

**CHICAGO METRO HISTORY FAIR
2014 SUMMARY STATEMENT FORM**
Please TYPE on sheet or use word processing

ALL PROJECTS: Attach an annotated bibliography. Please divide primary and secondary sources from each other.
Two copies of SSF & Annotated Bibliography are required for competitions.

Title The Living Dead: The Radium Dial Painters of Ottawa, IL and their Impact on the Understanding of Radiation Exposure

Student name(s) Mary Kate Baughman

Project Category:

Group Individual **and** Exhibit Performance Documentary Website

Check if applicable (and respond to the 3rd question):

This project uses the 2014 National History Day theme, "Rights and Responsibilities"

1. THESIS STATEMENT

Present the project's argument or interpretation in two sentences. If you are using the NHD theme, you might want to make it evident in your thesis statement.

Through their experience, the Radium Dial painters of Ottawa, IL helped redefine employee rights and responsibilities on workplace safety. They later became the most valuable group of people to provide data on the impact of radiation exposure.

2. SUMMARY OF PROJECT

Briefly explain your project and its conclusion. Include: How and why did change happen and what was the impact? Why is it historically significant? What historical meaning or importance can we learn from your findings?

In the 1920s, a group of women in Ottawa, Illinois painted clock and watch dials with radioluminescent paint. Before they painted a number, they would put the tip of the paint brush in their mouth to make the paint brush pointy and easier to use. While doing this, they ingested a small amount of radium which they did not know was deadly. The tragedy of the sickness and death of these dial painters made the world aware of the dangers of radiation exposure. When they sued their employer, the Radium Dial Company, the dial painters were able to change the 1911 Occupational Disease Law in Illinois. By changing this law, it made it easier for employees to sue their employers for illnesses caused by unsafe workplaces. Many years later, scientists tested many dial painters as well as the bones of dead painters and were able to determine safe levels of radiation exposure for humans.

3. Required for projects using the National History Day theme only.

Explain how this project integrates the NHD theme "Rights and Responsibilities" into its argument.

The dial painters helped redefine employee rights and responsibilities on workplace safety. There was an Occupational Safety Law passed in Illinois in 1911 that gave employees the right to a safe workplace. People could sue under this law but the lawsuit would have to be brought within six months of getting sick. The radium dial painters could not sue because their sickness took at least 3 years to show up. The dial painters law suit showed that the law was unfair and a new Workmans Occupation Disease Act went into effect on October 1, 1936.

The radium dial painters were never told how much radiation they were exposed to. Now in Illinois, the law states that every worker has the right to know the level of radiation they are being exposed to. Both employers and employees have a responsibility to make sure that workers are safe.

4. PROCESS

- A. What historical question did you start off with—and how did it change once you began doing your research?

I started with the question "How did the radium dial painters affect workplace safety?" In my research, I discovered that they did more than impact workplace safety. They were important in two areas: workers rights and the effects of radiation exposure. Through their lawsuit, they publicized the dangers of radium. More importantly, they changed the Occupational Safety law of 1911 that was in effect at that time. This law stated that lawsuits had to be filed within six months, but radiation poisoning takes more than three years to show up. I also learned that the radium dial painters helped determine a safe level of radiatioin exposure and that after years of research at Argonne National Laboratories scientists were able to dertermine that there is a safe level of radiation exposure.

- B. What kinds of sources did you use as evidence to develop your argument (for example, letters, photographs, government documents, interviews, etc.)?

I used many different sources to prove my thesis. I had an interview with a scientist who is in charge of the dial painters bone samples. I had a letter wrote to one of the painters husbands from the lawyer of the case. I had many magazine articles written about the girls lives and about how much they suffered. I had excellent books that talked about the girls sickness, lawsuit, and their historical impact. I had interviews with someone who is an expert and knows a lot about the dial painters. I had an interview with the son of the girls attorney. There were many different websites that supported all the parts of the thesis.

C. Select one piece of evidence that you used and explain how it influenced your argument.

The most influential piece of evidence that influenced my argument is my interview with Dr. Sergei Tolmachev. He is the Director of the United States Transuranium and Uranium Registries at Washington State University College of Pharmacy. He told me that the dial painters donated bone ash and samples after their death and now scientist can study the effects of radiation. Because medical research has become more advanced, scientists and doctors can study the effects of radiation on DNA and other areas not available to scientists in the past.

D. List libraries (other than school), museums, and other institutions that you visited to do your research.

On Site:

- LaSalle County Historical Society and Museum, Utica, IL
- The Catherine Wolfe Donohue Special Collection at McCormick Library of Special Collections, Northwestern University Library, Chicago, IL
- The Radium Girls Statue in Ottawa, IL
- Schaumburg Public Library, Schaumburg, IL
- Palatine Public Library, Palatine IL

Virtual:

- Washington State University College of Pharmacy