

Works Cited

**PRIMARY**

"'Living Death' Victims." *The Times-News* [Hendersonville], 14 Feb. 1938, p. 1.

*Chroniclingamerican.loc.gov*,

[chroniclingamerica.loc.gov/lccn/sn86063811/1938-02-14/ed-1/seq-1/?locl=blogser](https://chroniclingamerica.loc.gov/lccn/sn86063811/1938-02-14/ed-1/seq-1/?locl=blogser).

Accessed 1 Feb. 2025.

In Hendersonville North Carolina on February 14, 1938, The Times-News published an article named "'Living Death' Victims" that heavily leans towards empathizing with the Radium Girls. The article paints the Radium Girls as innocent victims who are slowly losing their lives to radium poisoning and therefore, at the least, deserve compensation for their injuries. This source reinforced to us how a majority of the public began paying attention to the Radium Girls cases and supported their want for compensation and acknowledgement regarding their diseases.

Berry, Raymond. *National Consumers League Records. Raymond Berry Paper Reels*, vol. 1.

This source is one of the three microfilm reels that contains all documents utilized by Raymond Berry, lawyer of the Radium Girls, during his trial where he represented the dial-painters; it is a part of the National Consumers' League of Records and can be accessed through the Library of Congress. This reel focuses on correspondence between key players in the Radium Girls case: This includes private and public conversations between doctors, dentists, USRC officials and the dial-painters themselves. Through this source, we were able to see how the USRC tried to thwart the dial-painters' success in their trial by encouraging the

girls to go to corrupt doctors as well as submitting flawed reports to government offices.

---. "Raymond Berry MicroFilm Reel 1." *Library of Congress Manuscript Division*, [www.loc.gov/research-centers/manuscript/about-this-research-center/](http://www.loc.gov/research-centers/manuscript/about-this-research-center/). Accessed 1 Feb. 2025.

Orange New Jersey health officer Lenore Young testified in court for the Radium Girls, admitting that the United States Department of Labor took no steps in investigating the suspicious deaths of three USRC dial-painters. This testimony is located in Radium Girls lawyer Raymond Berry's Microfilm Reel 1 that is a part of the National Consumers League Records and can be accessed through the Library of Congress Manuscript Division. From this source we learned about the unwillingness for the USDL to combat industry safety violations even when employees' lives are at risk.

---. "Raymond Berry Micro Reel 1." *Library of Congress Manuscript Division*, [www.loc.gov/research-centers/manuscript/about-this-research-center/](http://www.loc.gov/research-centers/manuscript/about-this-research-center/). Accessed 1 Feb. 2025.

The Library of Congress Manuscript Division encompasses the National Consumer League Records which has the Microfilm reels of Raymond Berry's work, the lawyer of the Radium Girls in their trial against the USRC. We used Dr. Harrison Martland's testimony on page 27 of reel 1 as Dr. Martland had examined many USRC dial-painters and concluded in his testimony that these women suffered from radium poisoning that was a direct result of their occupation. We

used this source to show that many doctors agreed that the USRC provided its dial-painters with unhygienic and dangerous working conditions.

Berry, Raymond H. *National Consumers League Records. Raymond Berry Papers*, vol. 3.

This source is third of the three Microfilm reels that contains every document used by Raymond Berry, lawyer of the Radium Girls, during his trial with the dial-painters; it is a part of the National Consumers' League of Records and can be accessed through the Library of Congress. This reel contains sources specific to chancery and supreme court cases of the individual radium girls, including sources ranging from testimonies to blood test results to private letters between USRC officials and dial-painters. From this source, we were able to see how medical officials and USRC employers manipulated their opinion when it came to their true opinions and what they publicized to the dial-painters as well as the general population.

Berry, Raymond Hirst. *National Consumers League Records. Raymond Berry Papers*, vol. 2.

This source is the second of the three microfilm reels that contains all documents collected by Raymond Berry, lawyer of the Radium Girls, during his time representing the dial-painters; it is a document of the National Consumers' League of Records and can be accessed via a request through the Library of Congress. This reel contains sources pertaining to medical results of the dial-painters, testimonies, and medical journals at the time of the case discussing the topic of radium poisoning. This source was incredibly helpful in showing how there was plenty of knowledge on harmful effects of radium such as necrosis and anemia so the USRC was liable to make its dial-painter aware of such dangers.

The Courier-News. "Woman, Dying By Degrees, Tells Of Symptoms of Radium Poisoning, Has Undergone Nineteen Operations." *The Courier-News* [Bridgewater, New Jersey], 16 May 1928, p. 6.

Former USRC dial-painter employee Grace Fryer spoke about the debilitating effects of radium to The Courier-News newspaper on May 16, 1928 under the headline "Woman, Dying By Degrees, Tells Of Symptoms of Radium Poisoning, Has Undergone Nineteen Operations". This story was made during the Radium Girls trial and was meant to garner sympathy towards the Radium Girls who were fighting to receive compensation from their former employers, the USRC. This source showed us that dozens of women had their lives ruined due to the irresponsible inactions of the USRC in regards to safety against radium poisoning.

Curie, Marie. *Pierre Curie*. Translated by Charlotte Kellogg and Vernon Kellogg, The Macmillan Company, 1923.

Marie Curie, renowned Nobel Prize winner for her work with radium, wrote a biography on her husband's life, Pierre Curie. This source gives insight into many scientific aspects of Pierre's life including their extensive research on radium, some of which happened around the time of the Radium Girls. This source showed us primary examples of scientific scholars agreeing on the dangers of radium exposure years before the opening of the Orange USRC plant, proving how the USRC exposed their workers to radium through luminous paint while knowing of the harmful properties of radium.

Curie, Pierre. "Radioactive Substances, Especially Radium." 6 June 1905. *Nobelprize.org*, 6 June 1905, [www.nobelprize.org/uploads/2018/06/pierre-curie-lecture.pdf](http://www.nobelprize.org/uploads/2018/06/pierre-curie-lecture.pdf). Accessed 6 Mar. 2025. Lecture.

This source is a written transcript of renowned Chemist Pierre Curie's Nobel lecture on June 6, 1905, titled "Radioactive Substances, Especially Radium". The lectures explain the meticulous research and experimentation process followed by Marie and Pierre Curie that led them to not only discover a new element labeled as radium, but also its properties and how they have many implementations in modern science advancements. This source helped us get a scientific understanding as well as its properties.

---. "Radium and the New Concepts in Chemistry." 11 Dec. 1911. *The Nobel Prize*, [www.nobelprize.org/prizes/chemistry/1911/marie-curie/lecture/](http://www.nobelprize.org/prizes/chemistry/1911/marie-curie/lecture/). Accessed 3 Dec. 2024. Lecture.

This article, posted to the official Nobel Prize website, is a complete transcript of Marie Curie's speech from December 11, 1911 that she gave after receiving the 1911 Nobel Prize in Chemistry. In this speech, Marie Curie describes her and her husband's journey in discovering the property radium, along with gratitude she has for receiving this award. This speech was very beneficial to our research because it showed us what scholars truly knew about radium in its early years as well as the priority people placed on radium exposure.

Drinker, Cecil K., et al. "Necrosis of the Jaw in Workers Employed in Applying a Luminous Paint Containing Radium." *The Journal of Industrial Hygiene*, vol. 7, no. 8, Aug. 1925, pp. 371-81,

[archive.org/details/sim\\_journal-of-industrial-hygiene-and-toxicology\\_1925-08\\_7\\_8.](https://www.ncbi.nlm.nih.gov/pmc/articles/PMC1250000/)

Accessed 21 Jan. 2025.

In August 1925, medical doctors Cecil Drinker, Katherine Drinker, and William Castle published their report, "Necrosis of the Jaw in Workers Employed in Applying a Luminous Paint Containing Radium" that analyzed their findings on the radium levels at the USRC plant in New Jersey. Although the source was funded by the USRC, the report produced unbiased evidence that the dial-painters of the Orange, New Jersey plant had been exposed to dangerous levels of radiation through blood tests and dental films. We accessed this report through the Journal of Industrial Hygiene and Toxicology archives and used it to show how not only did the USRC subject their employees to dangerous conditions, but also rejected the evidence confirming that.

Edmonds, Dean S. Interview. 9 May 1926.

This is Dean Edmonds recollection of a conference he attended in 1926 with Radium Girl Dentist Joseph Knef and USRC officials in which Edmonds remembers Joseph Knef saying that he would alter his medical statements and testimonies to make the USRC look innocent in exchange for 10,000 dollar from the company as compensation for treating many of its sick dial-painters. This document can be found in Reel 3 of Radium Girl Lawyer Raymond Berry's Microfilms, which can be accessed through the Library of Congress Manuscript Division. This recorded conference showed us the medical corruption facing the Radium Girls and the ability for doctors to easily manipulate their medical statements to benefit industry agenda. This source showed how many doctors

were motivated by money and not morals during the trial of the Radium Girls, leading to corrupt doctors such as Joseph Knep hindering the Radium Girls' ability to win their lawsuit against the USRC.

"5 Women Dying of Radium Poisoning." *Evening Star* [Washington D.C], 13 May 1928, p. 14.

*Chroniclingamerica.loc.gov*,

[chroniclingamerica.loc.gov/lccn/sn83045462/1928-05-13/ed-1/seq-58/?locl=blogser](https://chroniclingamerica.loc.gov/lccn/sn83045462/1928-05-13/ed-1/seq-58/?locl=blogser).

Accessed 1 Feb. 2025.

On May 13, 1928 the Evening Star published a story in Washington D.C titled "5 Women Dying of Radium Poisoning" that shed light on the dying Radium Girls who were currently fighting to get compensation for their illnesses, clearly sympathizing with the situation of the Radium Girls and demonizing the USRC. The article shows compassion for the Radium Girls and their situation. We used this source to show how people supported the Radium Girls across the nation.

Flinn, Frederick. Letter to Katherine Schaub. 7 Dec. 1925. *Library of Congress Manuscript*

*Division*, [www.loc.gov/research-centers/manuscript/about-this-research-center/](http://www.loc.gov/research-centers/manuscript/about-this-research-center/).

Accessed 20 Jan. 2025.

This is a letter from Frederick Flinn to Radium Girl Katherine Schaub encouraging Schaub to allow Flinn to give her a medical examination. This letter is a part of Radium Girls Lawyer Raymond Berry's Microfilm Reel 1 which is a part of the National Consumers' League of Records and can be accessed through the Library of Congress Manuscript Division. We used this letter to show Flinn's heavy involvement in the Radium Girls case that was motivated by his need to

uphold the industry agendas of the USRC even if it meant allowing sick innocent women to die without receiving any justice.

---. Letter to Cecil Drinker. *Library of Congress Manuscript Division*,

[www.loc.gov/research-centers/manuscript/about-this-research-center/](http://www.loc.gov/research-centers/manuscript/about-this-research-center/). Accessed 20 Jan. 2025.

This is a letter between toxicologist Frederick Flinn and scientist Cecil Drinker found in the Raymond Berry Reels 1 that is housed in the Library of Congress Manuscript Division. Flinn writes to Drinker, a scientist who conducted studies on the USRC Orange plant and found dangerous levels of radium, that Flinn suspects that the luminous paint is the cause for the dialpainter's illnesses. We use this source to contrast with the medical opinion Flinn published some time just after.

Flinn, Frederick. "Radioactive Material: An Industrial Hazard?" *The Journal of the American Medical Association*, vol. 87, no. 25, 18 Dec. 1926, pp. 2078-80, [archive.org/details/sim\\_jama\\_1926-12-18\\_87\\_25\\_0/mode/2up](https://www.archive.org/details/sim_jama_1926-12-18_87_25_0/mode/2up). Accessed 6 Dec. 2024.

Under the Journal of the American Medical Association, Frederick Flinn, a toxicologist and physician of Radium Girl Grace Fryer, published a report titled "Radioactive Material: An Industrial Hazard?" on December 18, 1926. In this report, Flinn states that there are no harmful levels of radiation present in the USRC dial-painting plants, which led us to use this source to contrast Flinn's publicized opinion on the USRC plant with the opinions he privately told other scholars and scientists. We found this source on *Internet Archive* and used it to take a photo of part of Flinn's report.

Griffin, Frederick. "Society of the Living Dead!" *The Toronto Star Weekly* [Toronto], 23 Apr.

1938. *Blogspot.com*,

[samanthawilcoxson.blogspot.com/2021/06/society-of-living-dead.html](https://samanthawilcoxson.blogspot.com/2021/06/society-of-living-dead.html). Accessed 8 Jan. 2025.

On April 23, 1938 Journalist Frederick Griffin published a story in the Toronto Star Weekly newspaper titled “Society of the Living Dead!”, which included an interview with Radium Girls lawyer, Leonard Grossman. The source quoted Grossman discussing the severe injustice experienced by the Radium Girls but, fortunately, the push their case has made towards better industry safety standards. This source was very useful to us because it provided a powerful example of the media's perspective on the Radium Girls as the dial-painters being pioneers in industry safety.

Haithi Trust. "Columbia University Alumni Register, 1754-1931, Compiled by the Committee on General Catalogue." *Babel.haithitrust*,

[babel.hathitrust.org/cgi/pt?id=uc1.b4525470&seq=307](https://babel.hathitrust.org/cgi/pt?id=uc1.b4525470&seq=307). Accessed 24 Jan. 2025.

This source is a compilation of all Columbia University alumni between 1754 to 1931. We used this source to find the credentials of Dr. Frederick B. Flinn who, although gave a medical examination of Katherine Schaub concluding USRC was not responsible for her injuries, was not a certified Medical doctor but only had a Ph.D. This source proved to us that the USRC and Flinn lied about Flinn's credentials in order to have Flinn hopefully convince Radium Girl Katherine Schaub that her injuries were not due to radium exposure in the USRC dial-painting plant.

Hamilton, Alice. Letter to Cecil Drinker. 4 Apr. 1925. *Library of Congress Manuscript Division*, [www.loc.gov/research-centers/manuscript/about-this-research-center/](http://www.loc.gov/research-centers/manuscript/about-this-research-center/). Accessed 24 Jan. 2025.

This is a letter between the physicians Alice Hamilton and Cecil Drinker who collaborated on completing the assessment of the USRC plant as to whether the facility exposed its employees to harmful levels of radium. This letter can be found in reel 3 of the Raymond Berry Microfilm Reels in the Library of Congress Manuscript Division under the National Consumers' League of Records. We used this letter to show the underhanded tactics Arthur Roeder used to silence the cries of the Radium Girls by submitting a manipulated report of Drinker's assesment on the safety of the USRC plant and its employees.

---. Letter to Cecil Drinker. 4 Apr. 1925. *Library of Congress*, [www.loc.gov/research-centers/manuscript/about-this-research-center/](http://www.loc.gov/research-centers/manuscript/about-this-research-center/). Accessed 6 Mar. 2025.

This is a letter between the physicians Alice Hamilton and Cecil Drinker who were partners in the experiment funded by the USRC plant as to whether the facility exposed its employees to harmful levels of radium. This is present in reel 3 of the Raymond Berry Microfilm Reels in the Library of Congress Manuscript Division under the National Consumers League of Records. We used this letter to show how corrupt doctors disregarded medical analysis in exchange for getting benefits from large industrial corporations like the USRC, even if it was at the expense of the Radium Girls.

"Hear Case of Dying Woman." *Worcester Democrat and the Ledger-Enterprise* [Pocomoke City, MD], 4 Mar. 1928, p. 9.

Newspaper Worcester Democrat and the Ledger-Enterprise published a story titled "Hear Case of Dying Woman" on March 4, 1928 in Pocomoke City, Maryland. This article heavily leaned towards victimizing the Radium Girls but depicting the feeble state of Radium Girl Catherine Donohue as she fights to receive compensation for her radium poisoning caused by the USRC. This source proved to us how the sympathy for the Radium Girls and the support the girls got from media outlets came from all around the nation.

Lippmann, Walter. "The Case of the Five Women." *New York World*, 19 May 1928, p. 23.

On May 19, 1928, editor Walter Lippmann published the article "The Case of the Five Women" in the New-York World that heavily empathized with the struggles facing the dying Radium Girls as their trial was suspiciously moved to a later date. Lippmann frowns on the decision to delay the case and berates the USRC for allowing their employees to slowly deteriorate from radium and then not provide any compensation of treatment. This article showed the massive uproar in media support for the Radium Girls during their trial.

---. "Five Women Doomed to Die." *New York World*, 10 May 1928, p. 14.

In the May 10, 1928 New-York World Newspaper under the title "Five Women Doomed to Die", editor Walter Lippmann comments on the injustice surrounding the Radium Girls trials with a heavy bias towards the radium girls. Lippmann voices his disapproval for the court delay even though it is unclear whether the Radium Girls will even survive to participate in the new trial date. This source

showed us the massive surge in media that supported the Radium Girls and their efforts to seek justice while also throwing disapproval towards the USRC and its affiliates for abandoning human decency over their employees.

Mould, Richard F. "Pierre Curie, 1859-1906." Translated by Jean Dutreix. *PubMed Central*, edited by U.S. National Institutes of Health's National Library of Medicine, National Center for Biotechnology Information, 2006, [pmc.ncbi.nlm.nih.gov/articles/PMC1891197/pdf/CO14\\_2p074.pdf](https://pubmed.ncbi.nlm.nih.gov/articles/PMC1891197/pdf/CO14_2p074.pdf). Accessed 31 Jan. 2025.

This is a website published by the National Center for Biotechnology Information that is part of the U.S. National Institutes of Health's National Library of Medicine. The source we used was translated by Dr. Jean Dutreix, consisting of Germans Freidrich Walkoff and Freidrich Giesel who willingly exposed Giesel's arm to radium to record the effect. We used this source to prove the existence of radium exposure dangers before the Radium Girl cases, showing that the USRC had access to knowledge about the harms of radium.

---. "Pierre Curie, 1859-1906." *PubMed Central*, edited by U.S. National Institutes of Health's National Library of Medicine, National Center for Biotechnology Information, 2006, [pmc.ncbi.nlm.nih.gov/articles/PMC1891197/pdf/CO14\\_2p074.pdf](https://pubmed.ncbi.nlm.nih.gov/articles/PMC1891197/pdf/CO14_2p074.pdf). Accessed 31 Jan. 2025.

This is a website published by the National Center for Biotechnology Information that is part of the U.S. National Institutes of Health's National Library of Medicine. This article written by Richard F. Mould, who has a Ph.D, discusses the prominent work of Pierre Curie throughout his life, giving rise to many of Pierre's

lesser known works on radium. This source showed us how there was a plethora or scholarly research showing the harmful effects of radium that was published years before the establishment of the Orange, New Jersey USRC plant but the company still willingly subjected its dial-painters to harmful levels of radium.

"Necrosis Cases Declared Growing." *Newark Evening* [Newark], 20 June 1925, p. 1, 4.

*Newark.historyarchives.online,*

[newark.historyarchives.online/viewer?k=necrosis%20cases%20declared%20growing&i=f&d=01011872-12311972&m=between&ord=k1&fn=newark\\_evening\\_news\\_usa\\_new\\_jersey\\_newark\\_19250620\\_english\\_1&df=1&dt=10&cid=3401](http://newark.historyarchives.online/viewer?k=necrosis%20cases%20declared%20growing&i=f&d=01011872-12311972&m=between&ord=k1&fn=newark_evening_news_usa_new_jersey_newark_19250620_english_1&df=1&dt=10&cid=3401). Accessed 26 Jan. 2025.

On June 20, 1925, the Newark Evening News published a story titled "Necrosis Cases Declared Growing" in Orange, New Jersey. This article focused on the impending lawsuit against the Orange City USRC plant from neighboring residents who claimed that the facility was emitting toxic fumes: these fumes got so potent that gas masks were distributed to the neighborhood, causing Health Officer Lenore Young to aid the people in their suit against the USRC. This newspaper showed us the blatant disregard the USRC had for upholding industry safety standards as well as the negative effects its facilities had on innocent people, whether that was its workers or surrounding communities.

New Jersey State, Legislature. Act no. 29. *N.J. Laws*, vol. 1949, 13 Apr. 1949, p. 105.

*Dspace.njstatelib.org,*

[dspace.njstatelib.org/items/5e4f5a98-e385-44d8-a45e-67bb7d39e8ff](http://dspace.njstatelib.org/items/5e4f5a98-e385-44d8-a45e-67bb7d39e8ff). Accessed 3 Feb. 2025.

This source is a collection, from the New Jersey State Library, of all laws passed in the State of New Jersey during the year 1949, with the intended audience being government officials or students. From this collection, we focused on act number 29 that pertained to the Occupational Diseases Act, which discussed the extent of compensable occupational diseases. We used this source to learn how legislation around compensable industry diseases changed after the radium girls became more inclusive and effective at serving justice to injured employees.

New-York Tribune. "Radium and Beauty." *New-York Tribune* [New York City], 10 Nov. 1918, p. 12. *Library of Congress*, [www.loc.gov/resource/sn83030214/1918-11-10/ed-1/?sp=12&st=pdf&r=-0.231,-0.384,1.462,1.462,0](http://www.loc.gov/resource/sn83030214/1918-11-10/ed-1/?sp=12&st=pdf&r=-0.231,-0.384,1.462,1.462,0). Accessed 23 Jan. 2025.

This is a newspaper published on November 10, 1918 by the New-York Tribune, an old American newspaper company based in New York City. This article promotes radium-laced beauty products to the general public, stating that the product will greatly benefit the user's skin in multiple ways. Since it was still unknown that radium is an extremely dangerous element, this newspaper helped us understand how people's perceptions of radium in the late 1910's were influenced by company advertisements.

"Occupational Disease Legislation in the United States, 1936." *Rhode Island Workers' Compensation Court*, 1937, [www.courts.ri.gov/Courts/workerscompensationcourt/Documents/Occupational-Disease%20Legislation%20in%20the%20United%20States.pdf](http://www.courts.ri.gov/Courts/workerscompensationcourt/Documents/Occupational-Disease%20Legislation%20in%20the%20United%20States.pdf). Accessed 1 Feb. 2025.

This source from the Rhode Island Workers' Compensation Court is a direct copy of the Occupational Disease Legislation in the United States passed 1936, meaning the source has no bias since it is a compilation of government documents and regulations. This article is angled towards industry officials and health offices as it states the regulations and limitations that surround work related illnesses, acting as an improved version of the Occupational Disease Act of 1911. In this source we learned about the beneficial changes to Industry Safety that were a direct result of the efforts of the Radium Girls.

"OSH Act of 1970." *Occupational Safety and Health Administration*, U.S. Department of Labor, [www.osha.gov/laws-regs/oshact/toc](http://www.osha.gov/laws-regs/oshact/toc). Accessed 5 Dec. 2024.

This source references the Occupational Safety and Health Act of 1970 that was passed by the government in order to enforce the need for industry safety for employees across America. This source is the actual legislation passed by the government and is therefore thoroughly unbiased, highlighting the idea that hazards resulting in injuries to employees must be dealt with. This source shows us how the attention the Radium Girls brought to industry safety has carried on decades after the event.

Rockefeller Foundation. *Conference on Industrial Hygiene*. *Internet Archive*, New York, 1919, [archive.org/details/conferenceonindu00rock/page/n67/mode/2up](http://archive.org/details/conferenceonindu00rock/page/n67/mode/2up). Accessed 6 Dec. 2024.

Dr. Charles Edmond Ford attended a conference on Industrial Hygiene in New York of 1919 that was hosted by the Rockefeller Foundation. At this event, Ford admits that it is a struggle to find morally righteous doctors to employ since all upcoming doctors seem to be obsessed with money. This source provided to us

that it was not an isolated act of one corrupt doctor but dozens of corrupt doctors that sabotaged the Radium Girls and tried to stop them from receiving compensation for their radium poisoning since it would cost the doctors lots of money and credibility.

Roeder, Arthur. Letter to Cecil Drinker. 18 June 1924. Raymond Berry Microreels 1, National Consumers' League of Records, Manuscript Division of the Library of Congress. Manuscript.

President of the USRC Arthur Roeder wrote to scientist Cecil Drinker on June 18, 1924 after his conclusions that the USRC Orange NJ plant exposed its workers to high amounts of radium, encouraging Drinker to say that the USRC plants conditions are very hygienic. This letter can be found in Radium Girls' lawyer Raymond Berry's Reel 1 which is housed in the Library of Congress Manuscript Division as a part of the National Women's Consumers' League of Records. This letter showed to us how the USRC disregarded the danger its radium-heavy facilities had towards its employees.

Serwer, Daniel Paul. *The Rise of Radiation Protection: Science, Medicine and Technology in Society*. 1976. Princeton U, Ph.D. dissertation. *OSTI.GOV*, [www.osti.gov/servlets/purl/7212842](http://www.osti.gov/servlets/purl/7212842). Accessed 5 Dec. 2024.

Daniel Serwer, a scholar with a Ph.D. in science history from the University of Chicago and Princeton, created this thesis titled "The Rise of Radiation ProtectionL Science, Medicine, and Technology in Society" and published it through the United States Energy Research and Development Administration. The article moves through the evolution of radium science beginning at the end of the

19th century and finishing around the 1930s, discussing the emergence of radium poisoning as well as technology developed to utilize the properties of radium.

This source helped us contextualize the field of radium studies leading up to the Radium Girls as well as the changes made to the attitude towards radium during the time of the dial-painters.

Schaub, Katherine. Katherine Schaub Testimony. July 1927. *Library of Congress Manuscript Division*, [www.loc.gov/research-centers/manuscript/about-this-research-center/](http://www.loc.gov/research-centers/manuscript/about-this-research-center/). Accessed 22 Jan. 2025.

This is a statement made by Radium Girl Katherine Schaub available in the Raymond Berry Reel 1 in the Library of Congress Manuscript Division. In this statement, Schaub admits that although Frederick Flinn didn't give her a thorough medical examination he still told her that the USRC was free of any guilt regarding her injuries. This statement showed us the lengths in which the USRC and Flinn would go to cover up the fact that luminous paint was behind the Radium Girls' injuries, even if it meant lying about medical credentials and scientific evidence.

US Bureau of Labor Statistics. *Monthly Labor Review*. Compiled by US Department of Labor, Report no. Volume 28, Number 6, June 1929. *Fraser.stlouisfed.org*, [fraser.stlouisfed.org/title/monthly-labor-review-6130/june-1929-608150](http://fraser.stlouisfed.org/title/monthly-labor-review-6130/june-1929-608150). Accessed 5 Dec. 2024.

This source is a copy of the U.S. Bureau of Labor Statistics Monthly Labor Review of June 1929, published by James Davis, the secretary of the U.S. Department of Labor. This review compiles everything labor related whether that

be current injustices in the workplace, new industry equipment developed, or new movements advocating for better industry safety standards. From this source, we accessed Dr. Harrison Martlands report on Occupation Poisoning in the Manufacture of Luminous Watch Dials, which discussed the scientific logistics and quantitative evidence of radium poisoning in dial-painters.

Walsh, Ruth K. "Transcript of Conference with Dr. Joseph Knef and United States Radium Corporation From New Jersey State Dental Society." 19 May 1926. Raymond Berry Microreel 3, Womens Consumers' League Records, Manuscript Division of the Library of Congress. Manuscript.

Ruth K. Walsh of The Master Recording Company Inc. recorded a conference between USRC official and Radium Girl Dentist Joseph Knef in 1926 which recorded Knef insisting the USRC pay him for his work on many of their dial painters in exchange for his testimony in court, which Knef admitted that he would change to benefit the USRC if they gave him 10,000 dollars. This transcript can be found in reel 3 of Radium Girl Lawyer Raymond Berry's Microfilms, which can be accessed through the Library of Congress Manuscript Division. This recorded conference showed us the medical corruption facing the Radium Girls and the ability for doctors to easily manipulate their medical statements to benefit industry agenda.

Zueblin, Ernst. "The Present Status of Radioactive Therapy in Medicine." *Maryland Medical Journal*, May 1914, pp. 108-24. *Internet Archive*, [archive.org/details/marylandmedicalj5719medi/page/124/mode/1up](https://archive.org/details/marylandmedicalj5719medi/page/124/mode/1up). Accessed 5 Dec. 2024.

In May of 1914, the Maryland Medical Journal published a report titled "The Present Status of Radioactive Therapy in Medicine" by medical doctor and Professor of Medicine at the University of Maryland Ernst Zueblin. This scholarly article was meant to educate other scholars in the field of medicine therapy on the recent "breakthroughs" in radioactive treatments as well as its discovered consequences. This source helped us see how many scholars verified the harms of radium exposure long before the cases of the Radium Girls, but the USRC plant still provided its dial painters with no protection for the radium-based luminous paint the employees used.

## **SECONDARY**

Andersen, Eric. Videoconference interview. Conducted by Angela Wang, 28 Mar. 2025.

This source is a self-conducted interview of Eric Andersen, who is the Radiation Safety Officer at the Dana-Farber Cancer Institute. During this interview, we asked Eric about the chemical uses of radium and what it has been used for in the past as well as its specific use pertaining to the case of the Radium Girls. This interview is meant for anybody curious about the properties of radium and, regarding our project, it helped us understand why radium became such a high-sought after product during the early nineteenth century.

Atomic Heritage Foundation. "The Radium Girls." *Atomic Heritage Foundation*, National Museum of Nuclear Science and History, 25 Apr. 2017, [ahf.nuclearmuseum.org/ahf/history/radium-girls/](http://ahf.nuclearmuseum.org/ahf/history/radium-girls/). Accessed 16 Jan. 2025.

This informative article was published by the Atomic Heritage Foundation, a non-profit organization that is currently partnered with the National Museum of

Science and History, whose goal is to preserve the Atomic Age, the Manhattan Project, and its legacies. This article presents the story of the Radium Girls, focusing on rise in popularity and the creation of the radium dials the workers created, explaining the impact of the Radium Girls as related to the success of the Manhattan Project. This helped us understand how radium began to rise in popularity at the beginning of the 20th century and its initial uses.

Bellows, Alan. "Undark and the Radium Girls." *Sign of the Times*, 26 Mar. 2013,

[www.sott.net/article/260209-Undark-and-the-Radium-Girls](http://www.sott.net/article/260209-Undark-and-the-Radium-Girls). Accessed 21 Jan. 2025.

This informative article from March 2013 was written by Alan Bellows, a non-fiction author whose work focuses on the obscure stories of science. Bellows wrote this article to inform people of the Radium Girls story, emphasizing the role Undark paint played in the decline of the girls' health, what the inspectors the USRC hired to inspect the workplaces found, and the media outrage the girl's publicized trials brought. This article helped us understand how lip painting worked, as well as the public's reaction towards the entirety of the trial procedures.

Clark, Claudia. *Radium Girls, Women and Industrial Health Reform : 1910-1935*. U of North Carolina P, 1997.

The book *Radium Girls, Women and Industrial Health Reform: 1910-1935*, is written by professor at Central Michigan University and former chemical plant worker Claudia Clark with the target audience being people who are interested in learning about the evolution of industry safety and the roles the Radium Girls played in that evolution. This book covers all aspects of the Radium Girls case: it

starts with early industry safety laws and then leads into initial evidence of radium poisoning and ultimately dives into the inner workings of the Radium Girls case and explores the positive effects on industry safety that it had. From this book we learned about many specific examples of medical corruption the Radium Girls were faced with and how those doctors manipulated the trials and public opinion on radium poisoning.

Coursey, Bert M. "The National Bureau of Standards and the Radium Dial Painters." *Journal of Research of the National Institute of Standards and Technology*, vol. 126, 2021, <https://doi.org/10.6028/jres.126.051>. Accessed 16 Jan. 2025.

This article, "The National Bureau of Standards and the Radium Dial Painters" is published in the Journal of Research of the National Institute of Standards and Technology (NIST) is written by Bert Coursey, researcher in the Standards Coordination Office at NIST and physical chemist with a Ph.D. The article predominantly discusses the development of radiation detection technology as a result of the Radium Girls as well as the effect this new information had on radiation protection standards. This source taught us how even before the Radium Girls had settled their trial, the dial-painters' story was already causing breakthroughs in the scientific world which began to turn its attention to radium and acknowledge its useful yet hazardous capabilities.

Fryer, Art. Videoconference interview. Conducted by Angela Wang. 29 Mar. 2025.

This source is a self-conducted interview of Art Fryer, the nephew of popular Radium Girl and political activist for worker rights, Grace Fryer. Although Art Fryer never met Grace himself, he is deeply involved in his family history and

learned about his aunt's experiences through his father, allowing this interview to be a great source for both historians and people who are curious about the Radium Girls. During this interview, we questioned Art Fryer about how he saw the effects of Grace Fryer and the other Radium Girls even after their deaths, which helped us contextualize the changes the Radium Girls had on American industries.

Juris Magazine. "Radium Girls: A Tale of Workplace Safety." *Juris Magazine*, 1 Dec. 2019, [sites.law.duq.edu/juris/2019/12/01/the-radium-girls-a-tale-of-workplace-safety/](https://sites.law.duq.edu/juris/2019/12/01/the-radium-girls-a-tale-of-workplace-safety/). Accessed 22 Nov. 2024.

This article is a part of Juris Magazine, published by the Duquesne University School of Law, and follows the Radium Girls through their legal experiences from their time working as dial-painters in the USRC all the way to the mid 20th century, where it reflects on the occupational safety regulations influenced by the Radium Girls. Although this source is biased towards sympathizing with the radium girls and painting them as heroins, the source does back its claims up with supportive and credible evidence, making this article a trustworthy source. This article helped us get a broad understanding of the main events that solidified the Radium Girls as a historical marker in the fight for industry safety.

Kate Moore. "The Radium Girls by Kate Moore." *Diary of an Auto Didact*, 11 Oct. 2017, [fiddlrts.blogspot.com/2017/10/the-radium-girls-by-kate-moore.html](http://fiddlrts.blogspot.com/2017/10/the-radium-girls-by-kate-moore.html). Accessed 24 Jan. 2025.

We used this site to corroborate our information on the credentials of Frederick Flinn shown in the Haiti trust source. We did this because there was a chance that

Flinn got his MD at a different school than he got his Ph.D. (Columbia University). However, this source corroborates our findings and is written by a very knowledgeable author, Kate Moore, who wrote a very successful and detailed book on the experience and legal proceedings of the Radium Girls.

Kovarik, Bill, et al. "Radium Girls." *Environmentalhistory.org*, 1996, [environmentalhistory.org/people/radiumgirls/](http://environmentalhistory.org/people/radiumgirls/). Accessed 6 Mar. 2025.

This source, made by historian and professor Bill Kovarik with environmental journalist Mark Neuzil, is focused on the first hand accounts given to the public from dial painters, written with the intent to educate its readers on the dangers of radium as well as raise awareness for past injustices committed in the worker industry. This source is backed by credible, primary accounts from Radium Girls, scientists, and political activists. The article quotes Grace Fryer and Cecil Drinker extensively, with Grace Fryer talking about her experience as a dial painter and Cecil Drinker exposing USRC conditions to be toxic and unfit for dial painters. We used the quotes given from Grace Fryer in our project to give first hand accounts of the USRC conditions: this highlighted the lack of effort USRC officials put towards ensuring the safety of its workers.

Martin, Dr. Frances. Videoconference interview. Conducted by Angela Wang. 26 Mar. 2025.

This source is a self-conducted interview of Dr. Frances Martin, who works as an archive collector at the Mattatuck Museum located in Waterbury Connecticut, which houses many artifacts related to the Radium Girls. During the interview, we asked Dr. Martin questions related to the reasoning behind governments and companies choosing not to prioritize the safety of the workers as well as why

these women were so susceptible to having the injustices enacted upon them go unnoticed for so long. From this source, we learned about the reasoning for why companies and government agencies allowed for workers rights to be neglected in the first place.

McAndrew, Tara McClellan. "The Radium Girls: An Illinois Tragedy." *Nprillinois.org*, 25 Jan. 2018, [www.nprillinois.org/equity-justice/2018-01-25/the-radium-girls-an-illinois-tragedy](http://www.nprillinois.org/equity-justice/2018-01-25/the-radium-girls-an-illinois-tragedy). Accessed 26 Jan. 2025.

News outlet NPR Illinois interviewed Darlene Halm, niece of deceased Radium Girl Peg Looney and therefore slightly biased toward sympathizing with Looney's experience with the USRC. Although Darlene Halm was not alive at the time of Looney's death, she tells NPR Illinois about how her aunt's body was never properly autopsied even with demands from Looney's family. This source shows how the USRC went as far as interfering with dial-painters after they died so that no scientist would be able to prove radium poisoning through an autopsy.

Moore, Kate H. *The Radium Girls: The Dark Story of America's Shining Women*. Sourcebooks, 2017.

The book, *The Radium Girls: The Dark Story of America's Shining Women*, written by Kate Moore who has an academic background at the University of Warwick and conducted extensive research throughout the book, displays the heroic story of dial-painters employed by the United States Radium Corporation who fell ill from the luminous paint and viciously fought to receive compensation for their injuries. This source is angled towards students and academic scholars interested in industry safety evolution, with the book analyzing first hand

accounts of the dial-painters, medical research on USRC facilities as well as articles by the press regarding the injustice of the Radium Girls' trials. This source helped us understand how the Radium Girls were constantly fighting against the broken system of industry safety and ultimately forced changes in occupational compensation for illnesses.

Mould, R. F. "The Discovery of Radium in 1898 by Maria Sklodowska-Curie (1867-1934) and Pierre Curie (1859-1906) with Commentary on Their Life and Times." *The British Journal of Radiology*, vol. 71, no. 852, 1 Dec. 1998, pp. 1229-54. *PubMed*, <https://doi.org/10.1259/bjr.71.852.10318996>. Accessed 22 Nov. 2024.

This article, "The Discovery of Radium in 1898 by Maria Sklodowska-Curie (1867-1934) and Pierre Curie (1859-1906) with Commentary on Their Life and Times.", is published on the National Library of Medicine Website, an official website of the U.S. government, and is written by author R. F. Mould who has a robust history of writing articles pertaining to radium and radiation for the National Library of Medicine. This article focuses on the discovery of radium by Marie and Pierre Curie, and helped us grasp an initial understanding of the properties of radium that were known to the public upon its discovery.

*New Jersey Department of Environmental Protection*. Mar. 2019, [www.nj.gov/dep/hpo/1identify/nrsr\\_19\\_Mar\\_Radium\\_girls.pdf](http://www.nj.gov/dep/hpo/1identify/nrsr_19_Mar_Radium_girls.pdf).

The article for NewJersey.gov is an educational article about the Radium Girls and their effect on Industry safety, with a relatively unbiased view that somewhat paints the Radium Girls as heroic. The source describes the legal proceedings of the Radium Girls as well as the legacy they left on that statute of limitations for

occupational diseases as well as required safety precautions in facilities. This source revealed the many effects the Radium Girls had on bettering industry safety as a result of their efforts against the USRC.

"OSHA's 30th Anniversary." *Occupational Safety and Health Administration*, U.S. Department of Labor,

[www.osha.gov/aboutosha/30-years#:~:text=OSHA%20was%20created%20because%20of%20deaths%20in%20the%20workplace](http://www.osha.gov/aboutosha/30-years#:~:text=OSHA%20was%20created%20because%20of%20deaths%20in%20the%20workplace). Accessed 1 Feb. 2025.

This site is an official website of the U.S. government and extension of the Department of Labor. It commemorates the 30th year of the Occupational Safety and Health Administration, with an emphasis on acknowledging the historical events leading up to the Administration's creation. The site dissected the specific acts and change in legislation that led to the creation of OSHA as well as defining the success OSHA had experienced in protecting workers since its establishment. This source taught us how the Radium Girls resulted in raising awareness for industry safety regulation, causing the creation of OSHA which is focused on advocating for industry workers harmed by their employees.

Roeder, Amy. "Deadly Occupation, Forged Report." *Harvard School of Public Health*, 2013, [www.hsph.harvard.edu/news/magazine/centennial-radium-forged-report/#:~:text=In%20the%20early%201920s%2C%20workers,expert%20Cecil%20Drinker%20to%20investigate](http://www.hsph.harvard.edu/news/magazine/centennial-radium-forged-report/#:~:text=In%20the%20early%201920s%2C%20workers,expert%20Cecil%20Drinker%20to%20investigate). Accessed 22 Nov. 2024.

This source was published by the Harvard School of Public Health and was written by a faculty member of the administration, meaning it is not written by a student attending the Harvard school. The source focuses on demonizing the

USRC for forging medical reports to hinder the dial-painters in their suit against their previous employers. That being said, this source further exposed us to the medical corruption embedded within the legal system at the time of the Radium Girls as well as the influence large corporations had over doctors and physicians.

Stockton, Richard. "The Story of the Radium Girls and Their Decades-Long Fight for Justice."

Edited by John Kuroski. *Allthatinteresting.com*, 6 Apr. 2023,

[allthatsinteresting.com/radium-girls](https://allthatsinteresting.com/radium-girls). Accessed 2 Feb. 2025.

The article "The Story of the Radium Girls and Their Decades-Long Fight for Justice" is written by freelance science and technology writer Richard Stockton and discussed the injustice faced by the Radium Girls in their fight for compensation which ultimately pivoted America's views on Industry safety. The article talks about the effects Radium Girls had on legislation and protection against radioactive materials in facilities. This source helped us learn how the Radium Girls influenced safety precautions used on the Manhattan Project during World War II.

United States Nuclear Regulatory Commission. "Radium." *Nuclear Regulatory Commission*, 6 July 2023, [www.nrc.gov/materials/types/radium.html](https://www.nrc.gov/materials/types/radium.html). Accessed 22 Nov. 2024.

The United States Nuclear Regulatory Commission created this article under the basis of "protecting and the environment" by educating the average person or student on the dangers and uses of radium. The article begins by explaining radium by its scientific characteristics until moving on to the evolution of laws pertaining to radium regulation, ultimately explaining how radium is used for military purposes. This source taught us about the basic properties of radium and

how they were not fully understood at the time of the Radium Girls in the early 19th century.

## **IMAGES**

A radium clock used in WWI. *Connecticut in World War I*,

[ctinworldwar1.org/wwi-production-poisoned-ct-radium-girls/](http://ctinworldwar1.org/wwi-production-poisoned-ct-radium-girls/). Accessed 27 Jan. 2025.

We used this website to find a picture of a clock, painted over with radium-based paint by the woman workers, that was used in World War I.

*A Copy of a Photograph of the "Radium Girls" Who Worked at the U.S. Radium Corporation in Orange, circa 1922 or 1923. Nj.com,*

[www.nj.com/entertainment/2020/02/njs-radium-girls-made-history-by-seeking-justice-now-their-story-is-headed-to-theaters.html](http://www.nj.com/entertainment/2020/02/njs-radium-girls-made-history-by-seeking-justice-now-their-story-is-headed-to-theaters.html). Accessed 1 Feb. 2025.

We used Newjersey.com to find a photo of women painting luminous dials in the USRC plant in Orange, New Jersey during 1922 or 1923.

*A Dial Painter with Radium-Induced Cancer of the Knee. Afacwa.org,*

[www.afacwa.org/the\\_forgotten\\_story\\_of\\_the\\_radium\\_girls\\_whose\\_deaths\\_saved\\_thousands\\_of\\_workers\\_lives](http://www.afacwa.org/the_forgotten_story_of_the_radium_girls_whose_deaths_saved_thousands_of_workers_lives). Accessed 1 Feb. 2025.

We used Afacwa.org to find a photo of a Radium Girl suffering from a cancerous knee as a result of ingesting radium via lip pointing and radium dust.

A 1950s radium clock, exposed to ultraviolet light to increase luminescence. *Wikipedia,*

[en.wikipedia.org/wiki/Radium\\_dial](https://en.wikipedia.org/wiki/Radium_dial). Accessed 9 Jan. 2025.

We used Wikipedia to find a picture of a radium dial.

Advertisement for an Ingersoll "Radiolite" watch, in the Perry County Republican newspaper. 22

Nov. 1917. *Wikipedia*, [en.wikipedia.org/wiki/Radium\\_dial](https://en.wikipedia.org/wiki/Radium_dial). Accessed 24 Jan. 2025.

This is an advertisement for a watch painted with a coat of radium-based paint, which was published in the *Perry County Republican* newspaper on November 22, 1917.

Advertisement for Burk & Braun's radium chocolate. *The Atlantic*,

[www.theatlantic.com/health/archive/2012/10/we-used-to-put-radium-in-coffee/263408/](http://www.theatlantic.com/health/archive/2012/10/we-used-to-put-radium-in-coffee/263408/).

Accessed 2 Apr. 2025.

We used *The Atlantic* archives to find an advertisement for radium-laced chocolate.

American Weekly. Mollie Maggia Removed Jawbone. *Womenslibrary.org*,

[womenslibrary.org.uk/2017/11/28/radium-girls-the-dark-story-of-americas-shining-women-by-kate-moore/](http://womenslibrary.org.uk/2017/11/28/radium-girls-the-dark-story-of-americas-shining-women-by-kate-moore/). Accessed 1 Feb. 2025.

We used Womenslibrary.org to find a photo of Mollie Maggia's removed Jawbone after it was corroded away by radium poisoning she was exposed to during her time as a dial-painter for the USRC.

Bailey Radium Laboratories. A bottle of Radithor at the National Museum of Nuclear Science and History in New Mexico, United States. *Nuclear Museum*,

[www.nuclearmuseum.org/virtual/vex1/69B403CC-14E3-42B5-860A-956464211486.html](http://www.nuclearmuseum.org/virtual/vex1/69B403CC-14E3-42B5-860A-956464211486.html).

l. Accessed 23 Jan. 2025.

We used this Nuclear Museum virtual exhibit to find a picture of radium-laced water; this particular one is being held at the National Museum of Nuclear Science History in New Mexico, United States.

Castle, William, et al. *Necrosis of the Jaw in Workers Employed in Applying a Luminous Paint Containing Radium*. *Radiology-history.online*,  
[radiology-history.online/papers/radium-castle-O.pdf](http://radiology-history.online/papers/radium-castle-O.pdf). Accessed 5 Dec. 2024.

We used [Radiology-history.online](http://radiology-history.online) to find a photo of Cecil Drinker's report titled "Necrosis of the Jaw in Workers Employed in Applying a Luminous Paint Containing Radium" that was done to analyse the safety of the USRC plant in Orange New Jersey.

Collection of Ross Mullner. Front and Side Views of a Dial Painter with a Radium-Induced Sarcoma of the Chin. *Afacwa.org*,  
[www.afacwa.org/the\\_forgotten\\_story\\_of\\_the\\_radium\\_girls\\_whose\\_deaths\\_saved\\_thousands\\_of\\_workers\\_lives](http://www.afacwa.org/the_forgotten_story_of_the_radium_girls_whose_deaths_saved_thousands_of_workers_lives). Accessed 1 Feb. 2025.

We used [Afacwa.org](http://afacwa.org) to find a photo of a Radium Girl suffering from radium-induced sarcoma to show the severity of worker injuries caused by the USRC misconduct.

Drinker, Cecil K., et al. *Necrosis of the Jaw in Workers Employed in Applying a Luminous Paint Containing Radium*. *Archive.org*,  
[archive.org/details/sim\\_journal-of-industrial-hygiene-and-toxicology\\_1925-08\\_7\\_8](http://archive.org/details/sim_journal-of-industrial-hygiene-and-toxicology_1925-08_7_8). Accessed 21 Jan. 2025.

We used [Archive.org](http://archive.org) to access photos of Cecil Drinker's written report, ""Necrosis of the Jaw in Workers Employed in Applying a Luminous Paint Containing Radium" that was published in the Journal of Industrial Hygiene and Toxicology archives.

*5 Women Dying of Radium Poisoning*. 13 May 1938. *Chroniclingamerica.loc.gov*,  
[chroniclingamerica.loc.gov/lccn/sn83045462/1928-05-13/ed-1/seq-58/?loclr=blogser](http://chroniclingamerica.loc.gov/lccn/sn83045462/1928-05-13/ed-1/seq-58/?loclr=blogser).  
Accessed 1 Feb. 2025.

We used the Library of Congress to find a photo of the Radium Girls on the cover  
of the May 13 1928 Evening Star Story published in Washington D.C.

*Flinn to Schaub Letter December 7, 1925*. 7 Dec. 1925. *Library of Congress Manuscript  
Division*, [www.loc.gov/research-centers/manuscript/about-this-research-center/](http://www.loc.gov/research-centers/manuscript/about-this-research-center/).  
Accessed 20 Jan. 2025.

We used the Library of Congress Manuscripts Division to access the Raymond  
Berry Reel 1 that had a photo of Dr. Frederick Flinn's letter to Radium Girl  
Katherine Schaub on December 7 1925 suggesting Schaub to get a physical  
examination by Flinn.

*Grace Fryer*. 3 June 1928. *Wikitree.com*, [www.wikitree.com/photo/png/Fryer-428-3](http://www.wikitree.com/photo/png/Fryer-428-3). Accessed 1  
Feb. 2025.

We used Wikitree.com to find a photo of Grace Fryer who was a famous Radium  
Girl that spoke to many news outlets at the time of the Radium Girls publicity to  
garner support.

Harvard Medical School. *David Linn Edsall (1869-1845)*. 20th century. *Harvard Art Museums*,  
[harvardartmuseums.org/collections/object/305051](http://harvardartmuseums.org/collections/object/305051). Accessed 21 Jan. 2025.

We used the Harvard Art Museums to find a picture of Dr. David Edsall, who was  
the Dean of Harvard Medical School and School of Public Health from 1918 to  
1935.

*Hear Case of Dying Woman. Loc.gov,*

[blogs.loc.gov/headlinesandheroes/2019/03/radium-girls-living-dead-women/](https://blogs.loc.gov/headlinesandheroes/2019/03/radium-girls-living-dead-women/). Accessed 3 Feb. 2025.

We used the Library of Congress to find a photo of the Radium Girls on the cover of the Worcester Democrat and the Ledger-Enterprise newspaper published in Pocomoke City Maryland on March 4, 1928.

Image of Dr. Charles Edmund Ford. 24 Oct. 1912. *IMS Vintage Photos,*

[imsvintagephotos.com/products/british-scientist-dr-charles-edmund-ford-frs-poses-for-a-portrait-at-the-william-dunn-school-of-pathology-in-oxford-england-on-october-24-1912-vintage-photograph?srsIid=AfmBOorf-Fo\\_J9yyvmxOPMZkZiiKSlk2yaS\\_wcUjAkvZuhSWPhOVITp9](https://imsvintagephotos.com/products/british-scientist-dr-charles-edmund-ford-frs-poses-for-a-portrait-at-the-william-dunn-school-of-pathology-in-oxford-england-on-october-24-1912-vintage-photograph?srsIid=AfmBOorf-Fo_J9yyvmxOPMZkZiiKSlk2yaS_wcUjAkvZuhSWPhOVITp9). Accessed 9 Jan. 2025.

We used IMS Vintage Photos to find a photograph of Dr. Charles Edmund Ford who attended the Conference of Industrial Hygiene by the Rockefeller Foundation in 1919.

Image of Frederick Flinn. *We Remember, Ancestry,*

[www.weremember.com/frederick-flinn/4q5e/memories](https://www.weremember.com/frederick-flinn/4q5e/memories). Accessed 9 Jan. 2025.

We used We Remember to find a picture of Frederick Flinn who was the physician of Radium Girl Grace Fryer.

"Kate Moore: The Radium Girls." *YouTube*, uploaded by Naperville Community Television

NCTV17, 12 June 2017, [www.youtube.com/watch?v=gBqIqpEmgHk](https://www.youtube.com/watch?v=gBqIqpEmgHk). Accessed 31 Jan. 2025.

In 2017 Naperville Community Television interviewed author Kate Moore on her book titled Radium Girls and questioned her about the legacy of the radium girls.

This interview was intended for fans of Kate Moore as well as those interested in the impactful story of the dial painters in Orange, New Jersey during the early 20th century. In this video, we learned about the specifics of lip painting, a technique used by dial painters to sharpen the tips of their brushes, and how the USRC encouraged this habit even though it meant ingesting radium.

"Kate Moore: The Radium Girls." *YouTube*, uploaded by Pirate TV Seattle, 21 June 2017, [www.youtube.com/watch?v=SS6X8ZWI69c](http://www.youtube.com/watch?v=SS6X8ZWI69c). Accessed 1 Feb. 2025.

Pirate TV Seattle, known by the channel name "Ed Mays", recorded a conversation with author Kate Moore discussing the legacy of the Radium Girl dial-painters. Kate Moore wrote an extensive book (*The Radium Girls*) on the effects and challenges of 1920 dial painters who were unknowingly poisoned by the luminous paint they used. We used this recording to learn about the initial statute of limitations on occupational diseases as well as to show how this time frame enabled dial-painting companies to avoid compensating their ill employees for many years.

*The Legacy of the Radium Girls*. *Allthatsinteresting.com*, [allthatsinteresting.com/radium-girls](http://allthatsinteresting.com/radium-girls). Accessed 2 Feb. 2025.

We used [Allthatsinteresting.org](http://Allthatsinteresting.org) to find a photo of scientists wearing protective gear during the Manhattan Project to protect themselves from radioactive material as a result of the Radium Girls spreading awareness for radium poisoning.

List of Occupational Diseases Covered by Occupational Diseases Act of 1936. *Rhode Island Workers' Compensation Court*,

[www.courts.ri.gov/Courts/workerscompensationcourt/Documents/Occupational-Disease%20Legislation%20in%20the%20United%20States.pdf](http://www.courts.ri.gov/Courts/workerscompensationcourt/Documents/Occupational-Disease%20Legislation%20in%20the%20United%20States.pdf). Accessed 3 Feb. 2025.

We used this document to find a list of all the occupational diseases that are covered by the Occupational Diseases Act of 1936.

*'Living Death' Victims*. 14 Feb. 1938. *Chroniclingamerica.loc.gov*, [chroniclingamerica.loc.gov/lccn/sn86063811/1938-02-14/ed-1/seq-1/?locl=blogser](http://chroniclingamerica.loc.gov/lccn/sn86063811/1938-02-14/ed-1/seq-1/?locl=blogser). Accessed 1 Feb. 2025.

We used the Library of Congress to get a photo of the Radium Girls on the cover of The Times-News paper published on February 14, 1938 in Hendersomville North Carolina.

Marie Curie standing with Pierre Curie while working in a lab. 1898. *Victorian Era*, [victorian-era.org/famous-victorians/marie-curie-biography.html](http://victorian-era.org/famous-victorians/marie-curie-biography.html). Accessed 23 Jan. 2025.

We used Victorian-era.org to find a picture of Marie Curie standing with Pierre Curie while working in a lab.

Photo of a Young Alice Hamilton with a White Blouse. *Sciencehistory.org*, [www.sciencehistory.org/education/scientific-biographies/alice-hamilton/](http://www.sciencehistory.org/education/scientific-biographies/alice-hamilton/). Accessed 24 Jan. 2025.

We used Sciencehistory.org to find a photo of Alice Hamilton who was an expert in the field of occupational health and worked to punish the USRC for their dangerous facilities.

Photo of Harrison Stanford Martland. *Onlinelibrary.wiley.com*. Accessed 1 Feb. 2025.

We used Onlinelibrary.wiley.com to find a photo of Harrison Martland, a medical doctor who examined many USRC dial painters and concluded that their occupation had exposed them to harmful levels of radium.

*Picture of Theodor Blum. Wikipedia*, en.wikipedia.org/wiki/Theodor\_Blum. Accessed 30 Jan. 2025.

We used Wikipedia to find a picture of Dentist Theodor Blum, who was a specialist in the field of dental radiology.

Pierre Curie's Self-Inflicted Burn on His Forearm. 1901. *Humanhealth.iaea.org*, humanhealth.iaea.org/HHW/RadiationOncology/ICARO2/Presentations/Session15A\_01\_HaieMeder.pdf. Accessed 31 Jan. 2025.

We used Humanhealth.iaea.org to find a photo of Pierre Curie's burn after willingly exposing his forearm to radium in 1901, which is kept at the Maria Sklodowska Museum in Warsaw, Poland.

*Prof. Dr. Friedrich Giesel. 2019. Wikipedia*, commons.wikimedia.org/wiki/File:Prof.\_Dr.\_Friedrich\_Giesel.jpg. Accessed 2 Apr. 2025.

We used Friedrich Giesele's Wikipedia page to find a photo of him.

"Radium Girls - A Conversation with Kate Moore (March 12th, 2022)." *YouTube*, uploaded by LaSalle Public Library, 14 Mar. 2022, www.youtube.com/watch?v=lhykwmU1\_CI. Accessed 1 Feb. 2025.

In the youtube video, "Radium Girls - A Conversation with Kate Moore (March 12th, 2022)", renowned Author of Radium Girls Kate Moore is asked about the legacy of the radium girls. Kate Moore describes the Radium Girls in a very

heroic manner but provides logical changes caused by the dial painters such as compensation and statute of limitation on occupational diseases as well as the push for better protection against radioactivity. In this source we learned that not only did the Radium Girls have a direct effect on industry safety legislation at the time of their trial but also on the general attitude towards radioactive material.

*Radium Kills Katherine Schaub*. 20 Feb. 1933. *Pinterest*,

[www.pinterest.com/pin/346495765080341639/](https://www.pinterest.com/pin/346495765080341639/). Accessed 22 Jan. 2025.

We used Pinterest to find a photo of Katherine Schaub that is from the Evening Courier Newspaper of Camden New Jersey published in February 20, 1933, which we confirmed by cross examining the photo with this newspaper archive: <https://courierpostonline.newspapers.com/image/480107333/>.

*Raymond H. Berry*. *Brigham Young University*,

[4thwalldramaturgy.byu.edu/discover-solutions-to-radium-girls-study-guide-perm](http://4thwalldramaturgy.byu.edu/discover-solutions-to-radium-girls-study-guide-perm).

Accessed 6 Mar. 2025.

We used this website to find a picture of Raymond H. Berry, who was the lawyer of the Radium Girls.

Removed Lower Jaw of a Deceased Radium Girl. *Iancpilarczyk.com*,

[iancpilarczyk.com/the-radium-girls-deodands-and-the-rise-of-workers-compensation/](http://iancpilarczyk.com/the-radium-girls-deodands-and-the-rise-of-workers-compensation/).

Accessed 1 Feb. 2025.

We used Iancpilarczyk.com, a blog by a legal historian, to find a photo of a low jaw of a deceased radium girl to show the destructive properties of radium poisoning.

*Roeder to Drinker Letter June 18, 1924.* 18 June 1924. Raymond Berry Microreels 1, National Consumers' League of Records, Manuscript Division of the Library of Congress.

We used the National Consumers' League of Records to access the Raymond Berry Reel 1 that had a photo of a letter between USRC president Arthur Roeder and scientist Cecil Drinker from June 18, 1924.

*Roeder to Hoffman Letter November ,1926.* Nov. 1926. *Library of Congress Manuscript Division*, [www.loc.gov/research-centers/manuscript/about-this-research-center/](http://www.loc.gov/research-centers/manuscript/about-this-research-center/). Accessed 20 Jan. 2025.

We used the Library of Congress Manuscript Division to access the Raymond Berry Reel 1 which had a photo of USRC president Arthur Roeder's letter to doctor Frederick Hoffman in November 1926 encouraging Radium Girl Katherine Schaub to get medically examined by Dr. Frederick Flinn.

"Settlement of a Pathetic Case." *The Evening Star* [Washington D.C], 5 June 1928, p. 8, Library of Congress.

We used the Library of Congress to find a photo of a Newspaper headline from June 5 1928 that sympathized with the Radium Girls and supported their fight for justice.

*The New York Times* [New York City]. 28 Apr. 1928. *Nj.gov*, [www.nj.gov/dep/hpo/1identify/nrsr\\_19\\_Mar\\_Radium\\_girls.pdf](http://www.nj.gov/dep/hpo/1identify/nrsr_19_Mar_Radium_girls.pdf). Accessed 1 Feb. 2025.

We used [NewJersey.gov](http://NewJersey.gov) to find a clipping of a New York Times Newspaper article from April 28, 1928 that reports on the delay of the Radium Girls trial.

Transcript of USRC and Knef Conference 1926 by Ruth K. Walsh. 19 May 1926. Raymond Berry Microreel 3, Womens Consumers' League Records, Manuscript Division of the Library of Congress.

We used the Library of Congress Manuscript Division to access the Raymond Berry Reel 1, which contained scans of Ruth K. Walsh's transcribed recording of a conference between USRC officials and Dentist Joseph Knef.

*United States Radium Corporation, 422-432 Alden Street, Orange, Essex County, NJ. Library of Congress, [www.loc.gov/resource/hhh.nj1643.photos/?sp=3&st=image](http://www.loc.gov/resource/hhh.nj1643.photos/?sp=3&st=image). Accessed 1 Feb. 2025.*

We used the Library of Congress to find a picture of the USRC dial-painting plant in Orange New Jersey.

A US Radium ad for "Undark" paint. *Damn Interesting,*

[www.damninteresting.com/undark-and-the-radium-girls/](http://www.damninteresting.com/undark-and-the-radium-girls/). Accessed 24 Jan. 2025.

We used this [Damninteresting.com](http://www.damninteresting.com) to find an original advertisement for Undark paint.

Weinstein, Gerald. *United States Radium Corporation, Radium Crystallization Laboratory, 428 Alden Street, Orange, Essex County, NJ. Loc.gov,*

[www.loc.gov/pictures/resource/hhh.nj1645.photos.384850p/](http://www.loc.gov/pictures/resource/hhh.nj1645.photos.384850p/). Accessed 1 Feb. 2025.

We used the Library of Congress to find a photo of the Radium Crystallization Laboratory in Orange New Jersey.

Women painting radium on watch dials for the proudly (and aptly) named Radium Dial company.

1922. *Quill & Pad,*

[quillandpad.com/2015/03/13/radium-watch-dials-and-radium-girls-who-would-have-thought-eating-radioactive-material-was-deadly/](http://quillandpad.com/2015/03/13/radium-watch-dials-and-radium-girls-who-would-have-thought-eating-radioactive-material-was-deadly/). Accessed 1 Feb. 2025.

We used this website to find a picture of the women painting watch dials in a factory during the time of the Radium Girls.

Women working at a factory of the United States Radium Corporation. 1922. *National Institute of Standards and Technology*,

[www.nist.gov/blogs/taking-measure/new-jerseys-radium-girls-and-nist-trained-scientist-who-came-their-aid](http://www.nist.gov/blogs/taking-measure/new-jerseys-radium-girls-and-nist-trained-scientist-who-came-their-aid). Accessed 31 Jan. 2025.

We used this website to find a picture of the painters working in a factory.