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SENATE RESOLUTION

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WHEREAS, It is appropriate to remember the many sacrifices and contributions to the cause of freedom made by the outstanding men and women who have served in the United States Armed Forces; and

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WHEREAS, From 1946 to 1962, the United States conducted approximately 200 atmospheric nuclear tests, more than all other nuclear states combined at that time; and

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WHEREAS, Approximately 400,000 servicemen in the U.S. Army, Navy, and Marines were present during these atmospheric tests, whether as witnesses to the tests themselves or as post-test cleanup crews; and

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WHEREAS, The Manhattan Project was the code name for the American-led effort to develop a functional atomic weapon during World War II; and

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WHEREAS, Two types of atomic bombs were developed concurrently during the war, a relatively simple gun-type fission weapon and a more complex implosion-type nuclear weapon; the Thin Man gun-type design proved impractical to use with plutonium, and therefore, a simpler gun-type called Little Boy was developed that used uranium-235, an isotope

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1 that makes up only 0.7 percent of natural uranium; since it was  
2 chemically identical to the most common isotope, uranium-238,  
3 and had almost the same mass, separating the two proved  
4 difficult; three methods were employed for uranium enrichment,  
5 electromagnetic, gaseous, and thermal; most of this work was  
6 performed at the Clinton Engineer Works at Oak Ridge,  
7 Tennessee; and

8 WHEREAS, In parallel with the work on uranium was an  
9 effort to produce plutonium, which was discovered by  
10 researchers at the University of California, Berkeley, in  
11 1940; after the feasibility of the world's first artificial  
12 nuclear reactor, the Chicago Pile-1, was demonstrated in 1942  
13 at the Metallurgical Laboratory in the University of Chicago,  
14 the project designed the X-10 Graphite Reactor at Oak Ridge  
15 and the production reactors at the Hanford Site in Washington  
16 state, in which uranium was irradiated and transmuted into  
17 plutonium and the plutonium was then chemically separated from  
18 the uranium, using the bismuth phosphate process; the Fat Man  
19 plutonium implosion-type weapon was developed in a concerted  
20 design and development effort by the Los Alamos Laboratory;  
21 and

22 WHEREAS, Illinois played an important part in the  
23 Manhattan Project; and

1           WHEREAS, Argonne National Laboratory is a science and  
2 engineering research national laboratory operated by the  
3 University of Chicago for the United States Department of  
4 Energy; the facility is located in Lemont, outside of Chicago,  
5 and is the largest national laboratory by size and scope in the  
6 Midwest; and

7           WHEREAS, On July 1, 1946, the laboratory was formally  
8 chartered as Argonne National Laboratory to conduct  
9 cooperative research in nucleonics; at the request of the U.S.  
10 Atomic Energy Commission, it began developing nuclear reactors  
11 for the nation's peaceful nuclear energy program; in the late  
12 1940s and early 1950s, the laboratory moved to a larger  
13 location in Lemont and established a remote location in Idaho  
14 called "Argonne-West" to conduct further nuclear research; and

15           WHEREAS, Code-named the "Metallurgical Lab", the team  
16 constructed Chicago Pile-1, which achieved criticality on  
17 December 2, 1942 underneath the stands at the University of  
18 Chicago's Stagg Field; because the experiments were deemed too  
19 dangerous to conduct in a major city, the operations were  
20 moved to a spot in nearby Palos Hills and renamed "Argonne"  
21 after the surrounding forest; and

22           WHEREAS, Red Gate Woods is a forest preserve within the  
23 Palos Division of the Forest Preserve District of Cook County

1 and is located near where the Cal-Sag Channel meets the  
2 Chicago Sanitary and Ship Canal; the original site of Argonne  
3 National Laboratory and the Site A/Plot M Disposal Site is in  
4 the woods, which contains the buried remains of Chicago  
5 Pile-1, the world's first artificial nuclear reactor; and

6 WHEREAS, It is important to remember and honor the  
7 achievements and sacrifices of the men and women of this  
8 nation who during their time of service experienced exposure  
9 to nuclear radiation while on active duty and served so  
10 valiantly in the cause of freedom; therefore, be it

11 RESOLVED, BY THE SENATE OF THE ONE HUNDRED THIRD GENERAL  
12 ASSEMBLY OF THE STATE OF ILLINOIS, that we declare July 16,  
13 2023 as Atomic Veterans Day in the State of Illinois; and be it  
14 further

15 RESOLVED, That a suitable copy of this resolution be  
16 presented to the Atomic Heritage Foundation as a symbol of our  
17 esteem and respect.