste:
 - **Nuclear Fuel Cycle:** Curtis explained that U.S. light water reactors (e.g., Duane Arnold in Iowa) use uranium-235 enriched to 3-4%. After three years, the fuel is “spent,” with 1% uranium-235 remaining, 95% unchanged uranium-238, 3% fission products (highly radioactive), and transuranics (e.g., plutonium). Spent fuel is initially stored in 30-foot-deep water pools for 3-5 years to cool, then moved to dry cask storage (reinforced concrete containers) onsite due to the lack of a national repository.
 - **Value of Spent Fuel:** He argued that 97% of spent fuel (uranium-235 and transuranics) could be reused in fast reactors, yielding 30 times more energy than its initial burn—enough to power the U.S. for 270 years at current demand. Curtis advocated for Iowa to accept spent fuel, positioning it as a clean energy leader, given other states’ reluctance (e.g., Nevada, Texas, New Mexico).
 - **Storage Safety:** Curtis emphasized that dry casks are robust, shielding radiation effectively, and reducing long-term risks compared to a million-year repository. Fission products decay to natural uranium levels within 300 years, with valuable rare earths (e.g., rhodium) extractable after 50-60 years.

Motion by Meister to close public hearing. Seconded by Hanson. Carried 5-0.

Questions from Commissioners and Liaison:

1. **Steve Corey:** “Are there reactors today that can use this spent fuel? Why hasn’t it been done?”
 - **Curtis:** Fast reactors exist (e.g., a 30-year prototype in Idaho), but political and licensing delays have stalled commercial use. Light water reactors dominated due to Admiral Rickover’s submarine designs and abundant uranium. Eight to nine companies are developing fast reactor technology,

- but NRC licensing is slow. He suggested Iowa could leverage the \$50 billion Spent Fuel Fund for private industry development. Russia operates fast reactors, but not with spent fuel commercially.
2. **Tom Bride:** “Does using spent fuel in fast reactors increase nuclear waste, or reduce it?”
 - **Curtis:** Fast reactors transmute uranium-238 into plutonium-239, which is then fissioned, producing more fuel as it burns. This reduces long-term waste to fission products (300-year decay) rather than transuranics needing million-year storage. Modern fast reactors are safer and simpler than light water reactors.
 3. **Kent Carper (Supervisor Liaison):** “Given Iowa’s farmland and rivers, what’s the best way to store this?”
 - **Curtis:** Spent fuel is safely stored in concrete casks, shielding radiation and requiring no water after initial cooling. Fission products remain, decaying to manageable levels within 100-300 years, with potential for rare earth extraction. Volume isn’t reduced significantly, but storage time is.
 4. **Tom Bride:** “Would using spent fuel reduce the amount and storage time of nuclear material?”
 - **Curtis:** It reduces storage time from 10,000+ years to 300 years, not volume (90,000 tons fits in a Walmart Supercenter). The federal government could fund interim facilities (32-64 acres), but states resist despite safety records (e.g., Navy shipments).
 5. **Chris Zellmer Zant (follow-up):** “Why are Texas and New Mexico against interim storage?”
 - **Curtis:** Emotional and political fears, fueled by Nevada’s 30-year fight against Yucca Mountain, deter acceptance. Texas prioritizes fossil fuels, and New Mexico’s liberal base opposes nuclear emotionally. No accidents have occurred in transport, yet fear persists. Iowa could gain an advantage by embracing it.

Commission Deliberation:

- **Priestley:** Reiterated that the current ordinance allows nuclear applications as conditional uses, but lacks specificity, risking legal challenges. He suggested defining terms and expanding notification zones, potentially to 10 miles, and consulting Assistant County Attorney Widman further. Public input has been limited, possibly due to nuclear’s industrial focus versus solar/wind’s rural impact.
- **Chris Zellmer Zant:** Noted the 2008 ordinance was intentionally vague for flexibility, avoiding promotion or prohibition. Limited public turnout suggests no urgency, unlike solar debates.
- **Tom Bride:** Agreed on vagueness but highlighted the 500-foot notification as inadequate for nuclear, proposing a broader zone (e.g., 10 miles).
- **Steve Corey:** Supported moving forward with defined regulations, surprised by positive public feedback.
- **Corey Meister:** Emphasized the notification zone’s importance for emergency response, suggesting 10 miles as reasonable.
- **Priestley:** Proposed retaining flexibility in the Land Use Table but adding nuclear definitions and a 10-mile notification zone in the ordinance’s back section, pending Widman’s review.

Public Comment: No public attendees spoke. A written comment from Janet and Randy Krueger was submitted, opposing nuclear activities unless explicitly prohibited, requiring zoning changes with public input.

- **Motion:** Commissioner Steve Corey moved to receive the Krueger comment into the record.
- **Second:** Commissioner Jeff Hanson seconded.
- **Vote:** Unanimous approval (Aye: Zellmer Zant, Bride, Meister, Hanson, Corey).

Motion and Action:

- **Motion:** Commissioner Corey moved to pend the matter for County Attorney review, returning it to the commission for a future public hearing when available (preferably May 2025 due to planting season).
- **Second:** Commissioner Hanson seconded.
- **Vote:** Unanimous approval (Aye: Zellmer Zant, Bride, Meister, Hanson, Corey).
- **Action:** The commission deferred a recommendation, tasking Priestley to refine language with Widman.

» DIMENSIONAL SIZE FOR SINGLE-FAMILY DWELLINGS FOLLOW-UP (ACTION ITEM)

Staff Presentation – Dan Priestley, Zoning Coordinator:

Priestley briefed the commission on a follow-up to the January 27, 2025, hearing regarding Section 4.11 (Single-Family Detached Dwellings). The discussion focused on manufactured/mobile home size thresholds (23 feet wide). County Attorney Widman confirmed that certified additions (per HUD and Iowa Code) could expand structures if compliant with federal safety standards (e.g., shared weight load). Non-certified additions are not permitted. Only two property owners attended prior hearings, suggesting low public interest. Priestley recommended no ordinance change, reporting this to the supervisors with Widman's findings.

Commission Deliberation:

- **Jeff Hanson:** Raised the addition issue previously, satisfied with Widman's clarification.
- **Chris Zellmer Zant:** Agreed to draft a letter to the supervisors with Priestley, maintaining the existing ordinance.

Motion and Action:

- **Motion:** Commissioner Bride moved to recommend no changes to the ordinance, maintaining existing standards, and report this to the supervisors.
- **Second:** Commissioner Meister seconded.
- **Vote:** Unanimous approval (Aye: Zellmer Zant, Bride, Meister, Hanson, Corey).
- **Action:** The commission recommended no changes, with Priestley to draft a letter for Zellmer Zant's review.

6. PUBLIC COMMENT ON MATTERS NOT ON THE AGENDA (INFORMATION ITEM)

- The Chair opened the floor for additional public comments.
- No individuals offered comments.
- The item concluded with no public input.

7. STAFF UPDATE (INFORMATION ITEM)

- Priestley announced an Iowa State zoning training on April 22, 2025, at the Iowa Stat extension facility in Morningisde, including a meal. Commissioners were encouraged to RSVP.

8. COMMISSIONER COMMENT OR INQUIRY (INFORMATION ITEM)

- No commissioners offered comments or inquiries.

9. ADJOURN

- A motion to adjourn was made by Meister and seconded by Corey.
- Vote: Unanimous approval. Meeting adjourned at 6:36 PM.

Appendix – Comments Received into the record.

Daniel Priestley

From: Janet Krueger <kruegerjs@icloud.com>
Sent: Monday, March 24, 2025 12:47 PM
To: Daniel Priestley
Subject: Comments for public hearing on nuclear zoning

CAUTION: This email originated from OUTSIDE of the organization. Please verify the sender and use caution if the message contains any attachments, links, or requests for information as this person may NOT be who they claim. If you are asked for your username and password, please call WCICC and DO NOT ENTER any data.

Re: Public hearing on zoning for nuclear-related items - comments

Mr. Priestley,

We believe ALL levels of zoning in Woodbury County should EXPRESSLY PROHIBIT any nuclear-related activities (including nuclear waste disposal). That way, if any entity wants to perform nuclear-related activities in the county, they would need to propose zoning changes that allow the public to weigh in on a particular usage. We do NOT want nuclear-related activities to "slip in" before they are expressly prohibited in our zoning ordinances.

Sincerely,

Janet Krueger
Randy Krueger
4862 Bradford Lane
Sioux City, IA 51106

Sent from my iPhone