Taking the Power Out of the Nuclear Industry:
Records of Citizen Activism against the Tyrone Energy Park

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Contents

Abbreviations

Citizens for Tomorrow ..... CFT

Tyrone Energy Park ..... TEP

Northern States Power Company ..... NSP

Public Service Commission ..... PSC

Kraftwerk Union Company ..... KWU

Abstract

This paper analyzes the 1973 proposal of a nuclear plant site known as the Tyrone Energy Park. In 1973, the Northern States Power Company of Minnesota planned to build the energy park in Northwestern Wisconsin between the cities of Durand and Eau Claire. Then Northern States Power Company faced extreme opposition throughout the 1970s, especially by local farmers who's lands were condemned by the energy company. The local farmers along with other citizen activists created grass roots organizations and joined with others against the Tyrone Energy Park. This paper focuses mainly on the group known as the Citizen for Tomorrow and their against the Northern States Power Company. However, before this paper presents on the Tyrone Energy Park and its opposition, background information will discuss how nuclear power was viewed within the 1970s and during the global energy crisis. Specifically, the text will cover the general risks and benefits of nuclear energy and then will explain how the country of Germany addressed the risks and benefits involved with nuclear energy to their public. This paper will detail the how citizen activist groups worked to ultimately deny the construction of the Tyrone Energy Park.

Introduction

In rural Northwest Wisconsin, a man by the name of Hamilton Hubbard was one of the earliest settlers to the region. Hubbard came to Wisconsin in the 1850's as a motivated man, with hopes to begin a new life and to bring industry to the area. One of his first exploits was the digging of a canal to carry logs out of the Chippewa and Red Cedar Rivers to further float them into a holding area were the would later be used in a one of Hubbard's sawmills. Logging, along with farming, was one of the main ways of life for many settlers at this time. This holding area, known as Lake Tyrone, would correlate well with a later plotted village in the year 1858.

Hubbard himself owned over 800 acres of land at this time, plotted his land, and created the Village of Tyrone. Within this small village, Hubbard built himself a home and constructed a hotel for passengers riding steamboats on the Chippewa River. The village soon had many other additions, such as a school, blacksmith shop, livery stable, and another sawmill. As the era of the railroad industry progressed throughout the developing US, it unfortunately did not bring its economic opportunities or revenue to Tyrone. Because of this, Hamilton sold the area of Tyrone and moved on to other developing states such as Michigan and Virginia. As Hubbard left Tyrone – the area by this time was virtually abandoned – the atmosphere of entrepreneurship and prosperity had left along with him.[1]

In 2016, this village is currently unincorporated and is not home to many industrious men such as Hamilton Hubbard. The surrounding towns or cities, such as Durand, Eau Claire, or Menominee, are where more settlers eventually congregated. However, the story was not over

[1]Town Hall Board of Peru, "The Comprehensive Plan for the Town of Peru", December, 2007, accessed November, 1, 2016, http://www.co.dunn.wi.us/vertical/Sites/%7BD750D8EC-F485-41AF-8057-2CE69E2B175A%7D/uploads/town_of_peru.

for this small village. The Village of Tyrone formally founded by Hubbard in 1856, was an area of great importance once again in the year 1973. This land in Northwestern Wisconsin that was once valuable for logging was now being looked at for a much different type of economic gain.

Nuclear power was the newest venture for this region of Tyrone Wisconsin. At the end of 1974, the Northern States Power Company (NSP), which is Xcel Energy today, was a major producer and carrier of electricity, and served Minnesota, Wisconsin, North Dakota, and South Dakota. As a growing company, the NSP was looking towards the Eastern sections of Wisconsin, since it had already been serving sectors in central Wisconsin.[2] In the cities of Eau Claire, Menominee, and Durand Wisconsin, Xcel Energy is still the major provider of electricity for the region in 2016. In addition to these relatively small cities, Xcel Energy currently provides for other US states such as Texas, Michigan, Colorado, and New Mexico. During this time, NSP was based out of both Minnesota and Wisconsin. Specifically, their was a Minnesota Northern States Power and Wisconsin States Power. Understanding the strength of this company, and the vast amount of energy it supplied, is vital to understanding why denying the construction of the Tyrone Energy Park in the late 1970's was so important.

Knowing that the Public Service Commission (PSC) denied this plant's construction initially in 1978, one year before the major Three-Mile Island Plant nuclear incident in Pennsylvania, this paper will display the specific reasons against the construction of this power plant before the incident. Through displaying these reasons, however, the Three-Mile Island incident will not be the primary focus, but is crucial to include within this paper to understand the gravity of the Tyrone Energy Park's denial. This paper will primarily focus on the local

[2] Northern States Power Company of Minnesota and Northern States Power Company of Wisconsin, U.S. Nuclear Regulatory Commission, "*Final Environment Statement Related to Construction of Tyrone Energy Park"* (Springfield, Virginia, 1977), 8.1.2.

opposition against the Tyrone Energy Park and the influence they had on the denial of the plant's construction. Specifically, their influence to legally delay the plant's construction which eventually raised production costs high enough so the Northern States Power Company gave up on its plan to build the plant.

This paper will use primary sources created by the US Nuclear Commission and the Office of Nuclear Regulation to gain a better understanding of how the US government process worked in relation to approving a nuclear power plant. Along with these governmental texts, the use of archival boxes titled the *Clara Bauer Papers* will be used to understand the opposition's viewpoints and tactics against the Tyrone Energy Park.

Historiography

What is Nuclear Power? What are its Risks and Benefits? – Identifying the Research

The purpose of this paper is not to solely explain what nuclear power is or to detail the history of this energy. However, gaining an understanding of what nuclear power is – and how it is created – is helpful when discussing the various issues surrounding the construction of nuclear power plants and their possible negative environmental effects. When engineers and scientists create nuclear energy, they take the smallest units of known matter – the atom – and further break it down or split it. The splitting process, defined as fission, releases a large amount of energy. This energy is then used to heat water, which creates steam that powers turbines, that finally creates electricity. Research on the atom and nuclear energy can be pinpointed as far back as the late 1800's, but the first major break-through came in 1934 when an Italian-American

physicist, Enrico Fermi, produced the first fission reaction.[3] When Enrico Fermi made this major breakthrough, he put into motion the beginnings of a new and powerful energy source. This type of complex process comes with great energy reward, but also comes with great risk. Understanding the risks and benefits of nuclear energy are at the heart of this paper, so outlining some of basic viewpoints from both sides is essential for one's overall understanding.

There are two sides to the debate over nuclear power. One side believes that the benefits outweigh its risks and the other side believes the risks outweigh its benefits. For instance, those who approve of nuclear energy, view burning traditional fossil fuels for energy as more harmful then nuclear energy production. In particular, this side notes that the impact of burning fossil fuels has contributed significantly to our growing global warming issue. Global warming issue is quite evident in 2016, where the planet's year-round standing ice at the poles have been diminishing year-after-year; which then has had a significant effect on our planet's sea levels, which have risen steadily. Along with global warming and rising sea levels, oil spills are another concern or noted negative against using fossil fuels. One of the most significant spills in these recent years was the Deepwater Horizon oil spill in April of 2010. This oilrig was under the control and supervision of the British Petroleum company within the Gulf of Mexico. The spill was recognized as the worst oil spill in US history that took human life and had disastrous affects to aquatic life in the gulf. Overall, those in favor of nuclear energy believe that the already notable negative environmental effects of fossil fuels outweigh any reasoning against nuclear energy.[4]

[3] Debra A. Miller, *Nuclear Energy* (Farmington Hills: Greenhaven Press, 2010), 22-24.
[4] Miller, *Nuclear Energy*, 26-29.

For those who believe the opposite, they view nuclear energy with a wary eye. In particular, they believe that no matter the safety regulations or the improvements in nuclear plant structure, a nuclear energy disaster is inevitable. Rose Kivi, an author that has written on nuclear energy disasters, stated this, "Safety measures do not account for the unforeseen or for human error. … It is not possible to fully know all of the harmful effects that resulted from these disasters since radiation exposers to humans, animals and the environment can have many long-term effects."[5] This quote from Rose Kivi dictates how nuclear energy disasters are long term and cannot simply be fixed through safety regulations. Still, the proponents of nuclear energy state that is a better option to fossil fuels. However, those against nuclear energy acknowledge that there is a need for an alternative source of energy compared to fossil fuels, but it is clear that nuclear power is too dangerous to be a positive solution to our global warming and sustainable energy issues.[6]

Most of the population is knowledgeable about the Chernobyl Nuclear Plant incident in 1986 that created miles of radioactive wasteland in what is present day Ukraine and the Fukushima Daiichi nuclear disaster in Japan in 2011. These two disasters are the worst on record but are not the only disasters this plant has seen. In 1979, there was nuclear plant disaster at the Three-Mile Island Plant in Pennsylvania. This crystalizing incident began the implementation of strict environmental and structural regulations for nuclear power plants in the US. This paper will first focus on the this anti-nuclear activism steaming from the 1970s, but will then shift onto the case study of the Tyrone Energy Park in Wisconsin.

[5] Ibid., 41.

[6] Ibid., 51.

The 1973 Global Energy Crisis and Nuclear Power

For the purpose of the paper, the discussion of the 1970s era will be looked through an economic and environmental lens regarding nuclear power. Historians and others that studied this era have noted a change in public discourse about nuclear power during this time. Historically, there was major citizen activism within capitalistic and democratic countries. It is important to note the difference of citizen movements in the late 1950s and '60s, to the movements of the 1970s. Many movements before 1970 can be best described as civic mobilization against disadvantage social groups based on race, class, and gender. However, there was a critical and notable shift of civic activism against the impact of modern industries. It became a part of everyday discourse that pollution of our air and water affected everyone, which was not common discourse in the 1950s and '60s; during these eras, big industries were overall trusted with the well-being of the consumers and our environment, not one's trying to gain a 'quick buck'.[7]

With the first Earth Day founded in the US in April of 1970 and the following global energy crisis in 1973, the world was attempting to find a resource that would provide for the ever-growing economies of our first world countries but that would also not negatively impact our environment. A key issue in 1973 was the heightened prices of Arab oil prices, which began the search for different forms of source of energy.[8] Nuclear power, with the improvement of technology, became top priority in many industrialized countries around the globe. Coming out of the cold war, the discussion of nuclear energy quickly changed for many in the public – and

[7] Christian Joppke, "Social Movements During Cycles of Issue Attention: The Decline of the Anti-Nuclear Energy Movements in West Germany and the USA," *British Journal of Sociology* 42, no. 1 (March 1991): 45.

[8] Ibid., 45-46.

for many governments – to a fear of nuclear arms. The first Earth Day carried dual significance regarding this matter. Specifically, it was aimed to bring greater attention to our world's environment, but to also to grow upon the fear of nuclear arms and the disastrous affect it would have on the earth.[9]

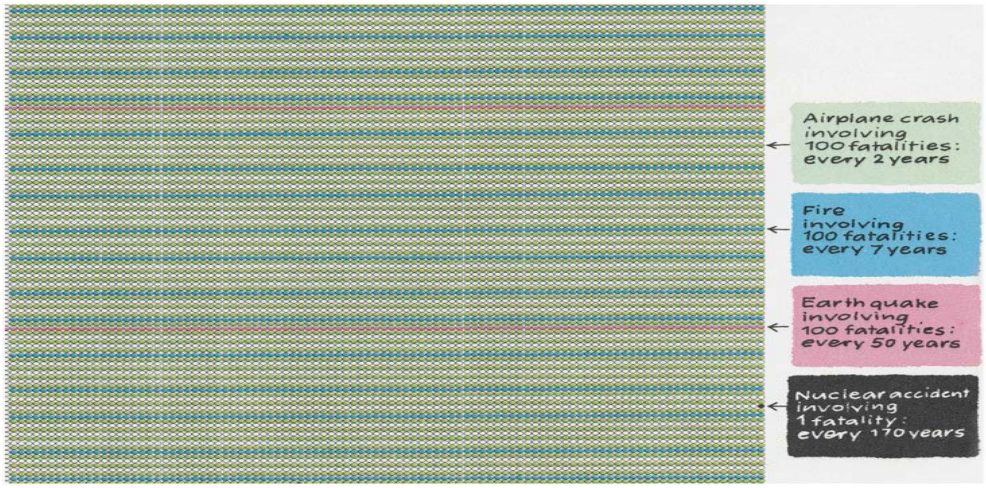
Understanding the global scale of the energy crisis and how other first-world countries viewed nuclear energy, is crucial when explaining the political and public climate within the United States during the 1970s. For the purpose of this paper – including a brief discussion of global nuclear economics – global research will solely focus on Germany. However, other research found that Nova Scotia was dealing with similar issues at this time.

In Germany, between the years of 1973 and 1987, nuclear power was of utmost discourse in terms of the government but especially within one group especially. The Kraftwerk Union Company (KWU) in Germany was a subsidiary of two large industrial companies in Germany and became the sole producer of nuclear reactors during this time. Their goal during this time was to tackle the fears of not only energy companies willing to buy their nuclear products, but to curb the fears of the German people. A text describing the anti-nuclear movement in Germany in the 1970s and '80s was written by Michael Schüring stated, "…as nuclear technology was considered to be a comprehensive solution that affected every aspect of life, it needed to be 'sold' to all of the society." This company therefore created many different forms of rhetoric to reach out to the media and other public services. For instance, the KWU often informed journalists so that they would then inform the public; they would reach out to public officials

[9] Dustin Alexander Greenwalt, "The Promise of Nuclear Anxieties in Earth Day 1970 and the Problem of Quick-Fix Solutions," *Southern Communication Journal* 81, no. 5 (Dec. 2016): 330.

such as politicians and administrators to influence governmental decision making. The KWU would still concentration their efforts within the private realm so they could continue to make products to sell to their customers.[10]

The idea of trust in this industry was a large part of the KWU's campaign. Most importantly – which relates well with the story of the Tyrone Nuclear Plant – the need to gain trust with the public and employers, was to ensure that there would be minimal risks within the designs of these massive reactors. To this, the KWU provided information to the German public that viewed nuclear energy as more of a consumer good rather than a complex industry of splitting minute atoms. This seemed to work in the early 1970s, where most of the general German public was accepting of nuclear energy. However, in the mid-1970s the KWU's campaign began to shift to more visual sources, providing graphics and basic information to the German public so that fear or the feeling of 'not-knowing' would not become an issue when talks of nuclear construction arose.[11] This shift to a visual form of education and understanding began when many environmentalists and common folk – such as farmers, teachers, and lawyers – were



[10] Michael Schüring, "Advertising the Nuclear Venture: The Rhetorical and Visual Public Relation Strategies of the German Nuclear Industry in the 1970s and 1980s," *History and Technology* 29, no. 4 (Dec. 2013): 371-372.

[11] Michael Schüring, *Advertising the Nuclear Venture*, 379.

Figure 1: Picture describing how nuclear energy is less of a risk than earthquakes, fires, and airplane crashes. Source: Michael Schüring, "Advertising the Nuclear Venture: The Rhetorical and Visual Public Relation Strategies of the German Nuclear Industry in the 1970s and 1980s," History and Technology 29, no. 4 (Dec. 2013): 383.

becoming distasteful when any discourse against the benefits of nuclear energy were returned with ignorant responses from the KWU. An example of this is shown in figure one, were the KWU was attempting to show the risks of a nuclear accident in comparison to an earthquake, fire, or airplane crash. Specifically, detailing how nuclear accidents are less of a risk than all other forms of disasters.

To reiterate, understanding how another global power viewed nuclear power is essential to understanding how the United States dealt with the risk involving the use of nuclear power. It is important to note, however, that throughout this previous discussion of Germany, no points made connected nuclear power to a nuclear arms race. When the US public, especially during the late 1960s and the early 1970s, discussed nuclear power, there seemed to be a parallel discussion of nuclear arms.[12]Even within nuclear power discourse in the early 2000s, there was still a fear that the use of nuclear energy will then turn into the creation of nuclear arms. Within Miller's book *Nuclear Energy*, the text states that in relation to nuclear energy and nuclear arms, "The same process used to manufacture low-enriched uranium for nuclear fuel also can be employed for the production of highly enriched uranium for nuclear weapons."[13] Considering this book

[12] Joppke, "Social Movements During Cycles of Issue Attention: The Decline of the Anti-Nuclear Energy Movements in West Germany and the USA," 49.

[13] Miller, *Nuclear Energy*, 49.

was published in 2010, this quote is extremely vital, because it details the relatively recent fears of nuclear power becoming nuclear arms.

Putting the fear of possible nuclear arms to the side, it was evident that the cost of nuclear reactors themselves were greatly increasing after the year 1973, which was precisely the same year that they Tyrone Energy Park was proposed by the NSP. With rising costs came rising construction time. Between the years of 1974 and 1976, construction of nuclear reactors varied, but it was common for the complete construction of these reactors to take over a ten-year timespan. Because of this, starting in 1975, new orders for nuclear reactors or plants around the US began to decline. From an article written by Hultman and Koomey in 2014, they state: "The advent of new scrutiny, public opposition, and regulations no doubt added additional weight to the existing burden; …it is clear that multiple factors created an extremely unfavorable environment for new reactor construction."[14] It is clear from this secondary research that a study on the Tyrone Energy Park provides valuable information in unraveling how a particular nuclear plant site struggled against popular public discourse and citizen activism during the 1970s; once more remembering that no massive nuclear accident has happened within the US before the proposal of this plant.

The Tyrone Energy Park and Its Opposition

The Tyrone Energy Park (TEP) was not a small-scale project. Within the Final Environmental Statement of the Tyrone Energy Park by the US Nuclear Regulatory Commission

[14] Nathan Hultman and Johnathan Koomey, "Three Mile Island: The driver of US nuclear power's decline?," *Bulletin of the Atomic Scientist"* 69, no. 3 (2013): 64.

and by the Office of Nuclear Reactor Regulation, the energy park was proposed not only by the Northern States Power Company, but also in conjunction with three other companies: the Dairyland Power Cooperative, Cooperative Power Association, and the Lake Superior District Power Company. These four companies combined proposed a plant with a "pressurized-water reactor to produce a warranted output of 3411 MWt (thermal megawatts). A steam turbine generator will use this heat to provide 1194 Mwe (net megawatts) of electrical power capacity." To describe this in non-technical language, this plant would produce a 3:1 heat to energy ratio. The proposed TEP was to be located in Dunn Country near Durand, located on the east side of the Chippewa River, where the Red Cedar River joins the Chippewa.[15] The TEP needed a total of 4,600 acres of land; three-hundred and seventy-five acres of those were needed for the primary site where the reactors would be located. Then, 1,134 acres of the total land needed was for transmission lines and other railroad lines going in and out of the plant. [16] The final environmental statement did not detail the exact amount of transmission lines or railroad needed for the extensive project.

Nuclear power, as discussed previously, creates a vast amount of energy. While creating this energy, heat is released. In order to cool down this powerful nuclear fission process and to create steam to power turbines: water is needed. The TEP, and any other nuclear power plant, were, and continued to be, designed near a natural water resource to provide the cooling agent necessary. The Chippewa River was the essential natural water resource for the TEP and would have been the most affected if the NSP were to construct the energy park. In particular, it was

[15] *Final Environment Statement Related to Construction of Tyrone Energy Park,* iii.

[16] NSP to Acquire Land in Wisconsin for Future Plant Site, 30 November 1972. Box 2, Folder 7. Clara Bauer Papers, 1971-1988. Stout Mss 12. Library Learning Center. University of Wisconsin-Stout. Menominee, Wisconsin.

stated within the TEP's final environmental statement that, "four aquatic environments could be affected by the construction and operation of the proposed facility and each of these was included in the preoperational sampling program." This statement also discusses how the Chippewa River is a nutrient rich river that produces high levels of phytoplankton during the warm summer months.[17] For further reference, it is important to understand that the phytoplankton are 'producers' in the ecosystem, meaning they are food for others; so they are quite important to the 'consumers' that feed on them. As previously noted, the nuclear towers creating energy needed cooling from water source. Within the environmental statement draft, the text notes, "of the heat dissipated by the towers, under summer design conditions, about 91% will be by evaporation of water…"[18] Studying these two previous notes, it is evident that the plant planned to use the most natural water resources during the summer months, which is the same period of the year that the phytoplankton of the Chippewa River produce the most.

[17] *Final Environment Statement Related to Construction of Tyrone Energy Park* 1977, 2-14.

[18] Northern States Power Company of Minnesota and Northern States Power Company of Wisconsin, U.S. Nuclear Regulatory Commission, *Final Environment Statement Related to Construction of Tyrone Energy Park* (Springfield: Virginia, 1977), 3-14

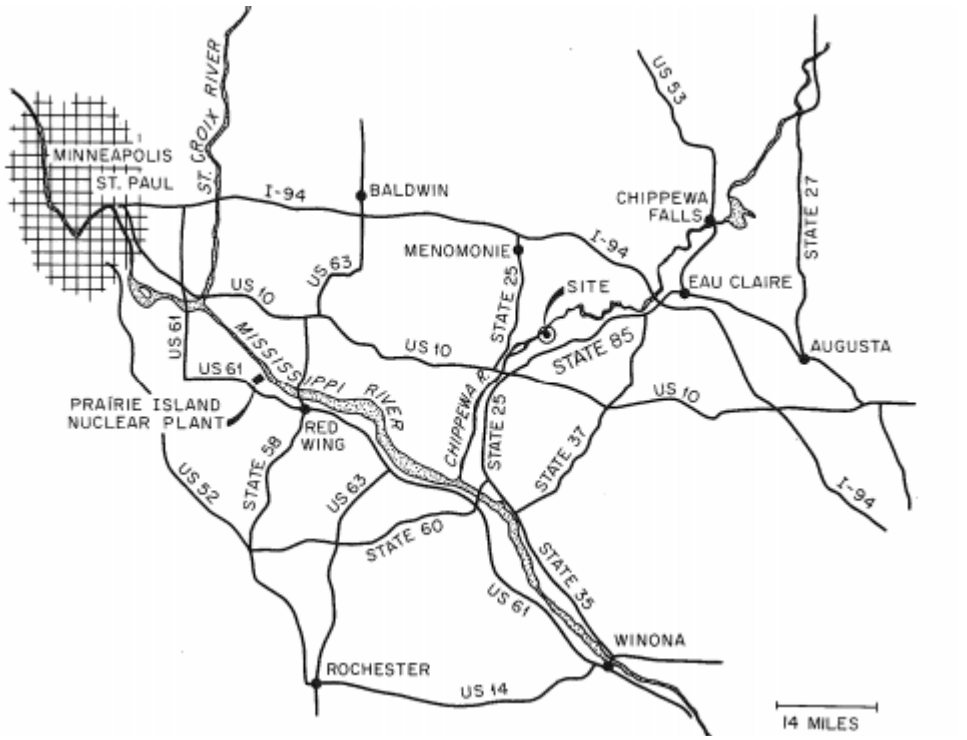


Figure 2: Graphic depicting site location in relation to some surrounding cities and the twin cities in Minnesota. Source: Northern States Power Company of Minnesota and Northern States Power Company of Wisconsin, U.S. Nuclear Regulatory Commission, *Final Environment Statement Related to Construction of Tyrone Energy Park* (Springfield: Virginia, 1977), 2-2.

Besides the number of acres needed for the plant itself and its effects on the aquatic life, the surrounding community would have been affected as well. Specifically, when there is a massive industrial site such as this, other infrastructure must be created to haul materials in and out of the construction site. Railroads and other roads have to be constructed. In the case of the TEP, the 1977 Environmental Statement stated that: "Plant construction will involve some community impacts." If the TEP was to be constructed, it would have displaced fifty-five households in the area.[19] Where their homes – places that most of these people have lived for their whole lives – would be deconstructed and their lands would be used for the energy park.

[19] *Final Environment Statement Related to Construction of Tyrone Energy Park,* iii.

These people's lands were of utmost importance to them, thankfully it was not overly simply to acquire their land.

From information recorded within the boxes titled the *Clara Bauer Papers*, it was discovered that obtaining the rights to this land was actually quite complicated. The Public Service Commission (PSC) was the final 'decision-maker' in this process. In particular, they were the organization that evaluated the initial and final environmental statements that was proposed by the NSP and its three other proprietors. In particular, the environmental statements were proposed by these groups but were actually written by the US Nuclear Regulatory Commission and by the Office of Nuclear Reactor Regulation. These two agencies had the power to create positive or negative discourse about the plant proposal. However, the PSC held the 'ultimate power' in deciding whether or not the TEP was needed for the electrical consumption for the people of the region. The PSC created extensive guidelines to prove a nuclear plant site's necessity, and the NSP would have to make the first steps if they wanted their plant to be built.

In 1972, the NSP began conducting various environmental studies and ecological surveys for the preparation for the TEP site. Samples of air, water, river bottom, natural vegetation, soil, farm crops and milk produced in the area.[20] Tests such as these and other ecological surveys recorded initial radiation levels at the plant site and fifteen miles around it the site. With all of the surveys taken and the discussion for the use of local property for the plant, it took little to no time for opposition to arise. By 1973, Clara Bauer led this core of citizen activism. She was the wife of a famer in the area of the proposed plant site. Along with her son, Harold and his wife

[20] Document discussing NSP Acquiring Land in Wisconsin for Future Plant Site, 30 November 1972. Box 2, Folder 7. Clara Bauer Papers.

Lucille she was also 'in the way' of the NSP's plans: their farmlands were at particular risk if the PSC was to grant permission for the construction of the TEP.

Clara and Lucille Bauer formed the Citizens for Tomorrow, Inc., which began as a small grass-roots organization but then grew into a larger anti-nuclear organization with continuous communication with the Wisconsin State Assembly and other environmental organizations, such as the Northern Thunder Organization. This organization was located in Eau Claire, specifically on S. Barstow Street in Eau Claire's downtown. They worked on environmental issues, which is why they worked along with Clara Bauer in her fight against the construction of the TEP.[21] Along with these organizations, Lucille and Harold Bauer played major roles, as they often sued Northern States Power.

One of the first steps Bauer took was writing a letter from the Citizens for Tomorrow (CFT) in 1973 to the Wisconsin State Assembly discussing the want against the proposed TEP. A letter from Assemblyman Michael P. Early stated the steps the NSP would have to take if they wanted to construct the energy park. He stated, "[The NSP must] obtain permits from the Wisconsin Department of Natural Resources and the Atomic Energy Commission. To obtain this permit, the NSP must collect environmental data for one year. Then the PSC will have eighteen months to render a decision on the proposal."[22] Knowing this from the beginning, Bauer knew that with some work, there was a chance the energy park could be stopped. Bauer and the CFT were already producing information against nuclear energy, denouncing its risks and the

[21] Northern Thunder, Northern Thunder: Who we are (Eau Claire, WI: 1973). Box 1, Folder 23. Clara Bauer Papers.

[22] Document stating the NSP's power to acquire land in Wisconsin for future plant site, 30 November 1972. Box 2, Folder 7. Clara Bauer Papers.

unpopular support felt for the plant in the Dunn County area. From the NSP's initial proposal in 1973, Bauer knew that the NSP made projections of future energy consumption in the Northwestern Wisconsin along with projections for the regions near Minneapolis and St. Paul Minnesota. Therefore, the people of Dunn County, were not the ones requesting the need for more energy. The NSP and their projections made this decision for them.

A short excerpt written by Clara Bauer in the *Eau Claire Leader-Telegram*, she defends the CFT and the farmers in their struggles to retain their land. She stated:

> (The) CFT, was non-existent until Northern States Power Co. (NSP) came trespassing and brazenly pushed the farmers off their beloved land, which by the way, they had bought and paid for with the sweat of their brow. This was performed with the misuse of the inhuman law of eminent domain. NSP did not have the human decency to first prove to the Public Service Commission (PSC) whether or not an electric plant would be needed at Tyrone. Thus it is, people like Mr. Schaff and NSP in their greed for unneeded energy, that is costing these quiet, hard-working, conscientious, dedicated farmers millions of dollars. [23]

Within this quote, it is key to explain the term eminent domain. In a summarized definition, eminent domain gives the local, state, or federal governments the legal right to acquire private property, as long as the public obtains the property for future use. In the case with the TEP, the NSP and the Public Service Commission, which is an agency within the state government, initially allowed the NSP to take local citizen farm land because of this "eminent domain" clause in our government's system. Within a lawsuit between Harold C. Bauer and Carolyn Lucille Bauer v. North State Power Company in 1975, two years after the proposal of the TEP, the Circuit Court in Dunn County stated that the, "…Northern States Power Company, does have the

[23] Clara Bauer, *The Bauer Story: How We Fought for Our Land,* ed. Clara Bauer and Lucille Bauer (Durand, WI: C.H. Bauer, 1986), 176.

right to condemn the land of the plaintiffs…"[24] This was one of the main arguments held by the NSP and the other joint companies. They believed that what they were trying to accomplish through the TEP was 'good' for the public. The "Mr. Schaff" noted within the previous quote, was an Eau Claire City Council member since 1971. However, he was not a farmer, and did not personally understand what it meant to have your land 'stolen' from you. He himself stated:

> With the oil embargo in the early 70's, the blackouts and brownouts we were experiencing in the country, and with the serious problems in Iran and the cutoffof oil from the country, it makes a person wonder how many warning it takes for us to realize that there is a severe shortage of energy. That we better do something about becoming self-sufficient, and one way to accomplish this is to build more power plants in this country and that includes the Tyrone Energy Power Plant.[25]

Including his words here is important since it shows the local division of ideals. Bauer and the CFT admired the work of these farmers and were concerned about the environmental effects of the plant. However, people such as Mr. Schaff, were concerned with the lack of energy in their state and nation at the time and believed nuclear energy was the answer. Though he did not have any actual power in deciding whether eminent domain would be used in the case of the TEP, his opinion was a great example of an ideal held for the construction of this energy park. These two ideals were essentially the two sides of the story. However, Bauer and the CFT continued to produce its case against the NSP.

In December 1973, Bauer discussed that under normal operation conditions the Tyrone Power Plant would release no radioactivity into the air, water, or into the general environment. However, she noted that the plant would not always be operating under 'normal' conditions and

[24] Harold c. Bauer and Carolyn Lucille Bauer v. Northern State Power Company, 92C850 (D.C. Wis. Cir. 1975). Box 2, Folder 7. Clara Bauer Papers.

[25] Clara Bauer, *The Bauer Story: How We Fought for Our Land,* 175.

accidents were prone to happen. Before any large nuclear disasters in the US happened, Bauer discussed how nuclear plants often break down more than fossil fuel plants. In her own quote, she states that: "…if an accident happened and radioactivity is released into the ecosystem, incidences of infant mortality, leukemia, other cancers, will shorten lives, and genetic injuries will sky-rocket around this nuclear plant. If you live within one-hundred miles [where Minneapolis and St. Paul Minnesota are within one-hundred miles] of Tyrone, you would be subjected to its low-level radioactive emissions." She dictated that if an accident would happened, the Tyrone plant would actually not explode, but that the fuel rods – which have often found to be defective – would fail within the plant and discharge radioactive material into the environment, forming a radioactive cloud. This cloud, she states, even if it would only be a small portion [possibly five percent of the total TEP emissions], death or serious radioactive injury would occur to any inhabitants living forty miles in circumference of the plant site.[26] Bauer further discussed how this cloud would not be able to rise high enough into the sky, it would remain low and travel farther without dissipating, affecting life closer to the ground within the one-hundred mile radius previously noted.

Other anti-nuclear groups and activists knew about similar information. Specifically, a newspaper article written by the *Durand Courier-Wedge* in, the Wisconsin United Nuclear Opponents released five-hundred balloons into the air in Stevens Point Wisconsin, where the area was also be threatened by a two reactor nuclear complex. They were released to simulate where the radioactive fission products would be released into the air. The balloons were reported to make their "flight" all the way to the state of Virginia. Continued in the 1973 newspaper

[26] "There is Still Time to Stop this Plant!," 1973 Box 2, Folder 8. Clara Bauer Papers.

article, the text discussed the Koshkonong Alert group, which was an anti-nuclear group that opposed the Koshkonong Nuclear Plant in Fort Atkinson Wisconsin. [27] In general, it is important to note that the TEP was not the only plant that was facing opposition in Wisconsin. The next section will discuss the Koshkonong Nuclear Plant and its impacts, noting various environmental effects in comparison to the TEP.

The Koshkonong Nuclear Plant in Comparison

The Koshkonong Nuclear Plant was to be similar to the TEP but slightly smaller. This plant was to be located near Koshkonong Lake in Jefferson County, which is located in South-central Wisconsin, near Madison at the widening of the Rock River. The Wisconsin Electric Power Company produced the initial proposal of this plant in 1974, but like NSP, this company also joined with other companies, specifically the Wisconsin Electric Power Company coordinated with Wisconsin Power and Light Company, the Wisconsin Public Service Corporation, and the Madison Gas and Electric Company. These four companies proposed a similar two pressurized-water reactor system that would have hopefully began construction in 1978. [28]

This plant though, needed much less land. The site itself would have required 1,190 acres of land. This plant would disturb one-hundred and seven acres of farmland. According to the US Nuclear Regulatory Commission's *Draft Environmental Statement Related to Construction of*

[27] "Wisconsin's Nuclear Opponents", *Durand Courier-Wedge Press,* December 1973. Box 2, Folder 8. Clara Bauer Papers.

[28] Wisconsin Utilities Project, U.S. Nuclear Regulatory Commission, *Draft Environmental Statement Related to Construction of Koshkonong Nuclear Plant Units 1 and 2* (1976), i.

Koshkonong Nuclear Plant from August of 1976 for the plant, the text discussed how the disrupted farmland would cost farmers $27,500 of lost crop income per year if the plant were to be constructed.[29] It was clear that if this plant were to be built, it would significantly affect the local way of life.

In comparison, it was also understood that the NSP knew about the farmland they were disrupting. The *Eau Claire Leader-Telegram* noted an NSP spokesperson in 1973 stating, "…the land is of mediocre agricultural value, and it is sparsely populated…it is not very valuable."[30] This was the NSP view of the land, but Lucille Bauer had her own thoughts about the NSP, "to NSP we are expendable."[31] From these two quotes, it is evident or appropriate to say that the initial attitude of the NSP towards the farmers of the Dunn County was not one of mutual agreement.

Similar to the TEP plan to disrupt the lives of residents of its affected area, the Koshkonong plant also intended to relocate residents. This plant, though smaller, planned to displace fourteen households, four other farming businesses, one sanitary landfill, and a plumbing business. The draft environmental statement for this plant described that the families would be paid for temporary living conditions and would continue to be funded for permanent

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[29] *Draft Environmental Statement Related to Construction of Koshkonong Nuclear Plant Units 1 and 2,* 4-3.

[30] "Farmers Opposing NSP Durand Site", *Eau Claire Leader-Telegram*, March, 1975. Box 2, Folder 6. Clara Bauer Papers.

[31] "Thoughts from Lucille Bauer", *Minneapolis Tribune,* NA. Box 9, Folder 10. Clara Bauer Papers.

housing.[32] So, no matter where or how small or large a plant site was, both these environmental statements concluded a significant portion of displaced individuals.

However, even if these people moved off the proposed nuclear plant site, there would have still been a chance their families would have been affected by nuclear radiation pollution. Noted within the Koshkonong Environmental Statement: "radioactive effluents released to the atmosphere from the Koshkonong facility will result in small radiation doses to the public."[33]

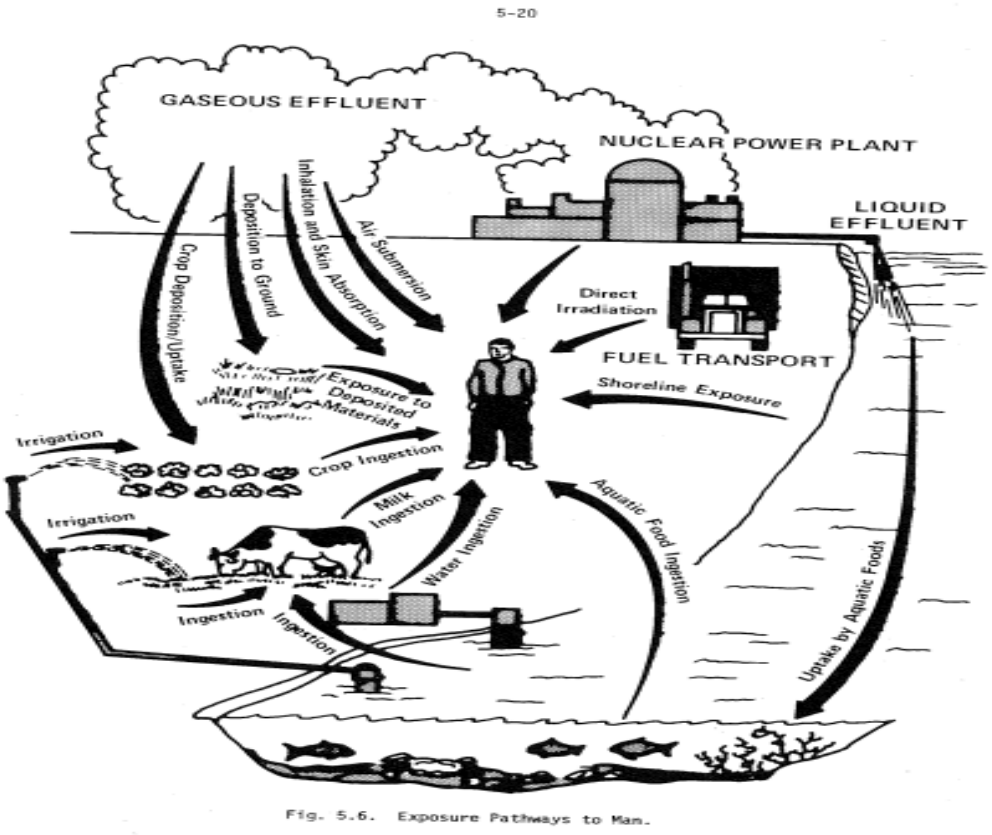

Figure 3: Nuclear energy pollution and how it affects humans and the environment. Source: Wisconsin Utilities Project, U.S. Nuclear Regulatory Commission, Draft Environmental Statement Related to Construction of Koshkonong Nuclear Plant Units 1 and 2 (1976), 5-20.

[32] *Draft Environmental Statement Related to Construction of Koshkonong Nuclear Plant Units 1 and 2*, 4-2.

[33] *Draft Environmental Statement Related to Construction of Koshkonong Nuclear Plant Units 1 and 2*, 5-19.

Furthermore, no matter where the plant was proposed to be located, it would have a negative effect on the surrounding humans, mammals, and aquatic life. Seen in figure 3, from the same environmental draft, this diagram shows nuclear energy pollution effect on 'man', but also depicts how the whole system is affected.

Figure three displays how the aquatic life would be affected if this nuclear plant began operations. More specifically, the Koshkonong Nuclear Plant planned to dredge out a canal for the plant's cooling system and planned to construct bridges over streams as off-site infrastructure to gain access to the plant. These bridges, if constructed, were designed to change the stream's sedimentary landscape, affect benthos life – small organisms found on or in the bottom sediments of a water resource – algae, and fish populations.[34] If the channel were constructed as planned, it would also displace solid soils during the dredging process. The displaced soils would then be deposited into Lake Koshkonong, with a larger amount of displaced earth being placed close to where the channel was being dredged.

The draft environmental statement noted, "This concentration, if it were persistent, would be enough to kill zooplankton, interfere with photosynthesis, decrease oxygen concentration, and affect the feeding and breeding of fish in the lake." However, the text stated how these affects would be temporary, but it also stated that storms and waves would draw lake sediment towards the channel. This would then cause follow-up dredging of the channel, resulting in the previous mentioned aquatic harm. [35] Comparing this nuclear plant to the TEP is quite useful. Not only were both these plants proposed in Wisconsin during the mid-nineteen-seventies, both of their environmental statements outlined negative environmental effects if the plants were to be

[34] *Draft Environmental Statement Related to Construction of Koshkonong Nuclear Plant Units 1 and 2*, 4-9.

[35] *Draft Environmental Statement Related to Construction of Koshkonong Nuclear Plant Units 1 and 2, 4-9.*

constructed. This plant was part of anti-nuclear discourse, specifically noted to be discussed within the *Durand Courier-Wedge*, and is another example of nuclear plant that would do more environmental and economic harm than good. With these negative effects noted in relation to nuclear energy, Clara Bauer and the CFT would attack the nuclear industry by providing information about alternative forms of energy that were often cleaner and more efficient than nuclear energy.

Other Alternatives than Nuclear Fission

In 1974, the Citizens for Tomorrow and the United Nuclear Opponent created a detailed outline for a speech against nuclear power. Within this outline, it details many alternative avenues to produce energy instead of using nuclear power. In a section of the outline titled 'Are Nuclear Power Plants Safe?" The text states:

> The Atomic Energy Commission report estimated the lethal effects and damages that would result from an escape of 50% of the radiation from a 200 Megawatt reactor, which is 1/5 the size of the Reactors at Tyrone, are about 3,400 people killed in a fifteen mile radius, 43,000 people injured in a forty-five mile radius, and 150,000 square miles of radial land contamination. An overall seven billion dollar property damage.[36]

This excerpt connects back to worries that Clara Bauer had, particularly connecting to her discussion of a possible radioactive cloud that would harm or kill life close to the ground. The quote shows how severe a small radiation leak into the environment would be. The text states – which is information presented from the Atomic Energy commission – that even a small leak

[36] Nuclear Power Speech, *Citizens For Tomorrow and United Nuclear Opponent*, 1974. Box 2, Folder 13. Clara Bauer Papers.

would spread and eventually consume hundreds of thousands of miles and injure tens of thousands of people in under a fifty-mile radius. Later in this speech's outline, the information dictates how there has been previous nuclear accidents. The text details how reactor accident in Idaho in 1961, killed three men. Further information detailed how the three nuclear plant workers adjusted the reactor rods – that control the nuclear reaction – too far upwards, which caused a meltdown releasing radiation and killing them. [37] This is important to note, because this accident with the reactor rods, is exactly what Clara Bauer feared would happen at the TEP.

The text described two more accident cases, one being in Windscale, England. In 1957, radiation escaped during an accident and agricultural products in a two-hundred square mile area of the plant needed to be confiscated in order to stop any harmful food making its way to consumers. Secondly, an accident in October 1966 at the Enrico Fermi Plant – near Detroit, Michigan – where radiation almost caused the evacuation of all of the city's entire population.[38] This accident was written about in a 1975 book, *We Almost Lost Detroit*, a year after this outlined was produce, where the author, John G. Fuller, described the Fermi Plant accident as one of the many plants that confirmed how sensitive this plants are to human error.[39] Furthermore, after this speech outline dictated these past accidents, it then went on to detail other sources of energy.

The outline specifically described five other sources of power. Information did, however, note that not all of these sources of energy are available in the 1970s, but each alternative was

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[37] Ibid.

[38] Nuclear Power Speech, *Citizens For Tomorrow and United Nuclear Opponent*, 1974. Box 2, Folder 13. Clara Bauer Papers.

[39] Raymond L. Hough, "We Almost Lost Detroit," *LJ: Library Journal* 100 no. 17 (Oct. 1975): 1808-1809.

also noted to be less harmful compared to nuclear energy. For these sources of energy, the outline states roughly what year (or years) these alternative types of technology would be available for use. Technology that was available to them in 1974 was limited to burning garbage, trash, and Methane Gas Generation. The text describes how European countries have been doing all of these for years, and how burning trash, garbage, human and animal wastes would produce one half of all the electricity that is not currently being generated. Methane Gas Generation, which is made from decomposing organic wastes, would produce one and a half times the amount of natural gas annually consumed in 1974 by digesting all organic wastes produced in the US. The remains of this process would go to organic fertilizers. Fuel Cells was the last form of technology available to them in 1974. The use of fuel cells uses a process of converting fuel gas and oxygen into electricity. This process was noted to produce little pollution compared to other forms of electricity production, such as nuclear power.[40]

Other forms of that became available in the late 1970s and the early 1980s were solar energy and magnethodydrodynamics. Solar Energy was small scale in 1974, but their was hopes for it to become larger and more efficient in the 1990s. Magnethohydrodynamics or MHD makes electricity by substituting a hot flowing ionized gas for rotating copper coils in an electric generator, making it one and half times more efficient than a fossil fuel plant when combined with a regular boiler-and-turbine generator. Lastly, the text describes that by the early 2000s the fusion of hydrogen atoms would be possible. This process was reported in the text to be a much more advanced form of fusion that would produce much less pollution than the nuclear energy production used in the proposed TEP. At the end of this speech, Clara Bauer herself noted how

[40] Nuclear Power Speech, *Citizens For Tomorrow and United Nuclear Opponent*, 1974. Box 2, Folder 13. Clara Bauer Papers.

much passion she felt in her discussion against nuclear power: “We do not promise a bed of roses but we think we are being more realistic than utilities who say atomic power is the answer…” This speech was crucial to include in this paper, since it summarized or group together many of their major arguments into one source. That is primarily why it is referenced so frequently throughout this text. Furthermore, viewing this outline helps understand the issues that the Public Service Commission took into consideration as they made a key decision in 1978.

The Public Service Commission Decision

In the years leading up to the 1978 Public Service Commission decision, the Citizens for Tomorrow and Clara Bauer had made a strong case for themselves. In particular, this paper has noted numerous explanations of opposition against the plant, such as the plant’s numerous environmental risks and the damages it would have to the local community, specifically affecting the farming population in the Dunn County area. The following information will explain the decision, but more importantly, the reactions to the decision by the opposition and the NSP.

In late February 1978, the PSC halted the spending and any forms of construction for the TEP. The PSC notified the NSP and the Lake Superior District Power Company that it had made a unanimous decision against the plant. Information presented in the *St. Paul Pioneer-Press* continued to describe exactly why the plant spending was suspended. The article then detailed how Wisconsin law dictates against a Minnesota company attempting to form an electrical power business in Wisconsin. In particular, this law does not rule against only Minnesota companies, but, “under the law, no out-of-state corporation can operate or manage a power plant in Wisconsin.” This same article from the *St. Paul Pioneer-Press* continued, were the text displayed

the feeling of rejoice felt by the citizen activist groups working against the TEP. Will Fantle, a spokesperson for the Northern Thunder Organization, stated this in relation to the ruling: "We are really happy about the PSC ruling, it's great for Western Wisconsin residents, for their health and safety, and it's good to see law enforced." To explain, Fantle was referencing a 1907 law that prohibits a foreign corporation from owning an electrical power plant and power transmission lines in Wisconsin. At this point, the article continued with quotes from Fantle, explaining how he believed the plant and its plans were now "dead." This article then described the main reason for the plant's denial. The PSC ruled that the NSP was a "foreign' corporatio. In this case, the Minnesota Northern States Power Company was 'foreign' because it was an out of state company and did not have the right to build the power plant or any transmission lines in Wisconsin if they were to own them.[41] Even though spokesperson Fantle believed that the plant was "dead" from there on out, he would have to rethink those words in the days to come.

Within March 1978, about a month after the previously quoted news article, efforts made by the CFT and the Northern Thunder Organization were diminishing. The PSC lifted the spending ban on the NSP within this month of March. This ban was in place because it was a "foreign" corporation, but the Minnesota Northern States Power Company quickly transferred its ownership over to the Northern States Power Company of Wisconsin. Under this new plan, two-thirds of the Tyrone Energy Park would be under the ownership of the Wisconsin NSP and the other one-third would be under ownership of the Lake Superior District Power Company and two other utility cooperatives.[42]

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[41] "CAUSE Continues to Oppose Tyrone Plant", *St. Paul Pioneer-Press*, January 11, 1978. Box 6, Folder 6. Clara Bauer Papers.

[42] "Tyrone spending ban to be lifted Wednesday", *Eau Claire Leader-Telegram*, March 24, 1978. Box 6, Folder 6. Clara Bauer Papers.

This action taken by the NSP was smart and severely worried the oppositionist groups working against them. In an article written within the *Independent Nuclear Opinion* in the Spring of 1978, words from Lucille Bauer herself describe this feeling: "…but with a few twists and turns, NSP was again able to put a few more officials on the payroll…"[43] Though this quote is bias and no one was actually added to any sort of payroll, it depicts the extreme resentment felt by these farmers. However, it was not only Lucille and the farmers that were upset with the decision.

Attorney General Bronson La Follette of Wisconsin fought against nuclear plants and their ideals. In the wake of the 1978 events with the NSP losing and regaining the rights to construct the plant, La Follette had this to say within a *Madison Capital Times* newspaper article, "…state governments could face an "enormous" burden as a result of a nuclear power plant accident within their boundaries." He goes on to detail how prices of welfare, social services, medical assistance, and unemployment benefits would "skyrocket" if the state were forced to deal with such an accident. Also within this text, Lafollette makes reference to the Price-Anderson Act, which was passed in 1957 and dictated liability of all non-military nuclear power plants. Lafollette argued that the act was not protecting the liability of state citizens. In particular, he stated, "The Price-Anderson Act is a direct subsidy to the nuclear industry at the expense of those citizens that live close to nuclear plants."[44] In general, La Follette did not want the NSP to build the plant, since he believed there was too much risk placed on the health and the financials of the people of Wisconsin. This was crucial for the opposition, having the attorney general, one

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[43] "Tyrone Take Over", *Independent Nuclear Opinion*, Spring, 1978. Box 9, Folder 10. Clara Bauer Papers.

[44] "La Follette asks court to reject U.S. law curbing nuclear liability", *The Capital Times*, March, 1978. Box 6, Folder 5. Clara Bauer Papers.

of the main legal advisors in a state government, of the state supporting their cause only strengthened their case.

Around the same time as the above articles were published in surrounding local newspapers, the NSP hit another "bump-in-the-road." Specifically as the Wisconsin NSP took over the majority of the ownership of the TEP, the PSC ordered a new application be made and submitted to them from the Wisconsin NSP because of their recently gained ownership. This was disastrous to their plans because it gave the NSP a chance to fix it's mistake when they over looked the 'foreign' corporation clause in the 1907 law. The Minnesota NSP and its Wisconsin affiliates proposed this plant in 1973, but by 1978, the PSC required them to redo a large portion of the proposal process, which would take even more time. In May of 1978, an Eau Claire *Leader-Telegram* news article discussed the NSP and their request to reverse the 'redo' ruling. Within the article, the NSP accused the PSC of illegally delaying the construction of the plant, stating, "…alleged the commission was guilty on "numerous irregularities" in handling the Tyrone application, and that they commission has denied the company due process."[45] This "back-and-forth" legal squabbling was extremely essential. Not only had the CFT and other activist groups delayed the plant for five years through presenting anti-nuclear information to the state and federal congresses and to the PSC, they delayed it further as the PSC required a change of ownership and new proposal documentation.

As the NSP attempted to regain lost ground, opponents of the plant continued to stand in their way. By July 1978, there was a large movement to unite further against the NSP. The Badger Safe Energy Alliance, located in Durnad, was attempting to gather opposition to final

[45] "NSP asks court to reverse ruling", *Eau Claire Leader-Telegram*, May 31, 1978. Box 6, Folder 5. Clara Bauer Papers.

shut down the TEP for good. The Eau Claire *Leader-Telegram* published words from this group, where they stated: "we will mount a comprehensive legal campaign against construction of the facility."[46] This unity came in regard to the farmer's land, which was still under the ownership of the power plant companies. To restate, the power plant companies had possession of their land since 1974 because of eminent domain – during this time farmers were not able to farm on their land – but were continuously delayed when they wished to begin construction. The Badger Safe Energy Alliance (BSEA) wished to intervene in the appeal made by the NSP to the PSC, wanting to ensure further delay of the plant's construction. However, not everyone in the state of Wisconsin had this mindset.

In January 1979, Wisconsin's political leadership changed. The November '78 gubernatorial election made Lee S. Dreyfus as the new governor of Wisconsin. The CFT wasted no time and quickly acquainted themselves with the new governor. Specifically, in a letter written to the governor in February of the election year, the organization hoped to 'recruit' a new member to their oppositionist 'team'. This was not easy, as Governor Dreyfus believed that constructing the TEP would provide jobs and would be an answer to the energy crisis. Within this letter, the CFT urged Dreyfus to change his mind. They informed him that many people within the Dunn county area and all throughout the state of Wisconsin are extremely concerned about the potential hazards of nuclear energy and the pollution it would create. An excerpt from this letter states: "we do not like the thought of the possibility of being the few who may have to suffer for the majority who may or may not <u>need</u> electricity." The end of the letter discusses how

[46] "Tyrone opponents unite", *Eau Claire Leader-Telegram*, July 26, 1978. Box 6, Folder 5. Clara Bauer Papers.

they are people of the Dunn County area, and how they know the people of the area and they know what they need. Specifically, they do not need the Tyrone Energy Park.[47]

The Three-Mile Island Catalyst and the Final Case Decision

As the pressure to promote the construction of TEP mounted on Governor Dreyfus, the event on March 28t, 1979 made his decision to support nuclear power extremely difficult, as the Three-Mile Island Power Plant in Pennsylvania experienced a partial meltdown. This meltdown was the result of human error; the employees that caused the meltdown were reported to be poorly trained, and their failure lead to a large amount of nuclear reactor coolant to escape and allowed the release of radioactive gases and radioactive iodine into the environment.[48] As stated throughout this paper, this was the main fear of Bauer and the CFT. They understood that no matter the safety regulations and structural improvements provided for a nuclear plant, nothing could plan for potential human error.

With the first major nuclear power plant incident in the US – and with continued opposition against the TEP – the NSP's final chance to begin construction of the power plant came down to a 1980 court decision made in Dunn County. This case file marked the plaintiffs as Harold and Lucille Bauer and the defendants as the Wisconsin Northern States Power Company. Within the case suit, the court noted that judge was under judicial oath, and specifically stated: "It is implicit in the oath that prior to rendering and legal decision, the judge will use keen legal intellect, sound legal analysis, and a proper application of the laws as they

[47] "Letter to Governor Dreyfus from Clara Bauer", *Citizens For Tomorrow*, Durand, Feb. 1974. Box 6, Folder 5. Clara Bauer Papers.

[48] Hultman and Koomey, 66.

apply to the facts." Furthermore, the court wanted to ensure the legality of the court, detailing that no sympathy would be used against the defendants case if the decision may lead to hardship for the plaintiffs. As the court articulated its decision, it noted that the NSP had no real right to construct the power plant until they could prove that it was in the necessary and interest of the public. On the last page of this case file, it discussed that the initial decision made by the PSC to allow the condemnation of the farmland may not be overturned, but it also notes, "at this time the Northern States Power Company has abandoned its plans for the nuclear plant…" This was the initial decision in 1980, which ruled in favor of the Bauer's.[49]

This case was then sent to an appellant court where the found in favor of the plaintiffs again, were the court again denied the NSP construction of the TEP. However, they upheld in favor of the defendants and concluded that the NSP would still own the farmland of Harold and Lucille Bauer that was condemned in 1974. Their fight for the land continued into 1983. On the part of continued opposition against the NSP after the decision, demonstrations such as picketing done in 1982 by Badger Safe Energy Alliance members – figure 4 shown below – continued to remind "everyone" that the farmland should return to its previous owners.[50] Finally, in a proposed settlement agreement between Harold and Lucille Bauer in the summer of 1982, the NSP agreed to return portions of their farmland. Within this agreement, the NSP released or discharged all rental payments the Bauer's would have made to their land during the time their land was condemned, understanding that they Bauer's did not work or primarily live on the land ceded from them during their extensive fight.

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[49] Harold c. Bauer and Carolyn Lucille Bauer v. Northern State Power Company, (D.C. Wis. Cir. 1980). Box 9, Folder 11. Clara Bauer Papers.

[50] "Tyrone land-grab", Durnad *Courier-Wedge*, January, 1982. Box 9, Folder 10. Clara Bauer Papers.

Figure 4: Protestors picketing against the NSP in regards to gaining the Bauer's farmland back. Source: Tyrone land-grab, Durnad Courier-Wedge, January, 1982. Box 9, Folder 10. Clara Bauer Papers.

The settlement also noted that the land they have condemned may once again be used again for agricultural purposes such as grazing, cultivation, and tree planting.[51] Ultimately, in 1983, the Lucille and Harold Bauer retained one-hundred and thirty-four acres of their land. A newspaper article from the *St. Paul Pioneer-Press*, Lucille Bauer expressed her feeling towards the entire process: "When the Dunn County Court made the decision our land was NSP property, we didn't accept it. We tried to take it to the Supreme Court, but they wouldn't listen."[52] Lucille felt this case was a personal attack to her and to the hard-working farmers of the Dunn County area.

[51] "Proposed Settlement Agreement and Mutual Release Document", Northern States Power and Lucille and Harold Bauer, June 15, 1982. Box 9, Folder 13. Clara Bauer Papers.

[52] "Pact with NSP set: Durand pair keeps farm", *St. Paul Pioneer-Press*, March 27, 1983. Box 9, Folder 13. Clara Bauer Papers.

Conclusion and Recent Data

This case encompassed a ten-year battle of citizen activism against the nuclear industry, more specifically the Tyrone Energy Park. It was one of the first victories for the average citizen in the 1970's. This legal battle was complicated and challenging. Because this company supplied an inelastic good for society – meaning a good, in this case electricity, that is essential to a society's way of life, were people will buy the good no matter how expensive it becomes – siding with or against nuclear energy was not a simply decision. Choosing to view nuclear power as risky and accident-prone, or as an exceptional power source that could fuel the country, were the two generalized "sides" of this case. Situations such as the oil embargo that caused the energy crisis of 1973 and the fear of nuclear "anything" steaming from the Cold War, and the anti-nuclear opposition rising in Germany, it was clear that the nuclear industry would face challenges in any nuclear power plant proposal. In an article published in 2014 by the Bulletin of the Atomic Scientists, the Three-Mile Island incident did indeed solidified the fears of many anti-nuclear activists during that time. However, recently discovered research shows, as noted previously within this paper, "some plants already under construction experienced delayed construction times. But these trends were already in progress before the [Three-Mile Island] accident, with plant costs rising and completion rates slowing in the second half of the 1970s."[53] Even with this new scientific data, they did not have the value of hindsight in 1973.

From extensive research on this case, it is clear that the efforts made by citizen activist groups such as Citizens for Tomorrow, the Northern Thunder Organization, and the Badger State Energy Alliance won through protest and legal delay. Understanding or wondering what kind of

[53] Hultman and Koomey, "Three-Mile Island," 64-65.

physical state the area of Western Wisconsin would be in today if the TEP would have been constructed. Even thinking nationally, and pondering how would the rest of the country could have formed if these "average" citizens would not have made such strong opposition against the TEP. Fortunately, because this plant was denied, we do not have to answer these questions. The denial of this plant was the direct result of local citizen and organizational opposition against the NSP and its contingencies. Without them, the power to construct the TEP and to condemn more local citizen land would have remained with the NSP. Even though the Bauer's stopped the plant, they were not able to retain all of their lands. As a historian, accepting this small loss is an unfortunate necessity. This case was part of a larger global issue, were in a world where energy was becoming scarce and quick decisions needed to be made, it was unclear which way the world's governments would turn. Thankfully, oppositional groups raised important risks about nuclear energy throughout the 1970s and nuclear plant sites such as the TEP were not constructed.

Works Cited

Primary Sources

Bauer, Clara. *The Bauer Story: How We Fought for Our Land*, ed. Clara Bauer and Lucille Bauer (Durand, WI: C.H. Bauer, 1986).

Clara Bauer Papers, 1971-1988, Stout Mss 12. Wisconsin Historical Society. Records housed in Library Learning Center, University of Wisconsin-Stout. Menominee, Wisconsin.

Hough, Raymond L. "We Almost Lost Detroit," *LJ: Library Journal* 100, no. 17 (Oct. 1975): 1808.

Northern States Power Company of Minnesota and Northern States Power Company of Wisconsin, U.S. Nuclear Regulatory Commission, *Final Environment Statement Related to Construction of Tyrone Energy Park*. Document no. 50/484. Virginia, 1977.

Wisconsin Utilities Project, U.S. Nuclear Regulatory Commission, *Draft Environmental Statement Related to Construction of Koshkonong Nuclear Plant Units 1 and 2*. Document no. 50/502 and 50/503. NA, 1976.

Secondary Sources

Greenwalt, Alexander Dustin, "The Promise of Nuclear Anxieties in Earth Day 1970 and the Problem of Quick-Fix Solutions," *Southern Communication Journal* 81, no. 5 (Dec. 2016): 330.

Hultman, Nathan and Koomey, Johnathan, "Three Mile Island: The Driver of US Nuclear Power's Decline?," *Bulletin of the Atomic Scientists* 69, no. 3 (2013): 63-70.

Joppke, Christian. "Social Movements During Cycles of Issue Attention: The Decline of the Anti-Nuclear Energy Movements in West Germany and the USA," *British Journal of Sociology* 42, no. 1 (March 1991): 44-60.

Miller, Debra A. *Nuclear Energy*. Michigan: Greenhaven Press, 2010

"The Comprehensive Plan for the Town of Peru", Town Hall Board of Peru, last modified December 1, 2007, accessed Nov. 1, 2016, http://www.co.dunn.wi.us/vertical/Sites/%7BD750D8EC- F485-41AF-8057-2CE69E2B175A%7D/uploads/town_of_peru.