

The People of EBR-1

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Introduction

In 1945, after World War II, the Atomic Energy Commission (AEC) focused on developing peaceful uses for nuclear materials. By 1946, Dr. Walter Zinn had designed the Experimental Breeder Reactor-1 (EBR-1). The AEC approved Zinn's design in 1947, construction began in November 1949, and completed in the winter of 1951. EBR-1 became the nation's first nuclear power plant, showcasing the potential of nuclear energy. Test sequences at EBR-1 concluded in 1963, and by 1966, the site was designated as a National Historical Landmark.¹ While there is abundant knowledge about the technical design and establishment of EBR-1, there is a notable lack of research on the employees and the sociocultural environment they created. This project aims to highlight the individuals of EBR-1 and their working environment through archival research and curated findings.



Some of the original EBR-1 crew members in front of the signed wall at the site, COM-2022-001, 5-1, Idaho National Laboratory Archives and Special Collections, Idaho.

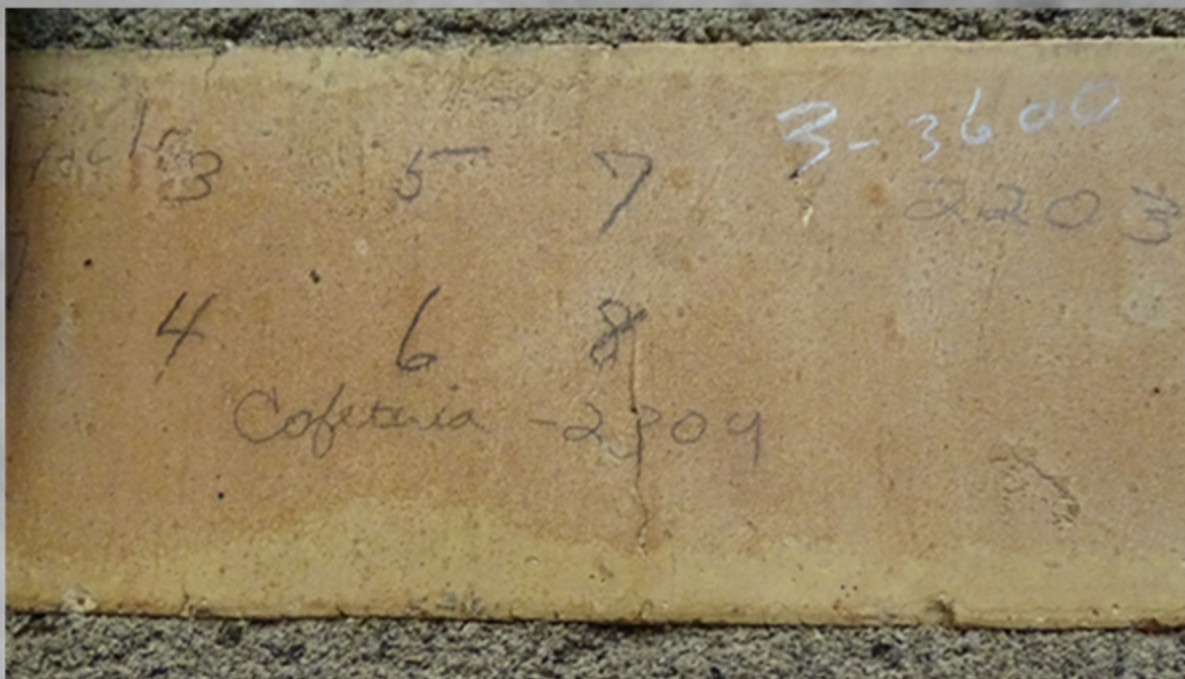
Versatility and Camaraderie

A key aspect of the social environment at EBR-1 was the workers' versatile capabilities and responsibilities. Zinn sought individuals with technical and practical skills. Reflecting on EBR-1, Chick Doe said, "Instead of specializing in only one type of job, the staff and technical personnel did any and all types of work..."² Versatility is evident in the EBR-1 workers clothing; denim coveralls and safety shoes.³

On his first day at EBR-1 in 1955, Richard Smith walked across the site to introduce himself to th director. Approaching a man moving boxes, he inquired where to find the site director. The man Smith approached was Harold Lichtenberger, the director.⁴ Doe recalls the versatility of work, stating, "...any one person's hands were just as likely to be soiled as any other's."⁵ The egalitarian nature of EBR-1 contributed to a sense of camaraderie among staff. Many of the men working at the site shared WWII veteran status, and this likely contributed to the tight knit nature.

Furthermore, majority of the men comprising the EBR-1 crew relocated from the Chicago area, strengthening their rapport. The EBR-1 crew, and their families developed a community that extended beyond the facility through shared church communities, the wives were influential in creating the Idaho Falls Symphony, and their children often played together.⁶

Graffiti-3, EBR-1_Graffiti, 20250703, Reference Collection, Idaho National Laboratory Archives & Special Collections, Idaho.



Graffiti-10, EBR-1_Graffiti, 20250703, Reference Collection, Idaho National Laboratory Archives & Special Collections, Idaho.

An Electrifying Event

On December 21st, 1951, the EBR-1 team made history by generating electricity from nuclear energy for the first time.⁷ In the days leading up, Zinn and his crew worked through the weekend, often working 14-18 hour days.⁸ The crew sought to generate power before Christmas.

Although the day the EBR-1 generated power marked a turning point in nuclear energy, but for the 16 workers present "It was just another regular day for all of us...When something like that occurs, sometimes it's difficult to attach much significance to it."⁹ While most of the EBR-1 crew didn't attach significance to the event, Walter Zinn grasped the importance. Reflecting on the moment, Charles Gibson stated, "I don't think any of us really realized just what had happened that night, except Zinn. He had a sense of history about the moment."¹⁰

Zinn's acknowledgment of the importance led him to observe the moment. At the last minute, Zinn called for lightbulbs to be strung from the generator and asked physicist Mike Novick to photograph the lights.¹¹ Zinn directed engineer Reid Cameron to write out a commemorative statement on the wall of the facility and had members of the staff who was present sign the wall.¹²

Citations

1. EBR-1 Chronology, COM-2022-001, 5-1, Idaho National Laboratory Archives & Special Collections, Idaho.
2. Idaho National Engineering Laboratory News, Name of The Game 'Versatility', Special Edition: EBR-1 Review, 1974, COM-2020-002, 3-8, Idaho National Laboratory Archives & Special Collections, Idaho.
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6. Anna Coy, Family History Interview, 20250716.
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8. The Idaho National Engineering Laboratory News, EBR-1 early-day operators remember power plant's beginnings and first lab director, 19800819, COM-2020-002, 4-1, Idaho National Laboratory Archives & Special Collections, Idaho.
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12. "Nuclear Pioneers: EBR-1", Idaho National Laboratory, April 13, 2011, YouTube Video, 26:42, <https://youtu.be/kncekYqvqWw>.
13. Anna Coy, Family History Interview, 20250716.
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16. Graffiti-3, EBR-1_Graffiti, 20250703, Graffiti, Idaho National Laboratory Archives & Special Collections, Idaho.
17. Graffiti-3, EBR-1_Graffiti, 20250703, Graffiti, Idaho National Laboratory Archives & Special Collections, Idaho.

Passing the Time

Although the men at EBR-1 were committed to their work, they indulged in hobbies and fun while at the site. Many of the men were rockhounds and shared an interest in amateur geology. Anna Coy, granddaughter of EBR-1 electrical engineer Bob Wallin, recalls that her grandfather tumbled rocks he found to make his own bolo ties.¹³ Long workdays in the isolated desert could cause mental strife, but the men at EBR-1 staved off boredom through a sense of community and finding ways to keep themselves entertained. The men of EBR-1 shared a fondness for playing sports. At the first Argonne picnic the EBR-1 crew played a game of baseball, scientists vs. technicians.¹⁴ Dr. Walter Zinn acted as the captain and pitcher of the scientists' team.¹⁵ The men also played volleyball outside of the EBR-1 building.

Graffiti

On the walls of the facility: drawings, calculations, and random scribbles mark the walls. This graffiti provides a glimpse into the daily work environment of EBR-1. For example, written on the wall, next to one of the old phones is the extension number of the cafeteria.¹³ There are also several calculations and technical sketches on the walls. In addition to the drawings there are numerous pieces of graffiti throughout the facility drawn by "Wade", who was likely a member of the EBR-1 construction crew based on the dates of his graffiti.¹⁴

Conclusion

The breakthroughs at EBR-1 were only made possible through the dedication and ingenuity of the scientists and technicians who worked there. The men at the site found ways to keep themselves entertained and have fun at the isolated desert site while maintaining the required technical focus. While over six decades have passed since the historic events, the legacy of the crew who made such great bounds in nuclear science lives on through the humanity that is infused in the walls of EBR-1.

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