Exhibit No.: 37
Issue: Dismantlement Costs
Witness: Christopher "Chris" Robert Rogers
Type of Exhibit: Direct Testimony
Sponsoring Party: KCP&L Greater Missouri Operations Company
Case No.: ER-2016-0156
Date Testimony Prepared: February 23, 2016

MISSOURI PUBLIC SERVICE COMMISSION

CASE NO.: ER-2016-0156

DIRECT TESTIMONY

OF

CHRISTOPHER "CHRIS" ROBERT ROGERS

ON BEHALF OF

KCP&L GREATER MISSOURI OPERATIONS COMPANY

Kansas City, Missouri
February 2016

DIRECT TESTIMONY

OF

CHRISTOPHER "CHRIS" ROBERT ROGERS

Case No. ER-2016-0156

Q: Please state your name and business address.

A: My name is Christopher "Chris" Robert Rogers and my business address is Sega, Inc., 16041 Foster Street, Overland Park, Kansas 66085.

Q: On whose behalf are you testifying?

A: I am testifying on behalf of KCP&L Greater Missouri Operations Company ("GMO" or the "Company").

Q: What is the purpose of your testimony?

A: The purpose of my testimony is to present and support the report attached to my testimony as Schedule CRR-2 which separately addresses the near-term costs of retirement and the potential future costs for dismantlement of GMO's fossil-fueled electric generating units. All costs are presented in 2015 dollars as if incurred over night. No timeline for retirement or dismantlement was considered in this study. As further described later, certain activities are required by permit or regulation to be performed upon retirement of a unit and their resulting costs would be incurred immediately at retirement.

Q: Please describe your educational background, professional training and experience.

A: Since graduating from Kansas State University with a Bachelor of Science in Mechanical Engineering, I have practiced engineering, principally in the power industry, for more than 40 years. During the first decade of my career, I performed design, construction

contracting, scheduling, and resident construction management services for new coal-fired electric generating stations with a nationally-recognized architect/engineer firm in Kansas City. During this interval I also completed a Master of Science in Civil Engineering specializing in construction management from the University of Missouri-Columbia.

From 1983 through 1986 I served as the Manager of Generating Facilities on the staff of the Missouri Public Service Commission ("Commission" or "MPSC") and participated in several major rate cases, including the AmerenUE Callaway Nuclear Plant and KCP&L Wolf Creek Nuclear Plant rate cases before the MPSC. Later while employed as a consultant, I provided testimony on behalf of Aquila, Inc. in the South Harper Generating Facility certification case before the MPSC. I have also testified before the Hawaii Public Utilities Commission on behalf of the Hawaii State Consumer Advocate.

I am currently an employee-owner and Vice President of Sega, Inc., ("Sega") an engineering and technical services firm located in Overland Park, Kansas. Among other duties, I provide consulting and project management services for Sega's electric power generating clients. Since joining Sega in 1994, I have worked on many projects for KCP&L and our other electric utility clients. Sega has provided engineering services for numerous plant betterment and new capacity projects for KCP&L's generation stations.

In 2012, I provided pre-filed testimony in support of KCP&L before the Kansas Corporation Commission in Docket No. 12-KCPE-764-RTS regarding the near term costs of retirement and the potential future costs for dismantlement of the Company's

fossil-fueled electric generating units. In 2014, I also provided pre-filed testimony for KCP&L before the MPSC in Case No. ER-2014-0370 on this issue.

Q: Do you hold any professional licenses?

A: Yes. I am a licensed professional engineer in the State of Missouri (License No. 21087) and 12 other states. I also hold a Certificate of Record from the National Council of Examiners for Engineering and Surveying (No. 19249).

Q: Have you prepared an appendix that describes your training, licenses and power industry experience?

A: Yes. My professional qualifications are provided in Schedule CRR-1.

Q: Have you previously testified in a proceeding before the MPSC or before any other utility regulatory agency?

A: Yes, I have previously testified before the MPSC, the Public Utility Commission of the State of Hawaii and the Kansas Corporation Commission. The subject matter and references for the cases in which I participated are provided at the back of Schedule CRR-1.

SUMMARY

Q: Would you briefly describe the retirement and dismantlement costs developed for GMO's non-nuclear generating units?

A: Sega was retained by GMO to study the cost of decommissioning GMO's non-nuclear generating units. Decommissioning is the planned and orderly retirement of a generating unit and the dismantlement and reclamation of the site. The term *decommissioning* includes both retirement and dismantlement activities. Upon retirement from service, a generating unit may either be rendered safe and stored almost indefinitely through on-

going maintenance and security measures or it can be dismantled completely and the site reclaimed for other uses. Based upon Sega's experience in the electric generation industry at large and our familiarity with GMO's generating fleet, Sega developed an opinion of the probable costs for GMO to retire each of its fossil-fueled generating units. Costs for dismantlement were also developed separately for each unit.

Q: Please summarize retirement of an electric generating unit.

A: Retirement, as used in this study, refers to the planned, orderly and safe shutdown and removal from service of an electric generating unit, and assumes that the unit will not be used for service again. No actions will be taken to preserve the unit or any of its components for reuse. Retirement activities are specific to each unit and to the common facilities at sites with multiple generating units. Common site facilities are presumed to remain in service until the last unit on that site is retired.

Approximately three to six months before initiating retirement, a specific retirement plan will be prepared for each unit that takes into account the requirements of environmental permits and regulations for removing that unit from service. The retirement plan will also provide for necessary safety and security measures during retirement of the unit and for the time period from retirement until dismantlement.

First, the unit is rendered safe by de-energizing it and disconnecting it from providing output to the electric grid. The switchyards at each unit will remain in service, but isolated from the retired facility. Mechanical systems are de-energized as well. Fuel unloading, handling and storage facilities will be cleaned out, as well as all liquids, chemicals, coolants and reagents. Certain activities are required by specific unit permits and/or state or federal regulations to be performed when the unit ceases operations.

These may include closure of ash landfills, removal of river water intakes, and/or removal of fuel oil storage tanks. However, retirement activities do not include asbestos and lead paint abatement measures that are typically handled as ongoing maintenance expenses during the operating life of the unit and continuing if necessary after retirement. More detail is provided on retirement activities in our report, which is Schedule CRR-2.

Q: Please summarize dismantlement of an electric generating unit.

A: Once the unit or facility has been retired and its dismantlement is scheduled, an engineer will be retained to assist with environmental issues and technical details and develop a detailed dismantlement plan. The unit or facility will be characterized and the boundaries for demolition defined to set the scope of the work. A specialty demolition contractor will be hired to perform dismantlement and salvage. Dismantlement as contemplated in this study provides for the orderly removal of the unit's components to maximize safety and scrap value while preventing damage to the surrounding facilities. The assumptions for dismantlement for each of the units and facilities are provided in Schedule CRR-2.

Q: Did you consider salvage value in reaching your opinion of probable dismantlement costs for these units?

A: Yes, the approximate scrap values for iron and steel and non-ferrous metals were tallied for each unit or facility, based upon estimated quantities and averaged current-year scrap prices. These scrap values were listed separately because the scrap metal prices vary considerably, depending on industrial trends, international events and uncontrollable circumstances at the time of the salvage transactions.

Q: What are the results of your study?

A: The opinion of the probable costs for retirement and dismantlement developed by Sega for each of GMO's fossil-fueled units and the common facilities at each plant site are provided below in Table 1. All costs shown are in 2015 dollars as if the activities were performed in the current year and do not account for ownership percentages and jurisdictional allocations. The development of these costs is described and supported by the report in Schedule CRR-2.

In addition, Table 1 also contains a line item for retirement of common facilities at the Jeffery Energy Center (JEC). Sega did not perform a study of the costs for decommissioning the JEC. GMO owns a portion of the JEC, and Westar is the owner and operator of this generating plant. As with the other GMO-owned plants, certain activities are required by specific unit permits and/or state or federal regulations to be performed when the unit ceases operations. In the case of the JEC this includes closure of ash landfills. Since the costs for ash landfill closure are documented by Westar and submitted annually to the Kansas Department of Health and Environment, these costs were included in this Table 1. GMO will certainly have additional retirement costs when JEC is retired, but such costs have not yet been determined.

As shown below in Table 1, there is a significant difference in cost between retiring and dismantling a power plant. The costs to retire all of GMO's non-nuclear generating units and the additional costs for the JEC ash landfill closure at retirement are estimated to be approximately $87.3 million. To dismantle all of GMO's non-nuclear units, I estimate that it would cost an additional $208.3 million, which does not include JEC. Some components could be sold for scrap during dismantlement thereby recovering

an estimated $38.5 million and bringing the estimated Net Terminal Value (cost to dismantle less salvage) for all of GMO's fossil-fueled plants to $169.9 million. This amount does not include JEC.

Table 1 - Opinion of The Probable Costs for Decommissioning GMO's Electric Generating Units

(All cost values in 2015 dollars)

Name	Unit No.	Total Unit Capability[1] MW	First Year in Service	Retirement			Dismantlement		
				Unit Retirement	Activities Required by Permit, Regulation[2], or Agreement[3]	Total Retirement	Dismantlement	Scrap Value[4]	Net Terminal Cost
Sibley	1	49.8	1960	$482,368		$482,368	$6,034,974	$848,154	$5,186,820
	2	47.1	1962	$482,368		$482,368	$6,034,974	$848,154	$5,186,820
	3	364.1	1969	$535,958		$535,958	$16,835,426	$2,757,087	$14,078,339
	Common			$531,710	$13,950,965	$14,482,675	$10,134,174	$1,564,206	$8,569,968
South Harper	1	101.2	2005	$404,885		$404,885	$9,383,425	$358,946	$9,024,479
	2	102.1							
	3	100.0							
Greenwood	1	60.7	1975	$413,021	$471,333	$884,354	$11,063,645	$353,736	$10,709,909
	2	61.7	1975						
	3	63.0	1977						
	4	60.7	1979						
Crossroads	1	75.4	2002	$400,303		$400,303	$11,249,327	$389,486	$10,859,841
	2	77.9							
	3	75.9							
	4	77.8							
KCI	1	0	1971	$227,662		$227,662	$2,789,050	$91,317	$2,697,733
	2	0							
Nevada	1	17.7	1974	$281,190	$56,530	$337,720	$6,434,106	$45,397	$6,388,709
Ralph Green	3	70.9	1981	$285,572	$81,385	$366,957	$6,156,152	$95,230	$6,060,922
Lake Road	Boiler 1	N/A	1962	$120,344		$120,344	$3,098,749	$117,312	$2,981,437
	Boiler 2	N/A	1962	$120,344		$120,344	$3,098,749	$117,312	$2,981,437
	Boiler 3	N/A	1937	$161,768		$161,768	$3,611,257	$151,376	$3,459,881
	Boiler 4	N/A	1951	$138,357		$138,357	$4,045,457	$196,024	$3,849,433
	Boiler 5	N/A	1957	$183,266	$1,175,349	$1,358,615	$6,388,857	$224,107	$6,164,750
	Boiler 8	N/A	2006	$105,550		$105,550	$2,250,354	$224,107	$2,026,247
	#4 / #6	96.3	1966	$386,400	$637,591	$1,023,991	$8,380,637	$1,262,740	$7,117,897
	Generator 1	9.4	1950	$49,349		$49,349	$2,375,879	$38,162	$2,337,717
	Generator 2	19.0	1958	$49,349		$49,349	$2,615,898	$43,797	$2,572,101
	Generator 3	6.6	1962	$43,656		$43,656	$1,874,480	$25,661	$1,848,819
	CT 5	67.0	1974	$209,711		$209,711	$2,414,288	$88,266	$2,326,022
	CT 6	21.0	1989	$159,554		$159,554	$1,665,869	$91,317	$1,574,552
	CT 7	20.5	1990						
	Common			$875,025	$174,289	$1,049,314	$4,054,680	$248,964	$3,805,716
Iatan	1	712.9	1980	$1,035,765	$36,970,077	$38,005,842	$24,018,833	$10,000,000	$14,018,833
	2	881.5	2010	$1,031,343		$1,031,343	$27,449,519	$11,430,000	$16,019,519
	Common			$590,627	$6,042,837	$6,633,464	$24,874,543	$6,850,000	$18,024,543
Jeffery Energy Center[3]	1	718.0	1978						
	2	715.0	1980						
	3	722.0	1983						
	Common				$18,426,409	$18,426,409			
TOTALS		**5,395**	**N/A**	**$9,305,445**	**$77,986,765**	**$87,292,210**	**$208,333,302**	**$38,460,858**	**$169,872,444**

Notes

(1) Current net SPP accredited unit capability, MW.

(2) Activities required by permits and/or regulations that are to occur upon ceasing operations, including ash landfill closures, and river water intake.

(3) GMO owns a percentage of Jeffery Energy Center. Westar is the controlling owner.

(4) Current scrap values per averaged indices.

Q: Are retirement costs optional for GMO?

A: At present, GMO is not required to dismantle its plants upon retirement, and therefore, it is not known when, or even if, the portion of the costs in my study related only to dismantlement will be incurred. However, that is not the case for the costs of retiring the generating units and common facilities. Retirement costs are the costs that will be unavoidably incurred by the Company when the plant is shut-down, even if the closed plant is never dismantled.

Q: How have the results of your study been used in this case?

A: It is my understanding that the retirement costs I have identified have been incorporated into the depreciation study performed for GMO by Company witness, Mr. John Spanos. It is also my understanding that Mr. Spanos has not included the dismantling costs from my study in his depreciation study. By keeping the two categories of costs separate in my study, I have facilitated Mr. Spanos' efforts in this regard, and I have provided substantial evidence to the Commission clearly showing the distinction between the two categories of costs.

Q: Was the Schedule CRR-2 study prepared under your direction and supervision?

A: Yes. I am the Officer-in-Charge at Sega for this study and participated in determining the methodology and in the performance of the work with our team. I visited each of the plant sites, provided oversight during preparation of the report, and reviewed the results for reasonableness and appropriateness.

Q: Does this conclude your testimony?

A: Yes.

BEFORE THE PUBLIC SERVICE COMMISSION
OF THE STATE OF MISSOURI

In the Matter of KCP&L Greater Missouri Operations Company's Request for Authority to Implement A General Rate Increase for Electric Service	)))	Case No. ER-2016-0156

AFFIDAVIT OF CHRISTOPHER R. ROGERS

STATE OF KANSAS)
) **ss**
COUNTY OF JOHNSON)

Christopher R. Rogers, being first duly sworn on his oath, states:

1. My name is Christopher R. Rogers. I am employed by Sega, Inc. I have been retained to serve as an expert witness to provide testimony on behalf of KCP&L Greater Missouri Operations Company.

2. Attached hereto and made a part hereof for all purposes is my Direct Testimony on behalf of KCP&L Greater Missouri Operations Company consisting of Eight (8) pages, having been prepared in written form for introduction into evidence in the above-captioned docket.

3. I have knowledge of the matters set forth therein. I hereby swear and affirm that my answers contained in the attached testimony to the questions therein propounded, including any attachments thereto, are true and accurate to the best of my knowledge, information and belief.

Christopher Robert Rogers
Christopher R. Rogers

Subscribed and sworn before me this 5th day of February, 2016.

Judith A Dennis
Notary Public

My commission expires: December 29, 2018

JUDITH A. DENNIS NOTARY PUBLIC STATE OF KANSAS 12/29/18

Chris R. Rogers, P.E.

POSITION Vice President, Sega Inc.

EDUCATION B.S.M.E., 1974
Kansas State University
Manhattan, Kansas

M.S.C.E. Civil Engineering – Construction Management, 1981
University of Missouri-Columbia
Columbia, Missouri

LICENSES Professional Engineer Licenses

- California
- Colorado
- Florida
- Hawaii
- Idaho
- Illinois
- Kansas
- Kentucky
- Michigan
- Missouri
- Montana
- North Carolina
- Utah
- NCEES Record Certificate

AFFILIATIONS American Society of Mechanical Engineers

EXPERIENCE SUMMARY

Mr. Rogers is a Vice President of Sega Inc. and a licensed professional engineer with 40 years of experience in the power industry. He leads the firm's corporate risk management activities and directs the firm's planning and studies practice. Mr. Rogers also provides project management and engineering services for Sega's electric power generating clients.

He has provided engineering and management services for many types of electric generating projects, including simple and combined cycle combustion turbine units, coal and waste coal-fired fluidized bed boiler plants, pulverized coal units, and biomass-fired plants. He has performed engineering and feasibility reviews for financing, construction monitoring, and performance testing of numerous generating facilities.

Mr. Rogers was the Manager of Generating Facilities in the Electric Department of the staff of the Missouri Public Service Commission from 1983 through 1986. He supervised the construction management audits in the rate cases for the Callaway Plant and Wolfcreek Nuclear Generating Station, had limited participation in the Grand Gulf Nuclear Station rate case, and performed other assignments concerning regulated generating facilities throughout the State of Missouri.

During the first decade of his career, Mr. Rogers performed mechanical engineering design services for large utility-owned coal-fired central generating facilities while employed by a nationally recognized consulting engineering firm. He served on project design teams in the main office and as the chief mechanical resident engineer on a green-field, coal-fired power plant construction site.

SELECTED PROJECT EXPERIENCE

- **Kansas City Power & Light Company, Kansas City, Missouri** - Officer-in-charge of study for the 2016 Kansas City Power & Light – Greater Missouri Operations Company (GMO) Missouri rate case providing opinion of probable costs of retirement and dismantlement of 25 fossil-fueled generating units totaling approximately 1,720-MW of capacity, including six (6) coal-fired units, and fifteen (19) combustion turbines. Prepared direct testimony for filing with the Missouri Public Service Commission sponsoring Sega's report in Case No. ER-2014-____.

  Officer-in-charge of study for the 2014 Missouri rate case providing opinion of probable costs of retirement and dismantlement of 24 fossil-fueled generating units and 99 wind turbine generators totaling 5,306-MW of capacity, including eight (8) coal-fired units, one (1) combined-cycle plant, and fifteen (15) combustion turbines. Submitted pre-filed direct testimony before the Missouri Public Service Commission sponsoring Sega's report in Case No. ER-2014-0370.

  Officer-in-charge of study for the 2014 Kansas rate case providing opinion of probable costs of retirement and dismantlement of 24 fossil-fueled generating units and 99 wind turbine generators totaling 5,306-MW of capacity, including eight (8) coal-fired units, one (1) combined-cycle plant, and fifteen (15) combustion turbines. Prepared direct testimony for filing with the Kansas Corporation Commission sponsoring Sega's report for Docket No. 15-KCPE-116-RTS.

  Officer-in-charge of study for the 2012 Kansas rate case providing opinion of probable costs for retirement and dismantlement of 24 fossil-fueled generating units totaling 5,260-MW of capacity, including eight (8) coal-fired units, one (1) combined-cycle plant, and fifteen (15) combustion turbines. Provided pre-filed direct and rebuttal testimony before the Kansas Corporation Commission sponsoring Sega's report in Docket No. 12-KCPE-764-RTS.

- **Kansas City Power & Light Company, Kansas City, Missouri** - Officer-in-charge and project manager for 2014 power plant siting study to identify and evaluate multiple candidate sites for potential location of a new combined-cycle plants, simple-cycle peaking turbines, and reciprocating engine generating plants. Provided detailed report of findings to Kansas City Power & Light Company Resource Planning Department.

Officer-in-charge and project manager for 2010 Great Plains Energy combined cycle plant siting study to identify and evaluate multiple candidate sites for potential location of new 600-MW class combined-cycle plant. Provided detailed report of findings to Kansas City Power & Light Company Resource Planning Department.

- **Kansas City Power & Light Company - GMO, Lake Road Generating Station, St. Joseph, Missouri** – Officer-in-charge and project manager for a study that assessed the feasibility of the KCP&L industrial steam generation and delivery system to serve its industrial steam customers.

- **Kansas City Power & Light - GMO (Formerly Aquila), South Harper Peaking Facility, Peculiar, Missouri** – 315-MW simple-cycle peaking plant. Project manager of Owner's Engineer for siting, permitting support, detailed installation design, balance of plant procurement, construction management services, commissioning, and documentation support. Sega's project manager and site manager.

- **Kansas City Power & Light, West Gardner and Osawatomie Generating Stations** – Two simple-cycle peaking projects. Sega, Inc's turnkey proposal manager for engineer-led EPC proposal for 400-MW of GE 7E gas turbine generator sets.

- **Independence Power & Light Department, Independence, Missouri** – Master plan study for a nominal 320-MW municipal utility. Project manager for five-year planning study including existing generation assessment, transmission system assessment, load forecast, alternative power supply analysis and economic evaluation.

- **State of Hawaii Division of Consumer Advocacy** – Investigated island-wide blackouts that occurred on Oahu and Maui after the earthquakes on October 15, 2006 and again on Oahu after lightning events on December 26, 2008. Officer-in-charge and project manager of team investigating causes of the outages, assessing utility outage recovery operations and identifying potential improvements to prevent or minimize future outages.

- **Utah Municipal Power Agency, Spanish Fork, Utah** – Officer-in-charge and project manager for due diligence assessment of a simple cycle 200-MW peaking plant consisting of five GE LM6000 combustion turbine generator sets.

- **Utah Municipal Power Agency, Spanish Fork, Utah** – Officer-in-Charge and Project manager for a study assessing the feasibility of potential sites and development of opinions of probable cost for installation of simple-cycle combustion turbines and reciprocating engine generating sets as a subcontractor to Sawvel and Associates of Findlay, Ohio.

- **Kansas City Board of Public Utilities, Nearman Creek CT4, Kansas City, Kansas** – 85-MW simple-cycle peaking unit. Owner's Engineer (Sega, Inc.) site manager for commissioning, including checkout, performance testing, emissions testing and management of construction completion closeout activities.

- **Trigen – Kansas City Energy Corporation, Kansas City, Missouri** – Sega, Inc.'s project manager for feasibility study to repower a district heating plant with an 80-MW combustion turbine and heat recovery steam generator cogeneration project.

- **Conserve Energy System, Centralia, Illinois** – Sega, Inc.'s project manager on a technical feasibility study for a 215-MW coal-fired atmospheric circulating fluidized bed boiler steam electric generating plant.

- **Cargill, Inc., Blair, Nebraska** – Sega, Inc.'s project manager for feasibility study for an 100-MW net combustion turbine and heat recovery steam generator cogeneration project.

- **Independence Power & Light Department, Independence, Missouri** – Sega, Inc.'s project manager for major refurbishment program on six GE Frame 5 and one GE 7B-regenerative, oil and gas-fired gas turbines. Project included condition assessments, specifications, and contracting for renewal and upgrade components, unit controls replacement, remote digital controls addition, and major overhaul of each unit.

- **Somerset Generating Station, Somerset, Massachusetts** – Black & Veatch's project manager on independent engineering review, performing condition assessments for Montaup Electric Company's divestiture of a 40-MW net, oil-fired combustion turbine (2 x FT4) black start peaking unit, a 100-MW coal-fired power plant, a total of 16-MW of diesel generators (8 x 2-MW GM-EMD) and a 2-MW hydro electric plant.

- **Constellation Energy, Freehold, New Jersey** – Sega, Inc.'s project manager for review of project proforma and preparation of testimony before the New Jersey Board of Public Utilities concerning net present value of a 110-MW net, gas-fired combined cycle cogeneration project.

- **Cherokee County Cogeneration Project, Gaffney, South Carolina** – Sega, Inc.'s project manager for an 80-MW net, gas-fired combined cycle (GE 106FA) cogeneration project in Gaffney, South Carolina for Prudential Power Financing. Performed technical review of project during design, permitting, contracting, and financing. Conducted construction monitoring for lender. Also served as interim president of project development entity during lender's takeover of project and equity sale to FP&L.

- **Independence Power and Light, Independence, Missouri** – Sega, Inc.'s project manager for study of 100-MW coal-fired steam electric unit, including conceptual design and estimating performance and cost for client's comparison to participation in Iatan II Project. Compiled and compared capital and operation and maintenance cost of alternative 100-MW coal-fired steam electric plants including pulverized coal and CFB plants, and natural gas-fired combined cycle and simple cycle units of the same size.

- **Florida State Correction Facility**, Starke, Florida – Bibb and Associates' project manager for independent review for potential equity investor, KLT Power, Inc. on a 23-MW, wood gasification and natural gas-fired, combined-cycle cogeneration project proposed near Starke, Florida.

- **Indeck-Oswego Energy Center, Oswego, New York** – Bibb and Associates' project manager on independent engineering review for BA Securities, Inc. regarding the power sales agreement during term of financing of 51-MW, gas-fired combined-cycle (GE6B) cogeneration project in Oswego, New York.

- **North Carolina EMC**, Raleigh, North Carolina – Bibb and Associates' project manager of the Owner's Engineer team that wrote specifications and evaluated EPC proposals for a 330-MW gas-fired combined-cycle project and 100-MW gas-fired simple-cycle project in North Carolina.

- **Indeck-Olean Energy Center, Olean, New York** – Bibb and Associates' project manager on independent engineering review for bank group consisting of Canadian Imperial Bank of Commerce, BOT Financial, Inc., Westpac Banking Corporation, and Toronto Dominion Bank. Project was a 79-MW, gas-fired combined-cycle (GE 6B) cogeneration project in Olean, New York. Scope included review of technical feasibility and economic viability of project for financing, construction progress monitoring and oversight of performance demonstration tests.

- **Orlando CoGen Limited, L.P, Orlando, Florida.** – Bibb and Associates' project manager for independent engineering review for senior lender, the Sumitomo Bank, Limited of a 120-MW gas-fired, single-shaft combined cycle (ABB11N1/VAX) cogeneration project in Orlando, Florida developed by Air Products and Chemicals, Inc. and Utilicorp United.

- **ACE Cogeneration Project, Trona, California** – Bibb and Associates' project manager for independent engineering assessment for equity investor, US West Capital, Inc., including design, permit status, operations and maintenance of an existing 96-MW, coal-fired CFB steam electric plant.

- **Arroyo Cogeneration, Escondido, California** – Bibb and Associates' project manager for engineering review of project for development financing for Heller Financial, Inc, including alternate site selection program for a 49.9-MW, gas-fired, combined cycle (GE LM6000) cogeneration project.

- **Nestles Freehold Cogeneration Project, Freehold, New Jersey** – Bibb and Associates' project manager for independent engineering review for development financing by Heller Financial, Inc. of a proposed 110-MW, gas-fired, single-shaft combined cycle (ABB11N1/VAX) cogeneration project by Constellation Energy.

- **Intercontinental Energy, Bellingham, Massachusetts and Sayreville, New Jersey** – Bibb and Associates' project manager for independent engineering review for potential equity investor, American Energy Division of Potomac Capital Investment Corporation, for two 300-MW, gas-fired combined cycle (2 x W501D) cogeneration projects.

- **Sunnyside Cogeneration Project, Carbon County, Utah** – RW Beck and Associates' project manager for independent engineering review for senior lender, Swiss Bank Corporation, of the design and permitting review of a 50-MW waste coal-fired circulating fluidized bed boiler electric generating plant.

- **North Branch Power Project, Bayard, West Virginia** – RW Beck and Associates' project manager on independent engineering review for financing and construction monitoring for senior lender, Security Pacific Bank of a 80-MW waste coal-fired, circulating fluidized bed boiler project.

- **Unocal Geothermal, Monterey, California** – RW Beck and Associates' engineer, retained by Unocal to provide independent third-party oversight and monitoring of biennial performance tests by Pacific Gas and Electric Company at the Moss Landing Power Station (two 750-MW super-critical, gas and oil-fired steam electric generating units) related to geothermal steam pricing at Unocal's Geysers Geothermal projects.

- **St. Nicholas Power Project, Mahanoy Township, Pennsylvania** – RW Beck and Associates' project manager on independent engineering review for financing, construction monitoring and performance test monitoring for senior lender, Bank of New England for an 80-MW waste coal-fired steam electric plant.

- **Callaway Nuclear Generating Station, Fulton, Missouri** – Manager of Generating Facilities for the Missouri PSC staff, investigated and/or provided testimony concerning project construction management, in-service criteria, net electric capability, decommissioning funding, and in-service completion in rate case for an 1150-MW, PWR nuclear generating station.

- **Wolf Creek Nuclear Generating Station, Burlington, Kansas** – Manager of Generating Facilities for the Missouri PSC staff, investigated and/or provided testimony concerning project construction management, in-service criteria and startup, related fossil-fuel plant retirements, related plant accreditations, depreciation, and net electric capability in rate case for an 1120-MW PWR nuclear generating station.

- **Grand Gulf Generating Station I, Grand Gulf, Mississippi** –. Manager of Generating Facilities for the Missouri PSC staff, investigated and provided testimony concerning in-service criteria, in-service status, and overall project NRC inspection and licensing status for a 1250-MW BWR nuclear generating station.

- **Plains-Escalante Generating Station, Unit 1, Prewitt, New Mexico** – Burns & McDonnell's senior mechanical design engineer for mechanical equipment and systems, equipment procurement, construction contracting and coordination; and chief resident mechanical engineer during construction of a 220-MW pulverized coal power plant.

- **Basin Electric Power Cooperative, Inc., Laramie River Station, Wheatland, Wyoming** - Burns & McDonnell's mechanical design engineer for equipment and systems, equipment procurement, and construction contracting and CPM scheduler for coordination of construction completion of systems with sequenced system start-up program for three, 600-MW, pulverized coal-generating units for the Missouri Basin Joint Power Project Agency, lead by the Basin Electric Power Cooperative, Inc.

TESTIMONY BEFORE THE MISSOURI PUBLIC SERVICE COMMISSION

Issue Description	Exhibit No.		Transcript Vol. No.	Page Nos.
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TESTIMONY BEFORE THE KANSAS CORPORATION COMMISSION

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KANSAS CITY POWER & LIGHT COMPANY, INC.
DOCKET NO. 12-KCPE-764-RTS

The Costs of Retirement and Dismantlement: Decommissioning KCP&L Fossil-Fueled Generating Units	Pre-filed Direct Testimony Pre-filed Rebuttal Testimony

SCHEDULE CRR-2

Kansas City Power & Light Co.

The Costs of Retirement and Dismantlement:

Decommissioning KCP&L-GMO's Generating Units

Final, Rev. 1

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Sega

ENGINEERING & TECHNICAL SERVICES

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CERTIFICATION

I hereby certify that this document was prepared by me or under my direct supervision and that I am a duly Licensed Professional Engineer under the laws of the State of Missouri.

Christopher Robert Rogers
February 3, 2016

Christopher R. Rogers, P.E.
State of Missouri P.E. No. 021087

SECTION 1

EXECUTIVE SUMMARY

EXECUTIVE SUMMARY

1.1 INTRODUCTION

Kansas City Power & Light Company Greater Missouri Operations (GMO) Company retained Sega, Inc. (Sega) to provide an opinion of probable costs for retirement and dismantlement of its generating units. This report presents the results of Sega's study of the costs for decommissioning these facilities.

Decommissioning is comprised of two principal phases: ***retirement*** and ***dismantlement***. ***Retirement*** is the shutdown or closure and removal from service of a generating unit or facility, and includes disconnection, de-energization, cleanout, and securing of the units to render them safe. ***Retirement*** triggers unavoidable costs for compliance with the mandatory provisions of the various plants' permits and with the specific requirements of State and Federal regulations for the closure of ash landfills, the removal and remediation of fuel-oil tanks, and the reclamation of river water intakes.

GMO is not required to dismantle its plants upon retirement, and therefore, it is not known when, or even if, dismantlement costs will be incurred. Often a unit may not be dismantled until sometime after it is retired, particularly if there are other operational generating units on the same site. ***Dismantlement*** is the orderly demolition of the unit in a controlled and safe manner so as to preserve the scrap value of reclaimed materials while appropriately protecting the workers and the environment. Scrap values are considered separately from dismantlement costs because scrap values have proven volatile over time. Scrap values in this report were developed from current average index prices, and were netted out against dismantlement costs to produce net terminal costs for each unit. All costs are provided in current day, 2015 dollars.

1.2 DESCRIPTION OF FACILITIES

The GMO generating facilities are located on eight sites and include 18 simple-cycle combustion turbines, four steam electric generating units, and a steam production facility utilizing six boilers that can be fired to generate electricity by supplying steam to three turbine generators or supplying steam to commercial customers. The major attributes of each unit are provided in Figure 1.1 and further described below.

Plant Name	Unit No.	Current Net SPP Accredited Capability, MW	First Year In Service	Fuel / Type
Sibley	1	51	1960	Coal/Steam
	2	51	1962	
	3	363.8	1969	
South Harper	1	104.5	2005	Natural Gas-Fired Combustion Turbines
	2	105.6	2005	
	3	103.8	2005	
Greenwood	1	62.5	1975	Distillate-Fired/ Natural Gas-Fired Combustion Turbines
	2	60.8	1975	
	3	65.8	1977	
	4	63.3	1979	
Crossroads	1	74.9	2002	Natural Gas-Fired Combustion Turbines
	2	72.9	2002	
	3	74.6	2002	
	4	74.4	2002	
KCI	1	0	1971	Natural Gas-Fired Combustion Turbines
	2	0	1971	
Nevada	1	20.8	1974	Distillate-Fired Combustion Turbine
Ralph Green	3	71.5	1981	Natural Gas-Fired Combustion Turbine
Lake Road	Boiler 1	N/A	1962	Distillate-Fired/ Natural Gas-Fired Boiler
	Boiler 2	N/A	1962	Distillate-Fired/ Natural Gas-Fired Boiler
	Boiler 3	N/A	1936	Natural Gas Fired Boiler
	Boiler 4	N/A	1951	Distillate-Fired/ Natural Gas-Fired Boiler
	Boiler 5	N/A	1959	Coal-Fired/Natural Gas-Fired Boiler
	Boiler 8	N/A	2006	Distillate-Fired/ Natural Gas-Fired Boiler
	#4/#6	99.0	1967	Coal-Fired/Natural Gas-Fired
	Generator 1	21.7	1951	Distillate-Fired/ Natural Gas-Fired Coal-Fired
	Generator 2	27.3	1957	Distillate-Fired/ Natural Gas-Fired Coal-Fired
	Generator 3	11.2	1962	Distillate-Fired/ Natural Gas-Fired Coal-Fired
	#5	63.0	1973	Distillate-Fired/ Natural Gas-Fired
	#6	21.0	1989	Distillate-Fired Combustion Turbine
	#7	21.7	1990	Distillate-Fired Combustion Turbine
Iatan	1	705	1980	Coal/Steam
	2	881	2010	Coal/Steam

Figure 1.1 - GMO Electric Generating Units

1.2.1 Facility Descriptions

Sibley Generating Station is a three-unit, coal-fired electric generating station located in Jackson County, near the town of Sibley, Missouri. Sibley Units 1 and 2 have sub-critical boilers, electrostatic precipitators (ESPs), and an SNCR. Sibley Unit 3 is a super-critical boiler, ESP, and an SCR.

South Harper Generating Station is a three-unit, natural gas-fired combustion turbine peaking plant in Cass County, near the town of Peculiar, Missouri.

Greenwood Generating Station is a four-unit distillate and natural gas-fired combustion turbine peaking plant in Jackson County, near the town of Greenwood, Missouri.

Crossroads Generating Station is a four-unit natural gas-fired combustion turbine peaking plant in Clarksdale, Mississippi.

KCI Generating Station is a two-unit, natural gas-fired combustion turbine peaking plant in Platte County, Missouri on the eastern edge of the Kansas City International Airport property.

Nevada Generating Station is a single-unit, distillate and natural gas-fired combustion turbine peaking plant located in Vernon County, near Nevada, Missouri.

Ralph Green Station is a single-unit, natural gas-fired combustion turbine peaking plant located in Cass County, in Pleasant Hill, Missouri.

Lake Road Generating Station is a multi-unit facility located in Buchanan County in St. Joseph, Missouri. Lake Road generates electricity from four steam turbine generators that receive steam from seven different boilers. These boilers burn either gas, distillate, or coal. These same boilers also produce steam that is sold to local steam customers. Lake Road also includes three combustion turbines that fire distillate (CTG 5, CTG 6, and CTG 7) or natural gas (CTG 5).

Iatan Generating Station is located in rural Platte County, near the town of Weston, Missouri. Unit 1 is a pulverized coal-fired, sub-critical steam electric plant with an SCR, baghouse, and wet scrubber. Unit 2 is a pulverized coal-fired, super-critical steam electric plant with an SCR, baghouse, and wet scrubber.

1.3 APPROACH

Sega met with representatives of GMO to gather information about the generating units and visited each of the plant sites (with the exception of the Crossroads facility). Discussions were held with certain plant staff, further documentation was obtained, and a walkdown of each unit was conducted. Sega utilized Microsoft® Project 2010 (MS Project) software with resource loading to develop and compile opinions of probable costs and schedules for the retirement of each unit. Costs were developed based on GMO's current labor rates and those of its present maintenance contractors. Site-specific retirement costs were developed using a bottom-up approach for each task.

The basis and limits for retiring or dismantling each unit were defined while visiting the plant sites. For instance, it was assumed that the switchyard and/or substation (as applicable) for each generator would remain in service following either retirement or dismantlement. In general, plant roads, fencing, and site grading were presumed to remain undisturbed unless otherwise specifically required to be removed. Closure of ash landfills, and the removal and remediation of river water intakes and fuel oil storage tanks were included in the retirement phase as required by applicable permits.

Dismantlement costs for Sibley Unit 3 was developed from the ground up. It was assumed that common facilities at each plant site, such as coal unloading, storage and handling systems, water treatment systems, ash handling systems, and office buildings, would remain in service until the last unit is retired. For multiple-unit sites, retirement and dismantlement costs were developed separately for the common plant facilities. For instance, applicable ash landfill closure costs for the units were included in the common plant category rather than for individual units.

The estimates of probable cost for "stack removal" and "final site grading and drainage" for the various sites were not developed using MS Project software. The "stack removal" costs for the various stacks were based on a budgetary estimate for the demolition of the existing Iatan Unit 1 stack. This estimate was scaled to estimate the demolition for the other stacks involved in this study. The "final site grading and drainage" estimate of probable cost was developed by Sega but was not developed in an MS Project schedule. Both of these activities are represented in the MS Project schedule in Appendix A for the applicable units as a onetime cost/use in the resource allocation section of the file; therefore, they appear as a one-day activity in the schedule with the estimated costs as a one-time expense.

1.4 RESULTS

The opinion of the probable costs for retirement and dismantlement developed by Sega for each of GMO's units and the common facilities at each plant site are provided in Figure 1.2. All costs shown are in 2015 dollars. The costs are provided for the full ownership of these generating facilities. Fractional shares of ownership and jurisdictional allocations have not been taken into account in these costs. Ongoing expenses for the sites such as security, routine inspections, groundwater monitoring, etc., which would continue as long as the Company continues to own the sites, are not included in the decommissioning costs. Retirement costs are separately provided for each unit and for related common plant facilities. The costs of dismantlement and scrap values are provided for each unit and for common plant, as well as the final net terminal costs.

As shown in Figure 1.2, there is a significant difference between the costs of retiring and the costs of dismantling a power plant. In Sega's opinion, the probable cost to dismantle all of GMO's units is approximately $208 million. Some materials could be sold for scrap, thereby recovering approximately $38 million and bringing the estimated net terminal value for dismantling all of GMO's plants to $170 million, based upon the current averaged scrap indices.

However, were GMO to retire its generating units in place without dismantlement, Sega believes the cost would be approximately $68.9 million.

Name	Unit No.	Retirement			Dismantlement		
		Unit Retirement	Activities Required by Permit Agreement or Regulation [2]	Total Retirement	Dismantlement	Scrap Value [3]	Net Terminal Cost
Sibley	1	$482,368		$482,368	$6,034,974	$848,154	$5,186,820
	2	$482,368		$482,368	$6,034,974	$848,154	$5,186,820
	3	$535,958		$535,958	$16,835,426	$2,757,087	$14,078,339
	Common	$531,710	$13,950,965	$14,482,675	$10,134,174	$1,564,206	$8,569,968
South Harper	1 2 3	$404,885		$404,885	$9,383,425	$358,946	$9,024,479
Greenwood	1 2 3 4	$413,021	$471,333	$884,354	$11,063,645	$353,746	$10,709,899
Crossroads	1 2 3 4	$400,303		$400,303	$11,249,327	$389,486	$10,859,841
KCI	1 2	$227,662		$227,662	$2,789,050	$91,317	$2,697,733
Nevada	1	$281,190	$56,530	$337,720	$6,434,106	$45,397	$6,388,709
Ralph Green	3	$285,572	$81,385	$366,957	$6,156,152	$95,230	$6,060,922
Lake Road	Boiler 1	$120,344		$120,344	$3,098,749	$117,312	$2,981,437
	Boiler 2	$120,344		$120,344	$3,098,749	$117,312	$2,981,437
	Boiler 3	$161,768		$161,768	$3,611,257	$151,376	$3,459,881
	Boiler 4	$138,357		$138,357	$4,045,457	$196,024	$3,849,433
	Boiler 5	$183,266	$1,175,349	$1,358,615	$6,388,857	$224,107	$6,164,750
	Boiler 8	$105,550		$105,550	$2,250,354	$224,107	$2,026,247
	#4 / #6	$386,400	$637,591	$1,023,991	$8,380,637	$1,262,740	$7,117,897
	Generator 1	$49,349		$49,349	$2,375,879	$38,162	$2,337,717
	Generator 2	$49,349		$49,349	$2,615,898	$43,797	$2,572,101
	Generator 3	$43,656		$43,656	$1,874,480	$25,661	$1,848,819
	CT 5	$209,711		$209,711	$2,414,288	$88,266	$2,326,022
	CT 6 & 7	$159,554		$159,554	$1,665,869	$91,317	$1,574,552
	Common	$875,025	$174,289	$1,049,314	$4,054,680	$248,964	$3,805,716
Iatan	1	$1,035,765	$36,970,077	$38,005,842	$24,018,833	$10,000,000	$14,018,833
	2	$1,031,343		$1,031,343	$27,449,519	$11,430,000	$16,019,519
	Common	$590,627	$6,042,837	$6,633,464	$24,874,543	$6,850,000	$18,024,543
		$9,305,445	$59,560,356	$68,865,801	$208,333,302	$38,460,868	$169,872,434

Figure 1.2 - Probable Costs of Decommissioning GMO Electric Generating Units[1]

(1) All values in 2015 U.S. dollars.

(2) Activities required by permits and/or regulations that are to occur upon ceasing operations, including ash landfill closures and river water intake structures.

(3) Current scrap values per averaged indices.

SECTION 2

RETIREMENT

RETIREMENT

2.1 INTRODUCTION

Sega developed an opinion of probable cost to retire the GMO facilities previously listed in Figure 1.1 and further described in Appendix A. The opinion of probable cost is a buildup of estimated costs to perform the retirement activities to leave each facility in a safe state. A resource-loaded MS Project schedule was developed for the retirement of each facility. Each schedule includes the activity, duration of the activity, resources required for each activity, and the probable cost of each activity. The results for each facility are provided in Appendix A of this report.

The opinion of probable cost for the retirement of each coal-fired generating facility is broken down into the retirement of each unit (or boiler, turbine, and CTG in the case of Lake Road), plus the retirement of the common facilities. The common facilities will be retired when the last unit is retired at a site.

2.2 OPINION OF PROBABLE COST BASIS

Retirement activities will be performed by KCP&L bargaining unit personnel and managed by GMO. Man-hour costs for both management and bargaining unit personnel were provide by GMO. At the direction of GMO, the direct man-hour rate was multiplied by 1.4 to account for benefits and overhead loadings.

The estimates of probable cost to retire the combustion turbines are based on retiring all of the combustion turbines at a given site, not on an individual combustion turbine retirement basis. The only exception is at Lake Road. At Lake Road, CTG 5 is retired as a single unit and CTGs 6 and 7 are retired together per direction from the Lake Road plant staff.

A 5-percent "Owner Internal Costs" is included in the opinion of probable cost. This line item is included to cover the costs of various internal GMO departments that will charge to the project during the implementation of the retirement activities.

A 25-percent "Owner Contingency" is included in the opinion of probable cost. This level of contingency is consistent with Association for the Advancement of Cost Engineering (AACE-International) contingency level guidelines based on the engineering progress completed at the point when the cost estimate was developed.

2.3 RETIREMENT ACTIVITIES

Prior to starting the actual retirement activities, a retirement plan will be developed. This plan will address any laws, ordinances, regulations, and standards dictating how ash, slag, scrubber by-products, and any other waste stream is stored and/or removed from the plant site. An environmental assessment will be performed to develop a plan to address these issues and to assure that permits required to complete the retirement activities are in place. The retirement plan will also address plant safety during the time interval between plant retirement and eventual dismantlement. This plan should include the requirements for periodic inspections to assess the condition and integrity of the plant structures so that contractors can safely demolish the plant when so required. The costs to perform these activities are estimated in the "Pre-Retirement Activities" line item of each facility's opinion of probable cost.

The following activities and conditions are required to leave a generating facility (unit, common facilities, or entire plant, as may be applicable) in a safe state and are included in each facility's opinion of probable cost:

1. All equipment, tanks, vessels, containers, drums, headers, exchangers, and sumps will be drained and vented. Fuel oil, lubricating oil, liquid propane, bulk hydrogen, Halon, liquid ammonia, water treatment chemicals, lab chemicals, cleaning solutions, and Freon will be handled per plant procedures and plan permitting requirements. Man-ways, hand-holes, vents, and drains will be opened to ensure drainage. Drains will remain open.

2. The electrical sources will be isolated from the facility. The exact details of this scope of work will be determined during the pre-retirement activities phase. At a minimum, all electrical buses will be disconnected at the source. The medium- and low-voltage switchgear will be racked out by fully withdrawing the circuit breakers. Fuses will be removed, and circuit breakers and disconnect switches will be left in the open position. Motors

will be disconnected at the source and motor lube oil will be drained (as applicable).

3. Fuel yard equipment will be cleaned and vacuumed to reduce or eliminate the hazards of fugitive coal dust.

4. To the maximum extent possible, all drains will be emptied and vented. Low-point drains will remain open.

5. Fuel gas piping and city/rural water piping will be cut and capped at the property line.

6. Chimney Federal Aviation Agency (FAA) required lighting will be kept in service.

7. Buildings will be "secured". The determination of the detailed activities required to leave a building in a secure state is included in the pre-retirement activities and will include isolating all power sources, draining potable water lines, draining and venting sewage lines, securing doors and windows, capping any means of egress for vermin, removing hazardous materials, and moving any relevant plant documentation to alternate off-site storage sites.

8. Fuel oil and waste oil will be drained and removed.

9. Boiler chemicals will be drained and removed.

10. Boilers and HRSGs will be drained. The water and steam side will be vented. The gas side will be vacuumed to remove ash and slag. Drum doors and boiler doors will be left open. Bottom ash systems will be drained, cleaned, and vented.

11. Ductwork will be vacuumed and left open.

12. Condensate and feedwater piping will be drained and vented.

13. Feedwater heaters will be drained and vented.

14. Deaerator and deaerator storage tanks will be drained and vented.

15. The turbine and condenser will be drained and vented.

16. The generator will be electrically and mechanically isolated. The generator and exciter cooling water systems will be drained and vented. Hydrogen gas tanks and the generator hydrogen systems will be vented.

17. Compressed air systems will be drained and vented. Desiccant will be removed from the compressed air dryer systems.

18. Circulating water systems and turbine cooling water systems will be drained and vented. Circulating water chemical feeds will be drained and vented.

19. Baghouses will be opened, cleaned, and vented. Filter bags and cages will be removed.

20. Wet Flue Gas Desulfurization (FGD) systems will be drained, opened, cleaned, and vented.

21. Dry FGD systems will be drained, opened, cleaned, and vented.

22. Re-agent preparation facilities will be drained, opened, cleaned, and vented.

23. SCRs will be opened, cleaned, and vented. Catalyst will be removed. Ammonia storage tanks will be emptied and vented.

24. The battery systems will have the battery electrolytes and battery cells removed and disposed.

25. Sewage treatment facilities will be drained, cleaned, and vented.

26. Oily drain tanks will be opened and pumped out.

27. CO_2 systems used for fire protection will be drained, opened, and vented.

28. Any other activities required by law, regulation or permit for a specific unit, common facility or plant site will be performed.

Once the site retirement activities are complete, several months of post-retirement activities will commence. These activities include determining the disposition of site documentation, assuring permits are in correct condition, developing plans to monitor the retired facility, accounting and environmental activities, and re-assigning personnel as required.

2.4 ARO ACTIVITIES

Asset Retirement Obligations (AROs) are a means that GMO utilizes to track the costs of activities that are required to be performed when one of its generating units ceases operation and is removed from service. These are activities that are required to be performed upon retirement according to permits, statutes, agreements, and regulations. For certain activities, such as ash landfill closures, GMO is required to periodically report

estimated cost updates to state environmental agencies (Kansas Department of Health and Environment and Missouri Department of Natural Resources). These agencies require GMO to periodically demonstrate the ability to fund these closure activities. This is because the costs for ash landfill closures and post-closure activities are significant.

Other activities, such as the removal of river water intakes, are stated requirements in the standard form permits issued by the United States Army Corp of Engineers. Also included in AROs are amounts for the abatement and removal of fuel oil storage tanks of the plants located in Missouri (Greenwood, Nevada, Lake Road, and Iatan Generating Stations).

While GMO accounts for asbestos abatement activities in AROs for the Greenwood, Nevada, and Sibley Generating Stations, these activities were excluded from the retirement and decommissioning costs. Asbestos abatement activities are ongoing at each of these sites during the life of the units, and will continue to be performed after retirement, but before dismantlement. Thus, asbestos abatement was not included in this decommissioning study.

Wherever KCP&L already had estimates and a basis for valuing the costs of such ARO closure activities, Sega reviewed and utilized these estimates, adjusting to 2015 present-day dollars. Where there was no prior estimate available, Sega developed an opinion of probable costs for their closure. Each of these costs is provided in Appendix A.

Appendix D is a table showing the source of the requirement that dictates each ARO activity.

SECTION 3

DISMANTLEMENT

DISMANTLEMENT

3.1 INTRODUCTION

Sega developed an opinion of probable cost to dismantle the GMO facilities that are listed in Appendix A. The opinion of probable cost is a buildup of estimated costs to perform the dismantlement activities to remove equipment and building superstructures down to grade-level foundations. Below-grade foundations, piping, and duct banks will be abandoned in place. A resource-loaded MS Project schedule was developed for the dismantlement of the facilities. Each schedule includes the activity, duration of the activity, resource required for each activity, and the probable cost of each activity. The results for each of the facilities are provided in Appendix A.

The opinion of probable cost for the dismantlement of each coal-fired generating facility is broken down into the dismantlement of each unit, plus the dismantlement of the common facilities. The common facilities will be dismantled when the last unit at the site is dismantled.

The estimate of probable cost to dismantle the combustion turbines are based on dismantling all of the combustion turbines at the site, not on an individual combustion turbine dismantlement basis with the exception of Lake Road. At Lake Road, CTG 5 is dismantled as a single unit and CTGs 6 and 7 are dismantled together per direction from the Lake Road plant staff.

3.2 OPINION OF PROBABLE COST BASIS

The project will be managed by GMO staff. GMO will hire an Owner's Engineer to assist with environmental issues and the technical dismantlement details. GMO will hire a Demolition General Contractor (DGC) to perform the complete dismantlement of each unit.

The opinion of probable cost is presented as the straight netting of the DGC's firm price cost, minus the current scrap value of the equipment and materials.

At the initiation of dismantlement, this study assumes that the unit or common facility has been previously retired as detailed in Section 2 - Retirement.

A resource-loaded MS-Project dismantlement schedule and an opinion of probable cost was developed for Iatan Unit 1, Sibley Unit 3, South Harper (all three units), Greenwood (all four units), Crossroads (all four units), KCI (both units), Nevada (one unit), Ralph Green (one unit), and Lake Road Boiler 1, Lake Road Boiler 2, Lake Road Boiler 3, Lake Road Boiler 4, Lake Road Boiler 5, Lake Road Boiler 8, Lake Road CTGs 6 and 7, Lake Road CTG 5, Lake Road T-G 1, Lake Road T-G 2, Lake Road T-G 3, and the common facilities at Iatan, Sibley, and Lake Road. The opinion of probable costs developed for Sibley Unit 3 was used to derive the dismantlement costs for Sibley 1, Sibley 2, and Lake Road 4/6 using the AACE International Capacity Factor Method. The cost for Iatan Unit 2 was derived from the cost to dismantle Iatan Unit 1 using the AACE International Capacity Factor method.

A 5-percent "Owner Internal Cost" is included in the opinion of probable cost. This line item is included to cover the costs of various internal GMO departments that will charge to the project during the implementation of the dismantlement activities.

A 25-percent "Owner Contingency" is included in the opinion of probable cost. This level of contingency is consistent with the AACE International contingency level based on the engineering progress completed at the point when the cost estimate is developed.

3.3 DISMANTLEMENT ACTIVITIES

The dismantlement of a facility is divided into pre-dismantlement activities, dismantlement activities, and project closure activities.

3.3.1 Pre-Dismantlement Activities

Pre-dismantlement activities consist of the detailed pre-planning of the dismantlement process. This pre-planning includes establishing the GMO project management team; hiring an Owner's Engineer; developing a detailed dismantlement scope of work, including how to address any environmental issues; developing a level 1 project schedule; and contracting with a DGC.

The GMO project management team will be responsible for the project execution and will consist of a full-time project manager, two full-time engineers, a full-time project administrative assistant, and a part-time procurement specialist. This team will have the authority to manage the dismantlement of the plant.

The Owner's Engineer will assist GMO with the technical aspects of executing the project. The Owner's Engineer will help establish the boundaries of demolition, provide environmental consulting, and develop the technical specifications for the DGC contract request for proposal. The Owner's Engineer will provide 1-1/2 full-time equivalent field engineers during the demolition phase of the project. The Owner's Engineer will also provide detailed design for equipment that requires modifications to keep other units or common facilities in operation during demolition and after the unit is dismantled.

The KCP&L project management team and the Owner's Engineer will review all existing permits to assure that any relevant existing permit requirements are met during demolition. This team will also get any additional required permits in place for demolition (outside of the normal permits that are the responsibility of the DGC).

Prior to dismantlement activities, a detailed site characterization study will be performed. This study involves a series of site investigations to determine potential subsurface environmental issues at the site, a description of the hydrological and hydrogeological conditions on the site, and a determination of potential waste streams generated during the demolition work. Based on the outcome of the site characterization study, reclamation, and remediation plans that address the environmental issues and site conditions will be

developed. The site characterization study and the development of the remediation plans can take up to six months to complete. The site characterization study will be performed by the Owner's Engineer.

The GMO project management team will identify the boundaries of dismantlement and the location of system and equipment isolation points between the unit to be demolished, common facilities, and units to remain.

The GMO project management team will be responsible for bidding and contracting with a qualified DGC.

Prior to the DGC mobilizing on site, the GMO project management team will confirm that the unit to be dismantled is ready to be turned over to the DGC.

3.3.2 Dismantlement Activities for a Coal-Fired Unit

The demolition contractor will be structured into several crews that will bring equipment and materials to the ground. A separate dedicated crew will be responsible for classifying the scrap by type and removing the scrap from the site.

The coal-fired units will be demolished in a phased and sequential manner to assure worker safety and to minimize any interferences with surrounding equipment. Please refer to the man-power loaded schedule and graphs in Appendix A for the details of each demolition phase.

3.3.2.1 *Phase 1 Demolition - Boiler and Turbine Equipment Removal*

Mechanical and electrical equipment and material inside the boiler and turbine building footprints will be removed. The goal of this phase is to remove the majority of the equipment in the boiler and turbine buildings leaving only the boiler, turbine, building, and support steel.

In this phase of the project, the switchyard is disconnected from the generating facility.

3.3.2.2 *Phase 2 Demolition - Boiler and Turbine Removal*

The boiler equipment will be removed at the start of this phase. Then, the boiler furnace and backpass will be removed from the bottom up (boilers are hung from the top of the boiler structure) and the structural steel is removed from the top down. Once the structural steel and all equipment are removed, the boiler equipment foundations will be demolished to existing grade.

In parallel with the above activities, the turbine, condenser neck heat exchangers, condenser, and miscellaneous turbine equipment will be removed. The turbine building and turbine pedestal is then demolished to grade.

3.3.2.3 *Phase 3 Demolition - Precipitator and AQCS Dismantlement*

If the unit has a precipitator, the precipitator will be removed similar to the process for removing the boiler. The precipitator internals will be removed from the bottom up and the precipitator structural steel will be removed from the top down. The precipitator foundation will be removed down to grade.

If the unit has a wet or dry scrubber and/or a baghouse, the dismantlement will start at the stack and work back towards the boiler to avoid dismantlement activities interferences.

3.3.2.4 *Phase 4 Demolition - Yard Demolition*

This phase removes equipment and materials external to the boiler and turbine areas. Underground piping, conduit, and duct banks will be abandoned in place with the exception of the circulating water pipe. The concrete reinforced circulating water pipes will be excavated, collapsed by crushing, and backfilled. Electrical man-holes will be collapsed by crushing and backfilled. Special care will be taken to assure that any materials left in the ground will not adversely impact site drainage.

3.3.2.5 *Phase 5 - Final Site Grading and Drainage*

Final grading and drainage includes a minimum amount of grading to assure that the site drainage facilities remain in place and includes final seeding of the site.

3.3.3 Dismantlement Activities for a Combustion Turbine Site

The demolition contractor will be structured into several crews that will bring equipment and materials to the ground. A separate dedicated crew will be responsible for classifying the scrap by type and removing the scrap from the site.

The combustion turbines, auxiliary equipment, and buildings will be demolished in a phased and sequential manner to assure worker safety and to minimize any interferences with surrounding equipment. Please refer to the man-power loaded schedule and graphs in Appendix A for the details of each demolition phase.

Final grading and drainage includes a minimum amount of grading to assure that the site drainage facilities remain in place and includes final seeding of the site.

3.3.4 Dismantlement Activities for Common Facilities

The demolition contractor will be structured into several crews that will bring equipment and materials to the ground. A separate dedicated crew will be responsible for classifying the scrap by type and removing the scrap from the site.

The common facilities dismantlement activities consist primarily of the removal of chimneys, fuel yard equipment, removal of site-specific common equipment, and the removal of facility buildings. The phasing of the common dismantlement processes are site specific and will be determined during the pre-dismantlement activity phase of the project.

Final grading and drainage includes a minimum amount of grading to assure that the site drainage facilities remain in place and includes final seeding of the site.

3.4 PROJECT CLOSURE ACTIVITIES

This phase of the project confirms that the remediation and reclamation of the site has been successfully complete and that all required "record" documentation needed by GMO is complete and on file.

3.5 SCRAP METAL VALUES

Scrap metal weights were developed for a 700-MW coal-fired unit based on the actual quantities and materials documented in the original construction documents. These scrap metal weights were applied to the other coal-fired units using the AACE International Capacity Factor Method.

Scrap metal weights for the combustion turbines, boilers, and turbine generators were based on weights for similar-sized equipment from previous Sega projects.

Please see Appendix B for the opinion of current average scrap values for each unit.

APPENDICES

APPENDIX A

OPINIONS OF COSTS BY UNITS

SIBLEY

SIBLEY STATION

The Sibley Generating Station consists of three coal-fired power plants.

Sibley Unit 1 has an SPP-accredited unit rating of 51 MW and was placed in service in 1960. Unit 1 has a sub-critical Babcock & Wilcox boiler and a Siemens turbine. River water is used for condenser cooling. Unit 1 has an electrostatic precipitator for particulate removal and an SNCR system for NO_X control.

Sibley Unit 2 has an SPP-accredited unit rating of 51 MW and was placed in service in 1962. Unit 2 has a sub-critical Babcock & Wilcox boiler and a General Electric turbine. River water is used for condenser cooling. Unit 2 has an electrostatic precipitator for particulate removal and an SNCR system for NO_X control.

Sibley Unit 3 has an SPP-accredited unit rating of 363.8 MW and was placed in service in 1969. Unit 3 has a super-critical Babcock & Wilcox boiler and a Siemens turbine. River water is used for condenser cooling. Unit 3 has an electrostatic precipitator for particulate removal and an SCR for NO_X control.

The Sibley common fuel yard has a bottom car dumper that can transfer fuel to either a bituminous fuel storage pile or a sub-bituminous fuel storage pile. The two different fuels can be blended prior to being transported to either the crusher house or to the blended pile. The blended pile has a reclaim system that can transport blended fuel to the crusher house. Crushed fuel is then transported to the Units 1, 2, and 3 silos. The fuel yard also has a tire chips storage and conveyor system that can transport tire chips to the Unit 3 silos.

All three Sibley units have a propane igniter system. The units are supplied with propane from common propane storage tanks and a common propane vaporizer.

All three units beneficially use coal combustion products off site. Coal combustion products that are not beneficially used off site are disposed of in the on-site solid waste landfill.

The following are the major systems and equipment that were included in the retirement and dismantlement of each unit and the major systems and equipment that were considered common (additional details are listed in the attached retirement and dismantlement schedules included in this Appendix).

SIBLEY UNIT 1

1. Boiler and boiler auxiliaries.
2. Turbine, heat balance equipment, and turbine auxiliaries.
3. Electrostatic precipitator.
4. Dedicated Unit 1 fuel handling equipment.
5. Dedicated Unit 1 propane equipment.
6. Dedicated Unit 1 SNCR process equipment.

SIBLEY UNIT 2

1. Boiler and boiler auxiliaries.
2. Turbine, heat balance equipment, and turbine auxiliaries.
3. Electrostatic precipitator.
4. Dedicated Unit 2 fuel handling equipment.
5. Dedicated Unit 2 propane equipment.
6. Dedicated Unit 2 SNCR process equipment.

SIBLEY UNIT 3

1. Boiler and boiler auxiliaries.
2. Turbine, heat balance equipment, and turbine auxiliaries.
3. Electrostatic precipitator.

4. Dedicated Unit 3 fuel handling equipment.
5. Dedicated Unit 3 propane equipment.
6. Dedicated Unit 3 SCR process equipment.

COMMON

1. Administration/Service building.
2. Fuel yard office building.
3. Temporary service building.
4. Warehouses.
5. Tractor shed and out building.
6. Water treatment and sewage treatment.
8. Common fuel handling equipment.
9. NO_X out ultra system
10. Fire water systems.
11. Stack.
12. Diesel generator.
13. Intake.

UNIT 1

Sibley Unit 1 Retirement

Owner Costs			
Pre-Retirement Activities		$100,821	
Retirement Activities		$240,134	
Post-Retirement Activities		$26,564	
Owner Direct Total			$367,519
Owner Internal Costs	5.00%		$18,376
Owner Contingency:	25.00%		$96,474

Sibley Unit 1 Retirement Opinion of Probable Cost: $482,368.69

Sibley Unit 1 Retirement Costs

ID	Task Name	Cost
1	**Sibley Unit 1 Retirement**	**$367,519.09**
2	**Pre-Engineering**	**$100,821.60**
3	Permit review and engineering analysis, establish isolation points, and confirn	$100,821.60
4	**KCL&L Overhead Costs**	**$83,646.00**
5	KCP&L Retirement Manager	$83,646.00
6	**Equipment Rentals**	**$28,339.20**
7	Vacuum truck	$28,339.20
8	**Retirement**	**$128,148.29**
9	**Electrical**	**$18,911.68**
10	**Medium and Low Voltage Draw out Switchgear**	**$2,679.84**
11	De-energize all buses at the source.	$446.64
12	Open all circuit breakers.	$446.64
13	Rack all circuit breakers into the fully withdrawn, disconnected position.	$446.64
14	Verify that the closing/tripping springs are discharged.	$446.64
15	De-energize control power and auxiliary power circuits of each circuit br	$893.28
16	**Motor Control Centers**	**$1,786.56**
17	De-energize all buses at the source.	$446.64
18	Open all circuit breakers and disconnect switches.	$446.64
19	Remove all fuses in control circuits.	$893.28
20	**Low-voltage Switchboards and Panelboards**	**$893.28**
21	De-energize all buses at the source.	$446.64
22	Open all circuit breakers and disconnect switches.	$446.64
23	**Oil-Filled Power Transformers**	**$5,549.44**
24	De-energize all transformer primaries and verify that the secondary is de	$893.28
25	De-energize all low-voltage AC or DC power sources for space heaters, c	$893.28
26	Drain and dispose of oil.	$2,642.88
27	Clean up and dispose of oil on surface areas around the transformers on	$1,120.00
28	**Dry-type Power Transformers**	**$1,786.56**
29	De-energize all transformer primaries and verify that the secondary is de	$893.28
30	De-energize all low-voltage AC or DC power sources for space heaters, c	$893.28
31	**Motors**	**$6,216.00**
32	De-energize all primary power at the source.	$1,786.56
33	De-energize all low-voltage power sources for space heaters or other au	$1,786.56
34	Drain lube oil system (if applicable) and dispose of oil.	$2,642.88
35	**Coal Handling**	**$29,248.24**
36	Isolate area K Unit 1 Silos.	$8,522.80
37	Confirm all fuel lines and feedrs are clear of coal and coal dust.	$1,685.44
38	Perform cleaning of the coal handling equipment to assure that all coal an	$19,040.00
39	**Propane Igniter System**	**$2,528.16**
40	Isolate lines from source, open and vent.	$2,528.16
41	**Boiler Chemical Feed**	**$1,685.44**
42	Drain all chemical feed tanks.	$1,685.44
43	**Boiler**	**$29,591.57**
44	Open boiler doors.	$880.96

Sibley Unit 1 Retirement Costs

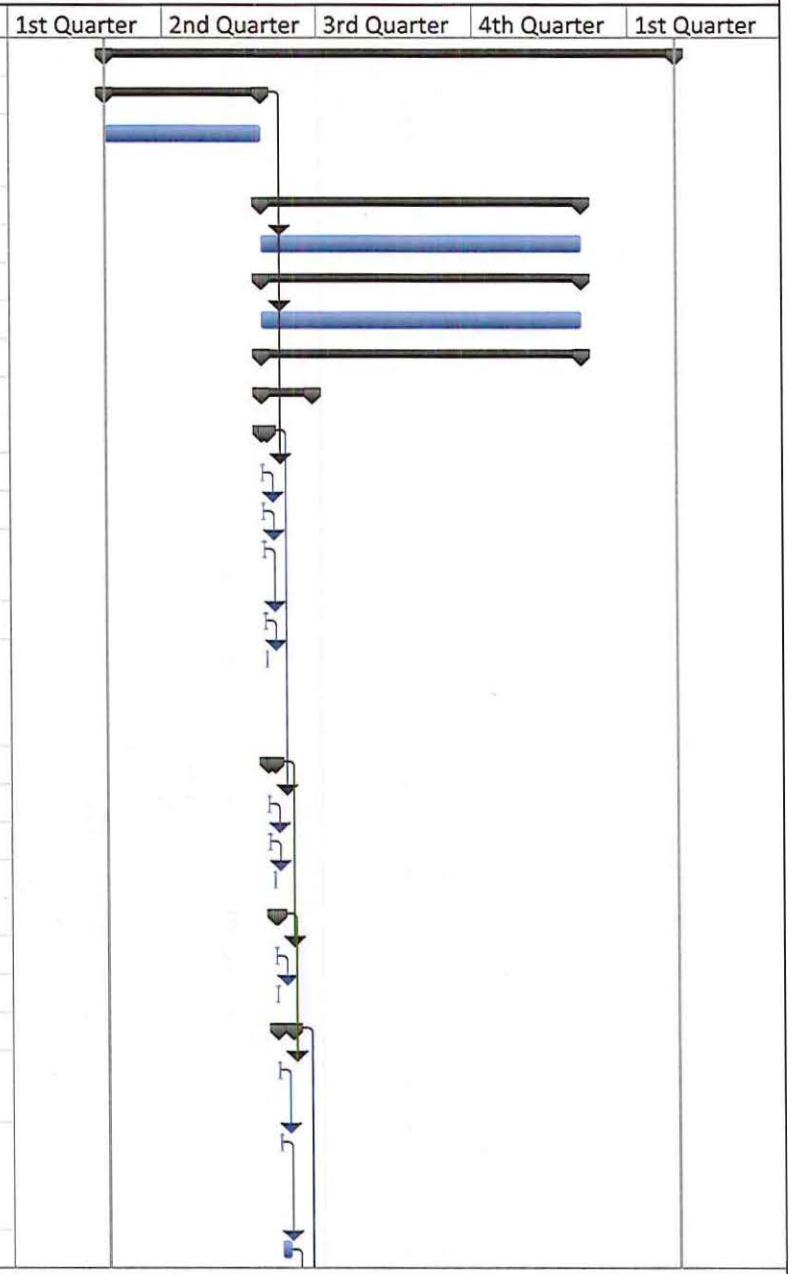
ID	Task Name	Cost
45	Gas side - perform cleaning of the boiler and bottom ash system.	$16,800.00
46	Drain boiler, drums, downcomers and headers.	$842.72
47	Open drum doors and blowdown tank doors.	$880.96
48	Drain and vent the service water and ash sluice water systems	$1,541.36
49	Clean bottom ash, economizer ash and fly ash system.	$2,480.13
50	Open, flush with water and vent the SNCR/RRI piping	$6,165.44
51	**Precipitator**	**$10,603.04**
52	Multiple cleaning cycles for collection plates.	$2,528.16
53	Clear hoppers of all ash	$2,805.44
54	Disconnect tranformers.	$1,786.56
55	Mechanically secure all compartment dampers and hopper outlet valves in	$720.48
56	Disconnect ash transport piping and washdown hoppers and interior of cas	$1,000.48
57	Install bird screens across hopper ash outlet and ash line flanges.	$880.96
58	Padlock or tack weld all hopper doors shut. (note: if ash hopper doors are i	$880.96
59	**Ductwork**	**$6,480.96**
60	Open ductwork doors.	$880.96
61	Perform extensive cleaning of the ductwork.	$5,600.00
62	Isolate ductwork at tie to ductwork common to Unit 2	$0.00
63	**Condensate and Feedwater Piping**	**$2,528.16**
64	Drain water from the system.	$842.72
65	Leave open vents and drains.	$842.72
66	Drain, open and vent condensate storage tanks	$842.72
67	**Feedwater heaters**	**$2,528.16**
68	Drain feedwater heaters	$842.72
69	Leave open vents and drains.	$1,685.44
70	**Turbine and Condenser**	**$4,385.68**
71	Drain hotwell and leave doors open.	$861.84
72	Open main turbine doors.	$880.96
73	Remove lube oil.	$2,642.88
74	Drain Gland Water Tank and Condensate Collection Tank	$0.00
75	**Generator**	**$6,095.76**
76	Verify that generator circuit breaker is open and racked out or that high-vo	$446.64
77	Verify that generator field breaker or contactor (if applicable) is open.	$446.64
78	De-energize power supplies to generator excitation system at the source.	$446.64
79	De-energize AC and DC power supplies to generator and exciter space heat	$446.64
80	Drain generator and exciter cooling water systems (if applicable).	$861.84
81	Disconnect and remove hydrogen gas tanks and purge generator hydrogen	$1,685.44
82	Disconnect and remove fire protection system gas/foam tanks and purge fi	$1,761.92
83	**Circulation Water and Turbine Cooling Water System**	**$3,409.12**
84	Drain.	$1,685.44
85	Open water box doors.	$880.96
86	Drain any circulating water chemical feed tanks.	$842.72
87	**Compressed Air System**	**$842.72**
88	Open vents and drains.	$842.72

Sibley Unit 1 Retirement Costs

ID	Task Name	Cost
89	**Auxiliary Steam System**	**$2,528.16**
90	Drain water from system.	$842.72
91	Open and vent F.D. Fan Steam Coils	$1,685.44
92	**Bearing Cooling Water and Boiler Cooling Water System**	**$842.72**
93	Drain water from system and vent.	$842.72
94	**Condenser Air Extraction System**	**$842.72**
95	Drain water from system.	$842.72
96	**Building Heating System**	**$842.72**
97	Drain water from system.	$842.72
98	**Battery System**	**$4,253.28**
99	De-energize all battery chargers from the source.	$446.64
100	Open all AC and DC circuit breakers and/or fused switches on battery charg	$446.64
101	Remove and dispose of battery electrolyte.	$1,680.00
102	Remove and dispose of battery cells.	$1,120.00
103	Clean up and dispose of electrolyte on surface areas around batteries.	$560.00
104	**Post Retirement Activities**	**$26,564.00**
105	Post Retirement Activities	$26,564.00

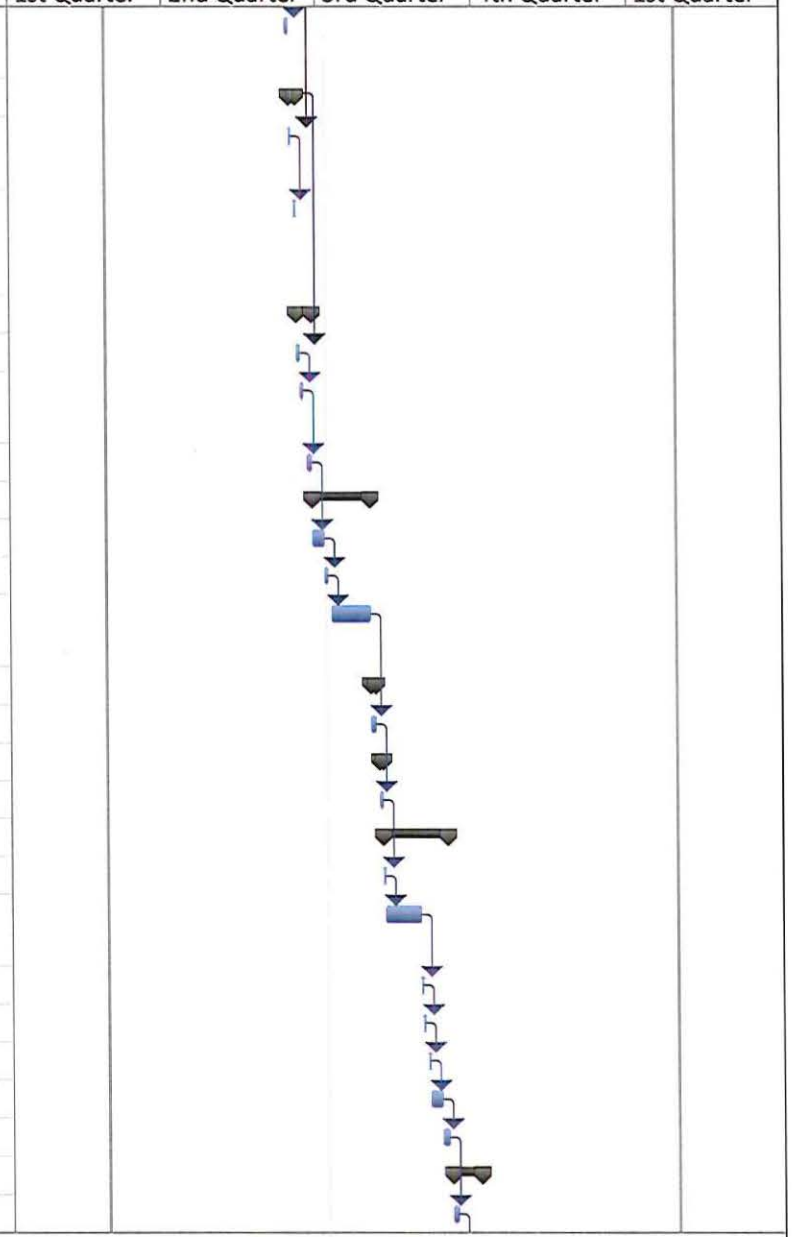
Sibley Unit 1 Retirement

ID	Task Name	Duration
1	**Sibley Unit 1 Retirement**	**241 days**
2	**Pre-Engineering**	**66 days**
3	Permit review and engineering analysis, establish isolation points, and confirm fuel yard inventory has been reduced to zero tons.	66 days
4	**KCL&L Overhead Costs**	**135 days**
5	KCP&L Retirement Manager	135 days
6	**Equipment Rentals**	**135 days**
7	Vacuum truck	135 days
8	**Retirement**	**135 days**
9	**Electrical**	**22 days**
10	**Medium and Low Voltage Draw out Switchgear**	**3 days**
11	De-energize all buses at the source.	0.5 days
12	Open all circuit breakers.	0.5 days
13	Rack all circuit breakers into the fully withdrawn, disconnected position.	0.5 days
14	Verify that the closing/tripping springs are discharged.	0.5 days
15	De-energize control power and auxiliary power circuits of each circuit breaker at the source and by opening control power circuit breakers or removing fuses in each breaker cubicle.	1 day
16	**Motor Control Centers**	**2 days**
17	De-energize all buses at the source.	0.5 days
18	Open all circuit breakers and disconnect switches.	0.5 days
19	Remove all fuses in control circuits.	1 day
20	**Low-voltage Switchboards and Panelboards**	**1 day**
21	De-energize all buses at the source.	0.5 days
22	Open all circuit breakers and disconnect switches.	0.5 days
23	**Oil-Filled Power Transformers**	**7 days**
24	De-energize all transformer primaries and verify that the secondary is de-energized.	1 day
25	De-energize all low-voltage AC or DC power sources for space heaters, cooling equipment, controls, etc. at the source and open circuit breakers or remove fuses at transformer end.	1 day
26	Drain and dispose of oil.	3 days



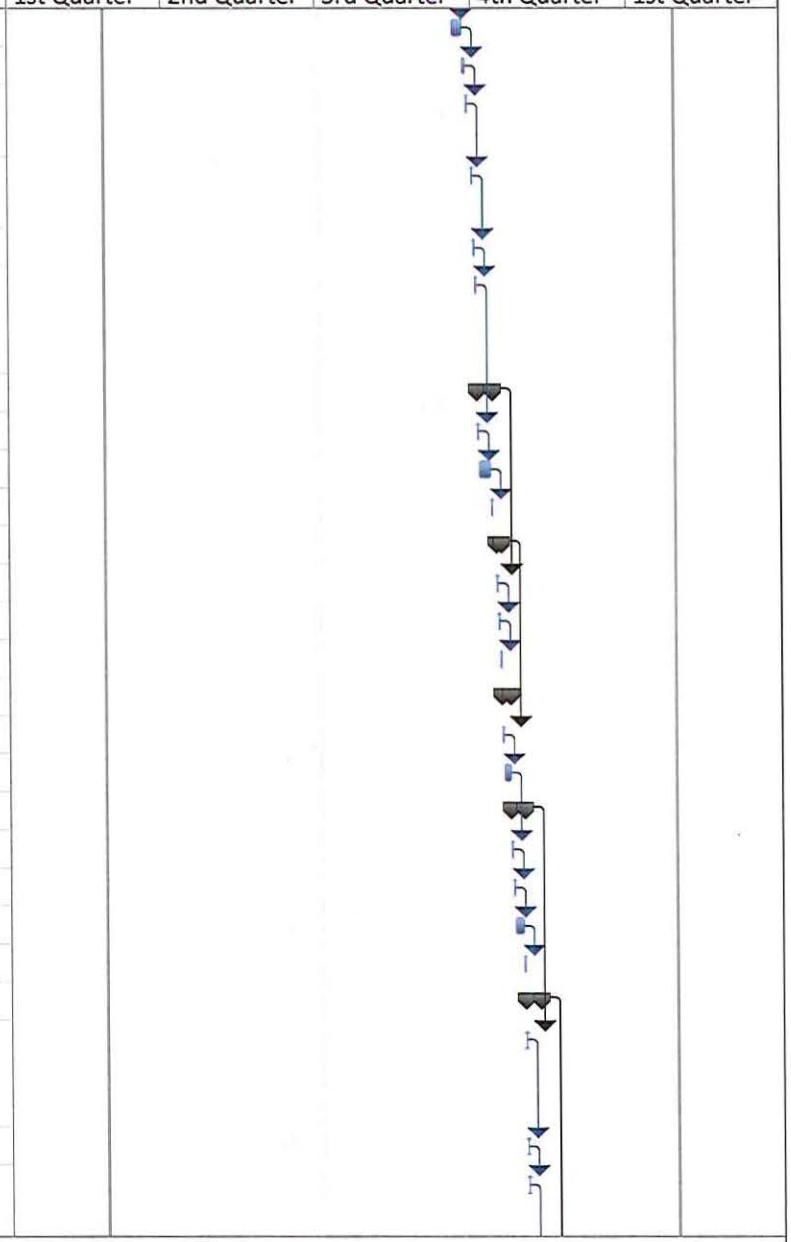
Sibley Unit 1 Retirement

ID	Task Name	Duration
27	Clean up and dispose of oil on surface areas around the transformers on in containment pits.	2 days
28	**Dry-type Power Transformers**	**2 days**
29	De-energize all transformer primaries and verify that the secondary is de-energized.	1 day
30	De-energize all low-voltage AC or DC power sources for space heaters, cooling equipment, controls, etc. at the source and open circuit breakers or remove fuses at transformer end.	1 day
31	**Motors**	**7 days**
32	De-energize all primary power at the source.	2 days
33	De-energize all low-voltage power sources for space heaters or other auxiliary equipment at the source.	2 days
34	Drain lube oil system (if applicable) and dispose of oil.	3 days
35	**Coal Handling**	**24 days**
36	Isolate area K Unit 1 Silos.	5 days
37	Confirm all fuel lines and feedrs are clear of coal and coal dust.	2 days
38	Perform cleaning of the coal handling equipment to assure that all coal and coal dust has been removed from site.	17 days
39	**Propane Igniter System**	**3 days**
40	Isolate lines from source, open and vent.	3 days
41	**Boiler Chemical Feed**	**2 days**
42	Drain all chemical feed tanks.	2 days
43	**Boiler**	**28 days**
44	Open boiler doors.	1 day
45	Gas side - perform cleaning of the boiler and bottom ash system.	15 days
46	Drain boiler, drums, downcomers and headers.	1 day
47	Open drum doors and blowdown tank doors.	1 day
48	Drain and vent the service water and ash sluice water systems	1 day
49	Clean bottom ash, economizer ash and fly ash system.	5 days
50	Open, flush with water and vent the SNCR/RRI piping	4 days
51	**Precipitator**	**13 days**
52	Multiple cleaning cycles for collection plates.	3 days



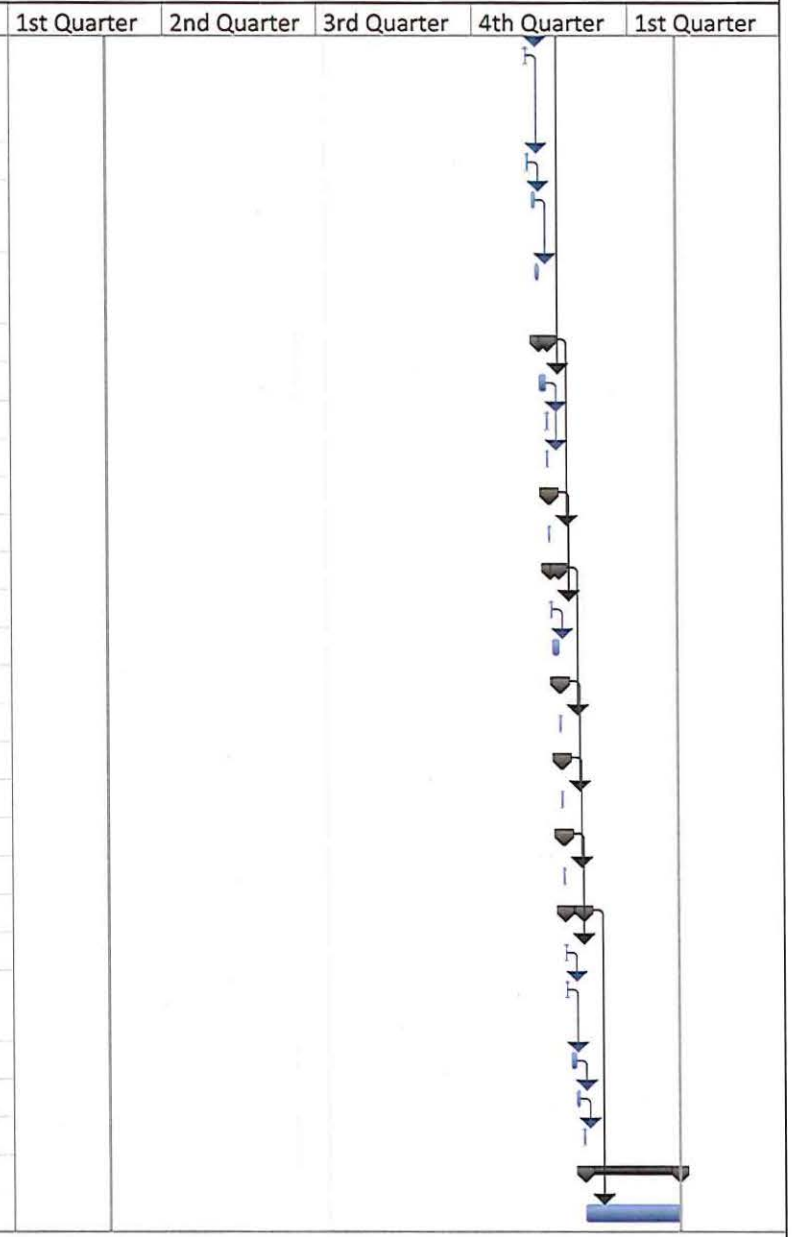
Sibley Unit 1 Retirement

ID	Task Name	Duration
53	Clear hoppers of all ash	4 days
54	Disconnect tranformers.	2 days
55	Mechanically secure all compartment dampers and hopper outlet valves in open position.	1 day
56	Disconnect ash transport piping and washdown hoppers and interior of casing.	1 day
57	Install bird screens across hopper ash outlet and ash line flanges.	1 day
58	Padlock or tack weld all hopper doors shut. (note: if ash hopper doors are indoors, they could be removed and the opening covered with bird screens.)	1 day
59	**Ductwork**	**7 days**
60	Open ductwork doors.	1 day
61	Perform extensive cleaning of the ductwork.	5 days
62	Isolate ductwork at tie to ductwork common to Unit 2	1 day
63	**Condensate and Feedwater Piping**	**3 days**
64	Drain water from the system.	1 day
65	Leave open vents and drains.	1 day
66	Drain, open and vent condensate storage tanks	1 day
67	**Feedwater heaters**	**3 days**
68	Drain feedwater heaters	1 day
69	Leave open vents and drains.	2 days
70	**Turbine and Condenser**	**6 days**
71	Drain hotwell and leave doors open.	1 day
72	Open main turbine doors.	1 day
73	Remove lube oil.	3 days
74	Drain Gland Water Tank and Condensate Collection Tank	1 day
75	**Generator**	**7 days**
76	Verify that generator circuit breaker is open and racked out or that high-voltage disconnect switch on substation side of GSU transformer is locked in the open position.	0.5 days
77	Verify that generator field breaker or contactor (if applicable) is op	0.5 days
78	De-energize power supplies to generator excitation system at the source.	0.5 days



Sibley Unit 1 Retirement

ID	Task Name	Duration
79	De-energize AC and DC power supplies to generator and exciter space heaters, cooling equipment, controls, lighting, etc. at the source and open circuit breakers or remove fuses at the generator	0.5 days
80	Drain generator and exciter cooling water systems (if applicable).	1 day
81	Disconnect and remove hydrogen gas tanks and purge generator hydrogen system.	2 days
82	Disconnect and remove fire protection system gas/foam tanks and purge fire protection system.	2 days
83	**Circulation Water and Turbine Cooling Water System**	**3 days**
84	Drain.	2 days
85	Open water box doors.	1 day
86	Drain any circulating water chemical feed tanks.	1 day
87	**Compressed Air System**	**1 day**
88	Open vents and drains.	1 day
89	**Auxiliary Steam System**	**3 days**
90	Drain water from system.	1 day
91	Open and vent F.D. Fan Steam Coils	2 days
92	**Bearing Cooling Water and Boiler Cooling Water System**	**1 day**
93	Drain water from system and vent.	1 day
94	**Condenser Air Extraction System**	**1 day**
95	Drain water from system.	1 day
96	**Building Heating System**	**1 day**
97	Drain water from system.	1 day
98	**Battery System**	**7 days**
99	De-energize all battery chargers from the source.	0.5 days
100	Open all AC and DC circuit breakers and/or fused switches on battery chargers and disconnect cables from batteries.	0.5 days
101	Remove and dispose of battery electrolyte.	3 days
102	Remove and dispose of battery cells.	2 days
103	Clean up and dispose of electrolyte on surface areas around batteri	1 day
104	**Post Retirement Activities**	**40 days**
105	Post Retirement Activities	40 days



Sibley Unit 1 Dismantlement

Owner Costs				
Pre-Dismantlement Activities			$892,760	
Overhead During Dismantlement			$492,984	
Post-Dismantlement Activities			$49,140	
Owner Costs Total*				$1,434,884
Demolition General Contractor (DGC) Costs				
Site Management			$268,729	
Equipment Rental			$457,572	
Consummables			$456,510	
Scrap Crew(s)			$452,980	
Dismantlement			$1,008,001	
Contractor Direct Cost*		$2,643,792		
Contractor Allowances				
DGC Insurance	2.00%		$52,876	
Contingency/Profit	15.00%		$404,500	
Performance Bond	2.00%		$62,023.36	
Contractor Costs Total:				$3,163,191
Total:				$4,598,075
Owner Internal Costs:	5.00%			$229,904
Owner Contingency:	25.00%			$1,206,995
Sibley Unit 1 Dismantlement Opinion of Probable Cost:				$6,034,974

*Owner Costs Total + Contractor Direct Costs = Manpower Loaded Schedule Total w/o Contractor Allowances
= $4,078,676

UNIT 2

Sibley Unit 2 Retirement

Owner Costs			
Pre-Retirement Activities		$100,821	
Retirement Activities		$240,134	
Post-Retirement Activities		$26,564	
Owner Direct Total			$367,519
Owner Internal Costs	5.00%		$18,376
Owner Contingency:	25.00%		$96,474
Sibley Unit 2 Retirement Opinion of Probable Cost:			$482,368.69

Sibley Unit 2 Retirement

ID	Task Name	Cost
1	**Sibley Unit 2 Retirement**	**$367,519.09**
2	**Pre-Engineering**	**$100,821.60**
3	Permit review and engineering analysis, establish isolation points, and confirn	$100,821.60
4	**KCL&L Overhead Costs**	**$83,646.00**
5	KCP&L Retirement Manager	$83,646.00
6	**Equipment Rentals**	**$28,339.20**
7	Vacuum truck	$28,339.20
8	**Retirement**	**$128,148.29**
9	**Electrical**	**$18,911.68**
10	**Medium and Low Voltage Draw out Switchgear**	**$2,679.84**
11	De-energize all buses at the source.	$446.64
12	Open all circuit breakers.	$446.64
13	Rack all circuit breakers into the fully withdrawn, disconnected position.	$446.64
14	Verify that the closing/tripping springs are discharged.	$446.64
15	De-energize control power and auxiliary power circuits of each circuit br	$893.28
16	**Motor Control Centers**	**$1,786.56**
17	De-energize all buses at the source.	$446.64
18	Open all circuit breakers and disconnect switches.	$446.64
19	Remove all fuses in control circuits.	$893.28
20	**Low-voltage Switchboards and Panelboards**	**$893.28**
21	De-energize all buses at the source.	$446.64
22	Open all circuit breakers and disconnect switches.	$446.64
23	**Oil-Filled Power Transformers**	**$5,549.44**
24	De-energize all transformer primaries and verify that the secondary is de	$893.28
25	De-energize all low-voltage AC or DC power sources for space heaters, c	$893.28
26	Drain and dispose of oil.	$2,642.88
27	Clean up and dispose of oil on surface areas around the transformers on	$1,120.00
28	**Dry-type Power Transformers**	**$1,786.56**
29	De-energize all transformer primaries and verify that the secondary is de	$893.28
30	De-energize all low-voltage AC or DC power sources for space heaters, c	$893.28
31	**Motors**	**$6,216.00**
32	De-energize all primary power at the source.	$1,786.56
33	De-energize all low-voltage power sources for space heaters or other au	$1,786.56
34	Drain lube oil system (if applicable) and dispose of oil.	$2,642.88
35	**Coal Handling**	**$29,248.24**
36	Isolate area K Unit 1 Silos.	$8,522.80
37	Confirm all fuel lines and feedrs are clear of coal and coal dust.	$1,685.44
38	Perform cleaning of the coal handling equipment to assure that all coal an	$19,040.00
39	**Propane Igniter System**	**$2,528.16**
40	Isolate lines from source, open and vent.	$2,528.16
41	**Boiler Chemical Feed**	**$1,685.44**
42	Drain all chemical feed tanks.	$1,685.44
43	**Boiler**	**$29,591.57**
44	Open boiler doors.	$880.96

Sibley Unit 2 Retirement

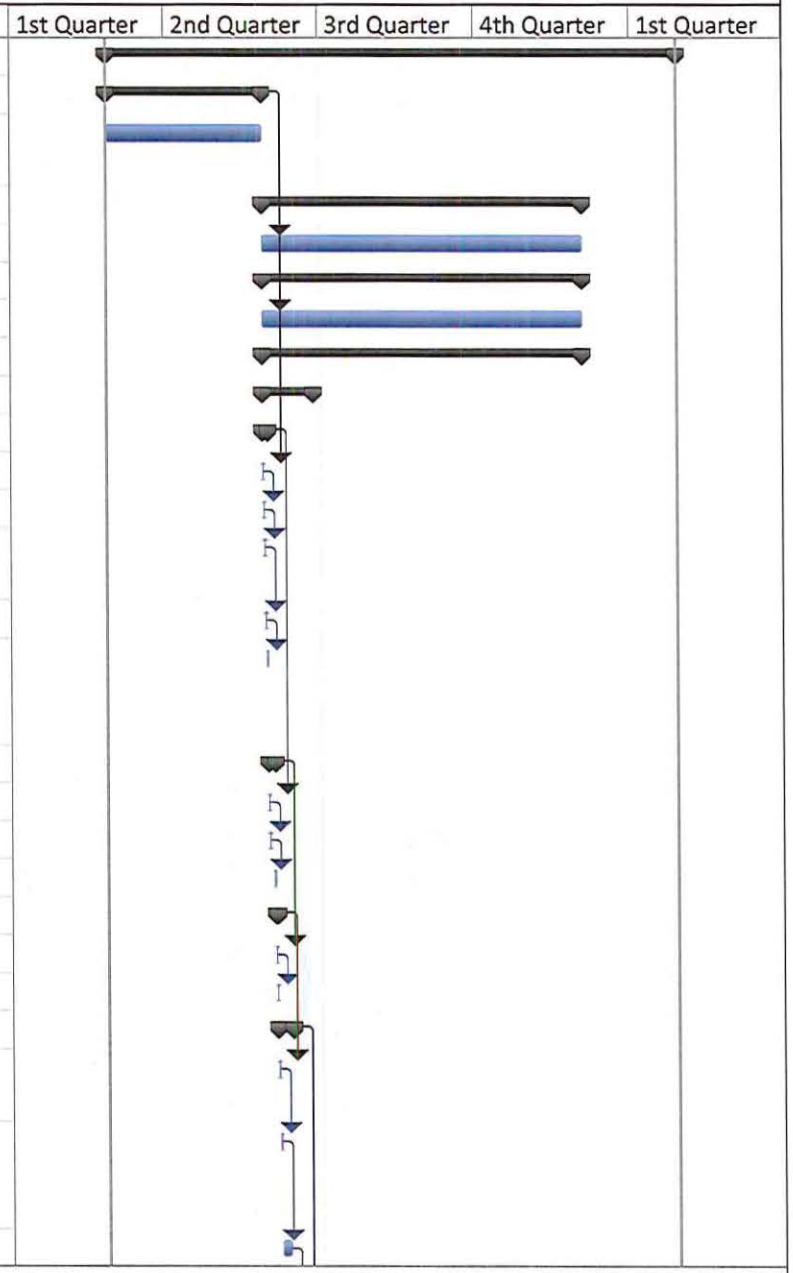
ID	Task Name	Cost
45	Gas side - perform cleaning of the boiler and bottom ash system.	$16,800.00
46	Drain boiler, drums, downcomers and headers.	$842.72
47	Open drum doors and blowdown tank doors.	$880.96
48	Drain and vent the service water and ash sluice water systems	$1,541.36
49	Clean bottom ash, economizer ash and fly ash system.	$2,480.13
50	Open, flush with water and vent the SNCR/RRI piping	$6,165.44
51	**Precipitator**	**$10,603.04**
52	Multiple cleaning cycles for collection plates.	$2,528.16
53	Clear hoppers of all ash	$2,805.44
54	Disconnect tranformers.	$1,786.56
55	Mechanically secure all compartment dampers and hopper outlet valves in	$720.48
56	Disconnect ash transport piping and washdown hoppers and interior of cas	$1,000.48
57	Install bird screens across hopper ash outlet and ash line flanges.	$880.96
58	Padlock or tack weld all hopper doors shut. (note: if ash hopper doors are i	$880.96
59	**Ductwork**	**$6,480.96**
60	Open ductwork doors.	$880.96
61	Perform extensive cleaning of the ductwork.	$5,600.00
62	Isolate ductwork at tie to ductwork common to Unit 2	$0.00
63	**Condensate and Feedwater Piping**	**$2,528.16**
64	Drain water from the system.	$842.72
65	Leave open vents and drains.	$842.72
66	Drain, open and vent condensate storage tanks	$842.72
67	**Feedwater heaters**	**$2,528.16**
68	Drain feedwater heaters	$842.72
69	Leave open vents and drains.	$1,685.44
70	**Turbine and Condenser**	**$4,385.68**
71	Drain hotwell and leave doors open.	$861.84
72	Open main turbine doors.	$880.96
73	Remove lube oil.	$2,642.88
74	Drain Gland Water Tank and Condensate Collection Tank	$0.00
75	**Generator**	**$6,095.76**
76	Verify that generator circuit breaker is open and racked out or that high-vo	$446.64
77	Verify that generator field breaker or contactor (if applicable) is open.	$446.64
78	De-energize power supplies to generator excitation system at the source.	$446.64
79	De-energize AC and DC power supplies to generator and exciter space heat	$446.64
80	Drain generator and exciter cooling water systems (if applicable).	$861.84
81	Disconnect and remove hydrogen gas tanks and purge generator hydrogen	$1,685.44
82	Disconnect and remove fire protection system gas/foam tanks and purge fi	$1,761.92
83	**Circulation Water and Turbine Cooling Water System**	**$3,409.12**
84	Drain.	$1,685.44
85	Open water box doors.	$880.96
86	Drain any circulating water chemical feed tanks.	$842.72
87	**Compressed Air System**	**$842.72**
88	Open vents and drains.	$842.72

Sibley Unit 2 Retirement

ID	Task Name	Cost
89	**Auxiliary Steam System**	**$2,528.16**
90	Drain water from system.	$842.72
91	Open and vent F.D. Fan Steam Coils	$1,685.44
92	**Bearing Cooling Water and Boiler Cooling Water System**	**$842.72**
93	Drain water from system and vent.	$842.72
94	**Condenser Air Extraction System**	**$842.72**
95	Drain water from system.	$842.72
96	**Building Heating System**	**$842.72**
97	Drain water from system.	$842.72
98	**Battery System**	**$4,253.28**
99	De-energize all battery chargers from the source.	$446.64
100	Open all AC and DC circuit breakers and/or fused switches on battery charg	$446.64
101	Remove and dispose of battery electrolyte.	$1,680.00
102	Remove and dispose of battery cells.	$1,120.00
103	Clean up and dispose of electrolyte on surface areas around batteries.	$560.00
104	**Post Retirement Activities**	**$26,564.00**
105	Post Retirement Activities	$26,564.00

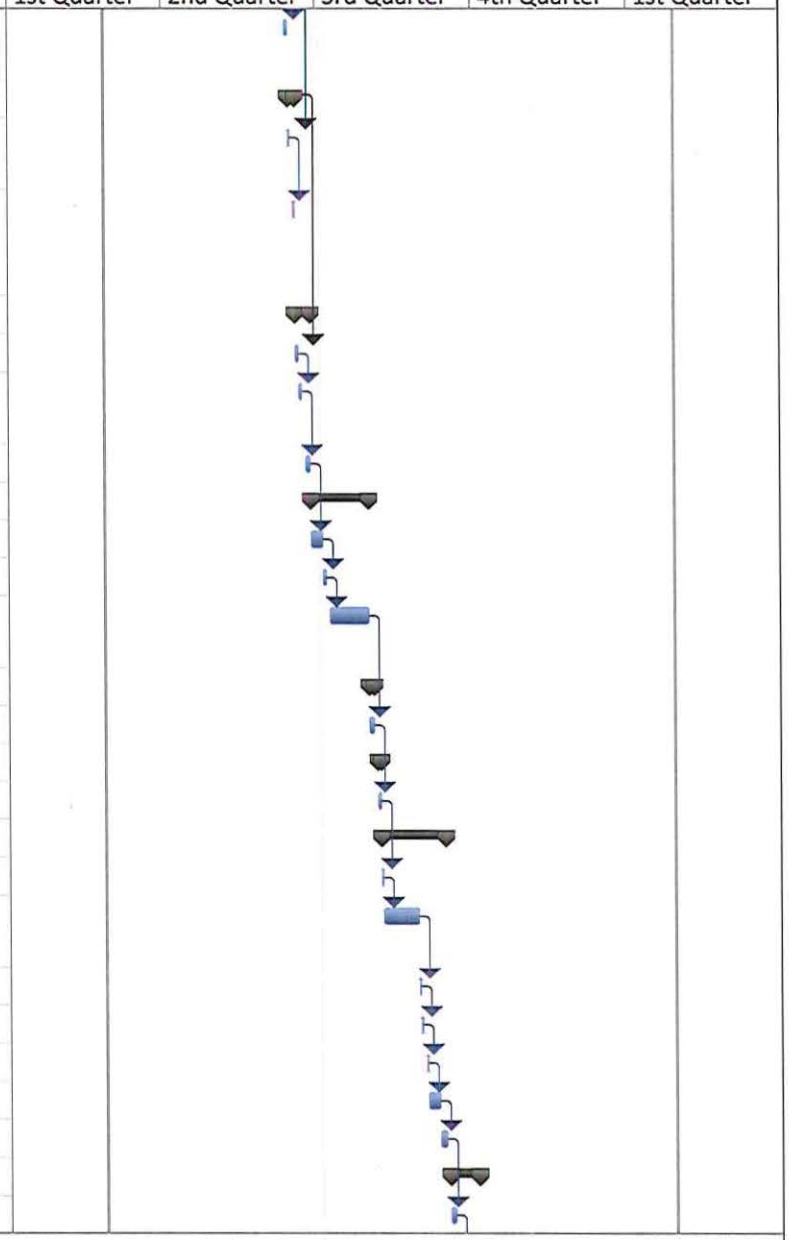
Sibley Unit 2 Retirement

ID	Task Name	Duration
1	**Sibley Unit 2 Retirement**	**241 days**
2	**Pre-Engineering**	**66 days**
3	Permit review and engineering analysis, establish isolation points, and confirm fuel yard inventory has been reduced to zero tons.	66 days
4	**KCL&L Overhead Costs**	**135 days**
5	KCP&L Retirement Manager	135 days
6	**Equipment Rentals**	**135 days**
7	Vacuum truck	135 days
8	**Retirement**	**135 days**
9	**Electrical**	**22 days**
10	**Medium and Low Voltage Draw out Switchgear**	**3 days**
11	De-energize all buses at the source.	0.5 days
12	Open all circuit breakers.	0.5 days
13	Rack all circuit breakers into the fully withdrawn, disconnected position.	0.5 days
14	Verify that the closing/tripping springs are discharged.	0.5 days
15	De-energize control power and auxiliary power circuits of each circuit breaker at the source and by opening control power circuit breakers or removing fuses in each breaker cubicle.	1 day
16	**Motor Control Centers**	**2 days**
17	De-energize all buses at the source.	0.5 days
18	Open all circuit breakers and disconnect switches.	0.5 days
19	Remove all fuses in control circuits.	1 day
20	**Low-voltage Switchboards and Panelboards**	**1 day**
21	De-energize all buses at the source.	0.5 days
22	Open all circuit breakers and disconnect switches.	0.5 days
23	**Oil-Filled Power Transformers**	**7 days**
24	De-energize all transformer primaries and verify that the secondary is de-energized.	1 day
25	De-energize all low-voltage AC or DC power sources for space heaters, cooling equipment, controls, etc. at the source and open circuit breakers or remove fuses at transformer end.	1 day
26	Drain and dispose of oil.	3 days



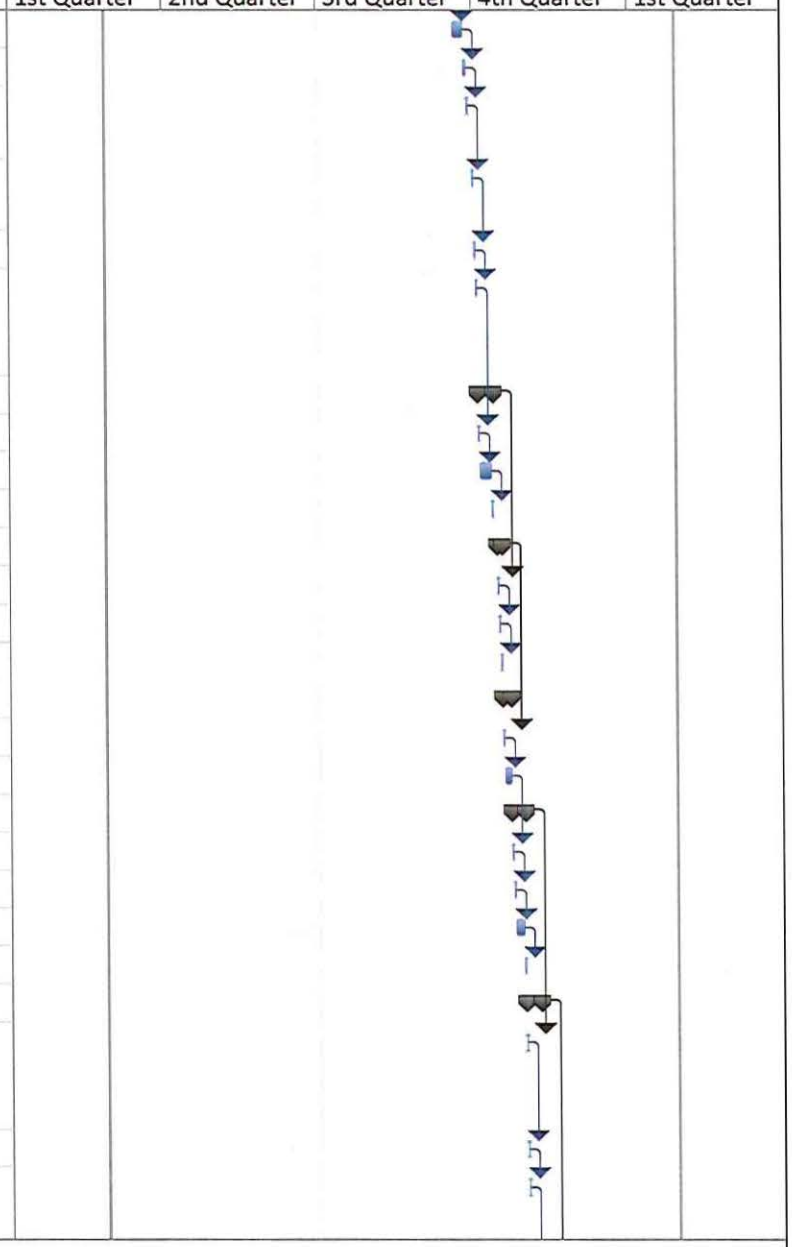
Sibley Unit 2 Retirement

ID	Task Name	Duration
27	Clean up and dispose of oil on surface areas around the transformers on in containment pits.	2 days
28	**Dry-type Power Transformers**	**2 days**
29	De-energize all transformer primaries and verify that the secondary is de-energized.	1 day
30	De-energize all low-voltage AC or DC power sources for space heaters, cooling equipment, controls, etc. at the source and open circuit breakers or remove fuses at transformer end.	1 day
31	**Motors**	**7 days**
32	De-energize all primary power at the source.	2 days
33	De-energize all low-voltage power sources for space heaters or other auxiliary equipment at the source.	2 days
34	Drain lube oil system (if applicable) and dispose of oil.	3 days
35	**Coal Handling**	**24 days**
36	Isolate area K Unit 1 Silos.	5 days
37	Confirm all fuel lines and feedrs are clear of coal and coal dust.	2 days
38	Perform cleaning of the coal handling equipment to assure that all coal and coal dust has been removed from site.	17 days
39	**Propane Igniter System**	**3 days**
40	Isolate lines from source, open and vent.	3 days
41	**Boiler Chemical Feed**	**2 days**
42	Drain all chemical feed tanks.	2 days
43	**Boiler**	**28 days**
44	Open boiler doors.	1 day
45	Gas side - perform cleaning of the boiler and bottom ash system.	15 days
46	Drain boiler, drums, downcomers and headers.	1 day
47	Open drum doors and blowdown tank doors.	1 day
48	Drain and vent the service water and ash sluice water systems	1 day
49	Clean bottom ash, economizer ash and fly ash system.	5 days
50	Open, flush with water and vent the SNCR/RRI piping	4 days
51	**Precipitator**	**13 days**
52	Multiple cleaning cycles for collection plates.	3 days



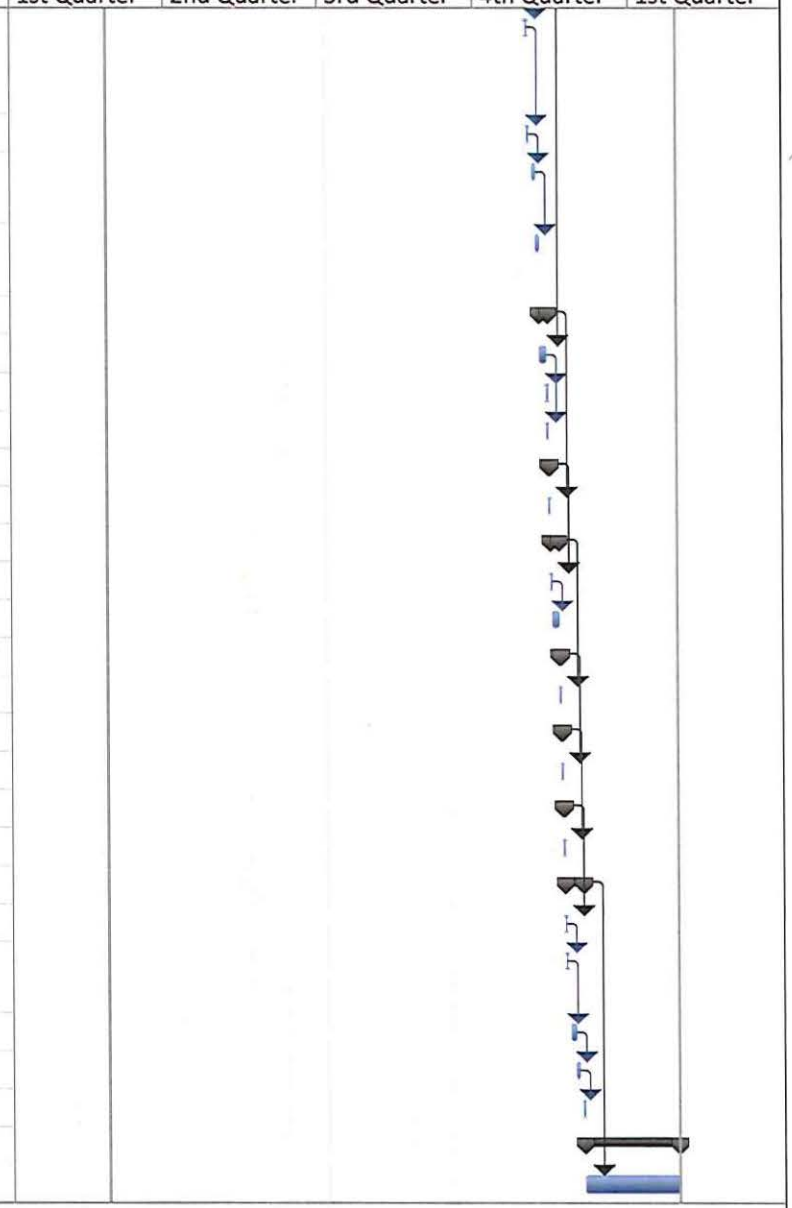
Sibley Unit 2 Retirement

ID	Task Name	Duration
53	Clear hoppers of all ash	4 days
54	Disconnect tranformers.	2 days
55	Mechanically secure all compartment dampers and hopper outlet valves in open position.	1 day
56	Disconnect ash transport piping and washdown hoppers and interior of casing.	1 day
57	Install bird screens across hopper ash outlet and ash line flanges.	1 day
58	Padlock or tack weld all hopper doors shut. (note: if ash hopper doors are indoors, they could be removed and the opening covered with bird screens.)	1 day
59	**Ductwork**	**7 days**
60	Open ductwork doors.	1 day
61	Perform extensive cleaning of the ductwork.	5 days
62	Isolate ductwork at tie to ductwork common to Unit 2	1 day
63	**Condensate and Feedwater Piping**	**3 days**
64	Drain water from the system.	1 day
65	Leave open vents and drains.	1 day
66	Drain, open and vent condensate storage tanks	1 day
67	**Feedwater heaters**	**3 days**
68	Drain feedwater heaters	1 day
69	Leave open vents and drains.	2 days
70	**Turbine and Condenser**	**6 days**
71	Drain hotwell and leave doors open.	1 day
72	Open main turbine doors.	1 day
73	Remove lube oil.	3 days
74	Drain Gland Water Tank and Condensate Collection Tank	1 day
75	**Generator**	**7 days**
76	Verify that generator circuit breaker is open and racked out or that high-voltage disconnect switch on substation side of GSU transformer is locked in the open position.	0.5 days
77	Verify that generator field breaker or contactor (if applicable) is op	0.5 days
78	De-energize power supplies to generator excitation system at the source.	0.5 days



Sibley Unit 2 Retirement

ID	Task Name	Duration
79	De-energize AC and DC power supplies to generator and exciter space heaters, cooling equipment, controls, lighting, etc. at the source and open circuit breakers or remove fuses at the generator	0.5 days
80	Drain generator and exciter cooling water systems (if applicable).	1 day
81	Disconnect and remove hydrogen gas tanks and purge generator hydrogen system.	2 days
82	Disconnect and remove fire protection system gas/foam tanks and purge fire protection system.	2 days
83	**Circulation Water and Turbine Cooling Water System**	**3 days**
84	Drain.	2 days
85	Open water box doors.	1 day
86	Drain any circulating water chemical feed tanks.	1 day
87	**Compressed Air System**	**1 day**
88	Open vents and drains.	1 day
89	**Auxiliary Steam System**	**3 days**
90	Drain water from system.	1 day
91	Open and vent F.D. Fan Steam Coils	2 days
92	**Bearing Cooling Water and Boiler Cooling Water System**	**1 day**
93	Drain water from system and vent.	1 day
94	**Condenser Air Extraction System**	**1 day**
95	Drain water from system.	1 day
96	**Building Heating System**	**1 day**
97	Drain water from system.	1 day
98	**Battery System**	**7 days**
99	De-energize all battery chargers from the source.	0.5 days
100	Open all AC and DC circuit breakers and/or fused switches on battery chargers and disconnect cables from batteries.	0.5 days
101	Remove and dispose of battery electrolyte.	3 days
102	Remove and dispose of battery cells.	2 days
103	Clean up and dispose of electrolyte on surface areas around batteri	1 day
104	**Post Retirement Activities**	**40 days**
105	Post Retirement Activities	40 days



Sibley Unit 2 Dismantlement

Owner Costs					
	Pre-Dismantlement Activities			$892,760	
	Overhead During Dismantlement			$492,984	
	Post-Dismantlement Activities			$49,140	
	Owner Costs Total*				$1,434,884
Demolition General Contractor (DGC) Costs					
	Site Management			$268,729	
	Equipment Rental			$457,572	
	Consummables			$456,510	
	Scrap Crew(s)			$452,980	
	Dismantlement			$1,008,001	
	Contractor Direct Cost*		$2,643,792		
	Contractor Allowances				
	DGC Insurance	2.00%		$52,876	
	Contingency/Profit	15.00%		$404,500	
	Performance Bond	2.00%		$62,023.36	
	Contractor Costs Total:				$3,163,191
Total:					$4,598,075
Owner Internal Costs:		5.00%			$229,904
Owner Contingency:		25.00%			$1,206,995
Sibley Unit 2 Dismantlement Opinion of Probable Cost:					$6,034,974

*Owner Costs Total + Contractor Direct Costs = Manpower Loaded Schedule Total w/o Contractor Allowances
= $4,078,676

UNIT 3

Sibley Unit 3 Retirement

Owner Costs			
Pre-Retirement Activities		$100,821	
Retirement Activities		$280,964	
Post-Retirement Activities		$26,564	
Owner Direct Total			$408,349
Owner Internal Costs	5.00%		$20,417
Owner Contingency:	25.00%		$107,192

Sibley Unit 3 Retirement Opinion of Probable Cost: $535,958.06

Sibley Unit 3 Retirement

ID	Task Name	Cost
1	**Sibley Unit 3 Retirement**	**$408,350.61**
2	**Pre-Engineering**	**$100,821.60**
3	Permit review and engineering analysis, establish isolation points, and confirm fuel yard inventory has been reduced to zero tons.	$100,821.60
4	**KCL&L Overhead Costs**	**$99,755.60**
5	KCP&L Retirement Manager	$99,755.60
6	**Equipment Rentals**	**$33,797.12**
7	Vacuum truck	$33,797.12
8	**Retirement**	**$147,412.29**
9	**Electrical**	**$18,911.68**
10	**Medium and Low Voltage Draw out Switchgear**	**$2,679.84**
11	De-energize all buses at the source.	$446.64
12	Open all circuit breakers.	$446.64
13	Rack all circuit breakers into the fully withdrawn, disconnected position.	$446.64
14	Verify that the closing/tripping springs are discharged.	$446.64
15	De-energize control power and auxiliary power circuits of each circuit breaker at the source and by opening control power circuit breakers or removing fuses in each breaker cubicle.	$893.28
16	**Motor Control Centers**	**$1,786.56**
17	De-energize all buses at the source.	$446.64
18	Open all circuit breakers and disconnect switches.	$446.64
19	Remove all fuses in control circuits.	$893.28
20	**Low-voltage Switchboards and Panelboards**	**$893.28**
21	De-energize all buses at the source.	$446.64
22	Open all circuit breakers and disconnect switches.	$446.64
23	**Oil-Filled Power Transformers**	**$5,549.44**
24	De-energize all transformer primaries and verify that the secondary is de-energized.	$893.28
25	De-energize all low-voltage AC or DC power sources for space heaters, cooling equipment, controls, etc. at the source and open circuit breakers or remove fuses at transformer end.	$893.28
26	Drain and dispose of oil.	$2,642.88
27	Clean up and dispose of oil on surface areas around the transformers on in containment pits.	$1,120.00
28	**Dry-type Power Transformers**	**$1,786.56**
29	De-energize all transformer primaries and verify that the secondary is de-energized.	$893.28
30	De-energize all low-voltage AC or DC power sources for space heaters, cooling equipment, controls, etc. at the source and open circuit breakers or remove fuses at transformer end.	$893.28
31	**Motors**	**$6,216.00**
32	De-energize all primary power at the source.	$1,786.56

Sibley Unit 3 Retirement

ID	Task Name	Cost
33	De-energize all low-voltage power sources for space heaters or other auxiliary equipment at the source.	$1,786.56
34	Drain lube oil system (if applicable) and dispose of oil.	$2,642.88
35	**Coal Handling**	**$25,790.00**
36	Empty all silos in Area M.	$1,704.56
37	Confirm conveyors are run out of fuel.	$1,685.44
38	Perform cleaning of the coal handling equipment to assure that all coal and coal dust has been removed from area.	$22,400.00
39	**Propane Igniter System**	**$2,528.16**
40	Isolate lines from source, open and vent.	$2,528.16
41	**Boiler Chemical Feed**	**$1,685.44**
42	Drain all chemical feed tanks.	$1,685.44
43	**Condensate Polisher**	**$4,529.12**
44	Drain water from system.	$842.72
45	Drain acid and caustic tanks.	$1,685.44
46	Open tanks and vessels.	$880.96
47	Remove resin.	$1,120.00
48	**Boiler**	**$32,108.85**
49	Open boiler doors.	$880.96
50	Gas side - perform cleaning of the boiler and bottom ash system.	$22,400.00
51	Drain boiler, drum, downcomers and headers.	$842.72
52	Open drum doors.	$880.96
53	Drain, vent and clean the fly ash, slag and transport water system	$2,480.13
54	Drain and vent the steam coil air heaters and piping	$1,541.36
55	Drain and vent the steam coil air heater drain tanks	$1,541.36
56	Drain and vent boiler sampling system panel and piping	$1,541.36
57	**Precipitator**	**$9,901.68**
58	Multiple cleaning cycles for collection plates.	$2,528.16
59	Clear hoppers of all ash	$2,104.08
60	Disconnect transformers.	$1,786.56
61	Mechanically secure all compartment dampers and hopper outlet valves in open position.	$720.48
62	Disconnect ash transport piping and washdown hoppers and interior of casing.	$1,000.48
63	Install bird screens across hopper ash outlet and ash line flanges.	$880.96
64	Padlock or tack weld all hopper doors shut. (note: if ash hopper doors are indoors, they could be removed and the opening covered with bird screens.)	$880.96
65	**Ductwork**	**$12,080.96**
66	Open ductwork doors.	$880.96
67	Perform extensive cleaning of the ductwork.	$11,200.00
68	Isolate ductwork at tie to common ductwork.	$0.00
69	**Condensate and Feedwater Piping**	**$1,685.44**
70	Drain water from the system.	$842.72

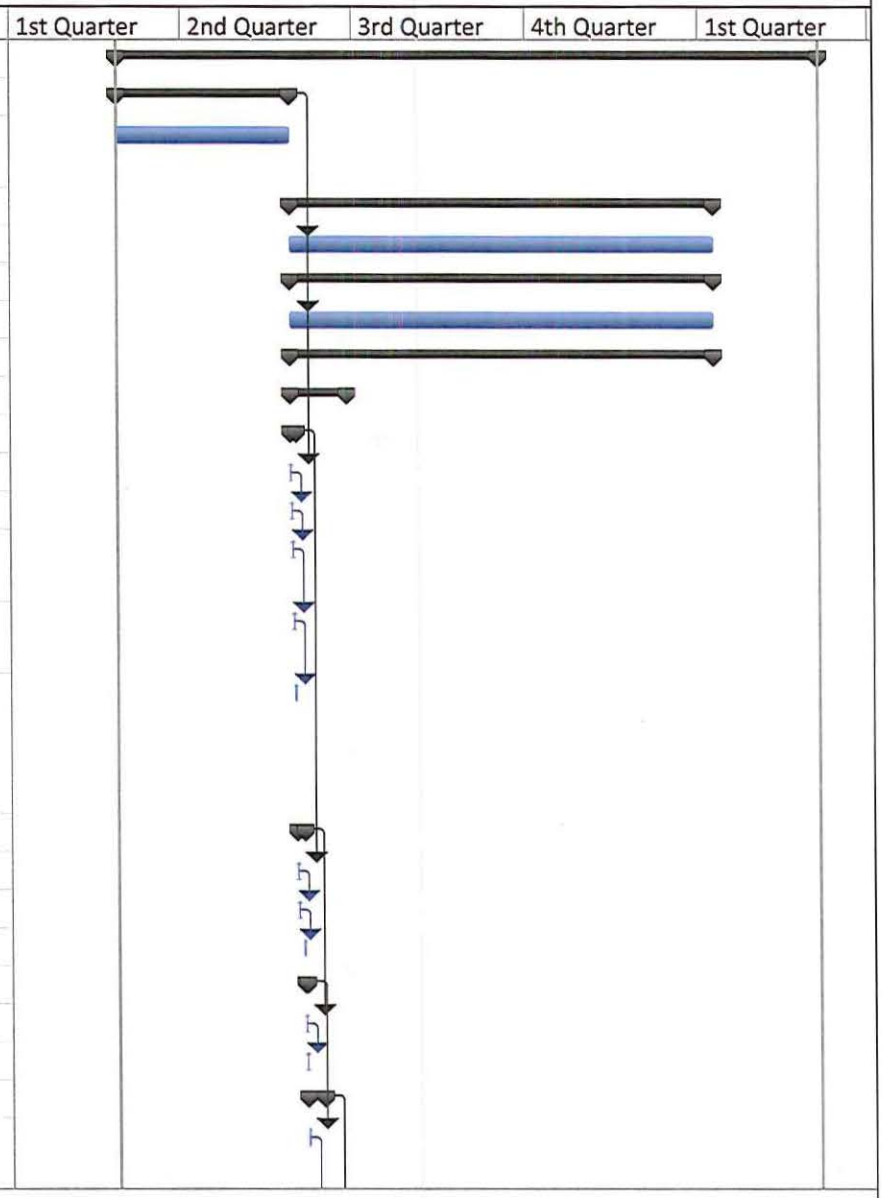
Sibley Unit 3 Retirement		
ID	Task Name	Cost
71	Leave open vents and drains.	$842.72
72	**Feedwater heaters**	**$3,370.88**
73	Drain feedwater heaters	$842.72
74	Leave open vents and drains.	$1,685.44
75	Drain and vent the heater drain piping.	$842.72
76	**Deaerator and Deaerator Storage Tank**	**$1,685.44**
77	Drain Deaerator and Storage	$842.72
78	Leave open vents and drains.	$842.72
79	**SCR**	**$9,053.52**
80	Vacuum fly ash from catalyst.	$1,680.00
81	Remove catalyst of salvage or disposal.	$2,441.44
82	Padlock or tack weld access doors shut.	$880.96
83	Remove ammonia from storage tank for resale.	$701.36
84	Wash out and drain storage tank and supply piping.	$701.36
85	Vent storage tank and all piping. Leave vent and drain valves open or remove. Install bird screens.	$861.84
86	Pull electrical supply breakers on all electrical equipment except lighting and HVAC components that are to remain in service.	$1,786.56
87	**Turbine(s) and Condenser**	**$5,266.64**
88	Drain hotwell and leave doors open.	$861.84
89	Open main turbine doors.	$880.96
90	Open bfp turbine doors.	$880.96
91	Remove lube oil.	$2,642.88
92	**Generator**	**$6,095.76**
93	Verify that generator circuit breaker is open and racked out or that high-voltage disconnect switch on substation side of GSU transformer is locked in the open position.	$446.64
94	Verify that generator field breaker or contactor (if applicable) is open.	$446.64
95	De-energize power supplies to generator excitation system at the source.	$446.64
96	De-energize AC and DC power supplies to generator and exciter space heaters, cooling equipment, controls, lighting, etc. at the source and open circuit breakers or remove fuses at the generator and exciter.	$446.64
97	Drain generator and exciter cooling water systems (if applicable).	$861.84
98	Disconnect and remove hydrogen gas tanks and purge generator hydrogen system.	$1,685.44
99	Disconnect and remove fire protection system gas/foam tanks and purge fire protection system.	$1,761.92
100	**Circulation Water and Turbine Cooling Water System**	**$3,409.12**
101	Drain.	$1,685.44
102	Open water box doors.	$880.96
103	Drain any circulating water chemical feed tanks.	$842.72

Sibley Unit 3 Retirement

ID	Task Name	Cost
104	**Compressed Air System**	**$842.72**
105	Open vents and drains.	$842.72
106	**Auxiliary Steam System**	**$842.72**
107	Drain water from system.	$842.72
108	**Station Cooling Water System**	**$1,685.44**
109	Drain water from system.	$842.72
110	Vent piping.	$842.72
111	**Condenser Air Extraction**	**$842.72**
112	Drain water from system.	$842.72
113	**Building Heating System**	**$842.72**
114	Drain water from system.	$842.72
115	**Battery System**	**$4,253.28**
116	De-energize all battery chargers from the source.	$446.64
117	Open all AC and DC circuit breakers and/or fused switches on battery chargers and disconnect cables from batteries.	$446.64
118	Remove and dispose of battery electrolyte.	$1,680.00
119	Remove and dispose of battery cells.	$1,120.00
120	Clean up and dispose of electrolyte on surface areas around batteries.	$560.00
121	**Post Retirement Activities**	**$26,564.00**
122	Post Retirement Activities	$26,564.00

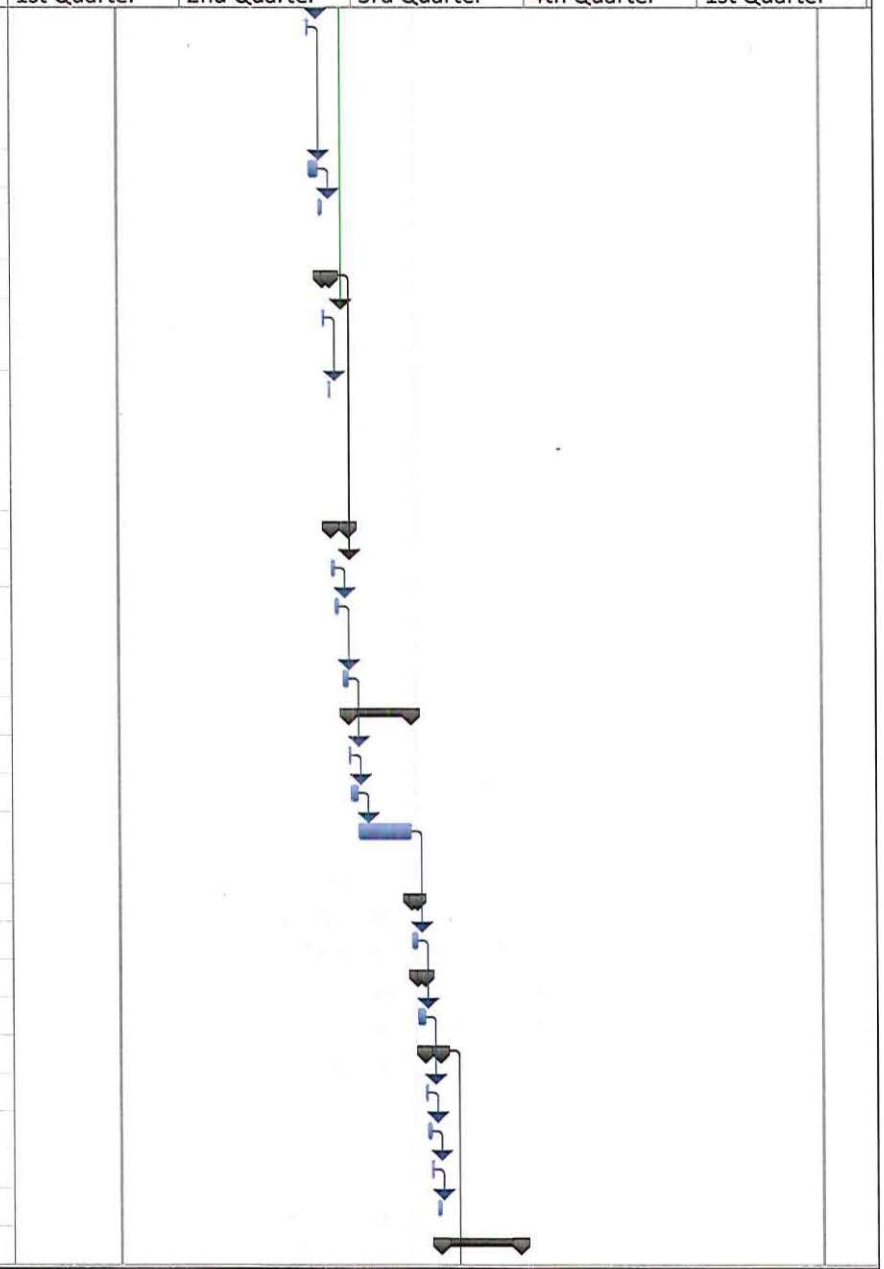
Sibley Unit 3 Retirement

ID	Task Name	Duration
1	**Sibley Unit 3 Retirement**	**267 days**
2	**Pre-Engineering**	**66 days**
3	Permit review and engineering analysis, establish isolation points, and confirm fuel yard inventory has been reduced to	66 days
4	**KCL&L Overhead Costs**	**161 days**
5	KCP&L Retirement Manager	161 days
6	**Equipment Rentals**	**161 days**
7	Vacuum truck	161 days
8	**Retirement**	**161 days**
9	**Electrical**	**22 days**
10	**Medium and Low Voltage Draw out Switchgear**	**3 days**
11	De-energize all buses at the source.	0.5 days
12	Open all circuit breakers.	0.5 days
13	Rack all circuit breakers into the fully withdrawn, disconnected position.	0.5 days
14	Verify that the closing/tripping springs are discharged.	0.5 days
15	De-energize control power and auxiliary power circuits of each circuit breaker at the source and by opening control power circuit breakers or removing fuses in each breaker cubicle.	1 day
16	**Motor Control Centers**	**2 days**
17	De-energize all buses at the source.	0.5 days
18	Open all circuit breakers and disconnect switches.	0.5 days
19	Remove all fuses in control circuits.	1 day
20	**Low-voltage Switchboards and Panelboards**	**1 day**
21	De-energize all buses at the source.	0.5 days
22	Open all circuit breakers and disconnect switches.	0.5 days
23	**Oil-Filled Power Transformers**	**7 days**
24	De-energize all transformer primaries and verify that the secondary is de-energized.	1 day



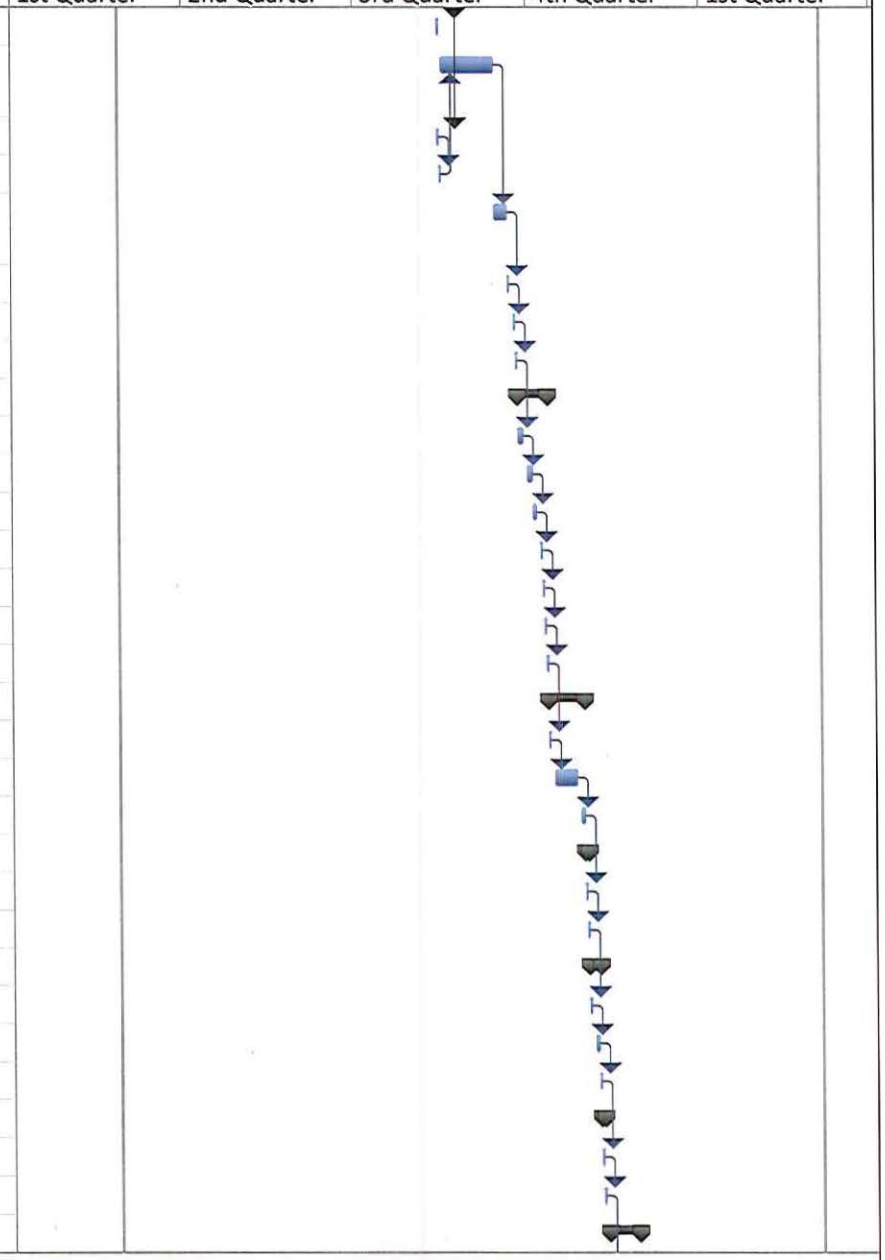
Sibley Unit 3 Retirement

ID	Task Name	Duration
25	De-energize all low-voltage AC or DC power sources for space heaters, cooling equipment, controls, etc. at the source and open circuit breakers or remove fuses at transformer end.	1 day
26	Drain and dispose of oil.	3 days
27	Clean up and dispose of oil on surface areas around the transformers on in containment pits.	2 days
28	**Dry-type Power Transformers**	**2 days**
29	De-energize all transformer primaries and verify that the secondary is de-energized.	1 day
30	De-energize all low-voltage AC or DC power sources for space heaters, cooling equipment, controls, etc. at the source and open circuit breakers or remove fuses at transformer end.	1 day
31	**Motors**	**7 days**
32	De-energize all primary power at the source.	2 days
33	De-energize all low-voltage power sources for space heaters or other auxiliary equipment at the source.	2 days
34	Drain lube oil system (if applicable) and dispose of oil.	3 days
35	**Coal Handling**	**23 days**
36	Empty all silos in Area M.	1 day
37	Confirm conveyors are run out of fuel.	2 days
38	Perform cleaning of the coal handling equipment to assure that all coal and coal dust has been removed from area.	20 days
39	**Propane Igniter System**	**3 days**
40	Isolate lines from source, open and vent.	3 days
41	**Boiler Chemical Feed**	**2 days**
42	Drain all chemical feed tanks.	2 days
43	**Condensate Polisher**	**6 days**
44	Drain water from system.	1 day
45	Drain acid and caustic tanks.	2 days
46	Open tanks and vessels.	1 day
47	Remove resin.	2 days
48	**Boiler**	**30 days**



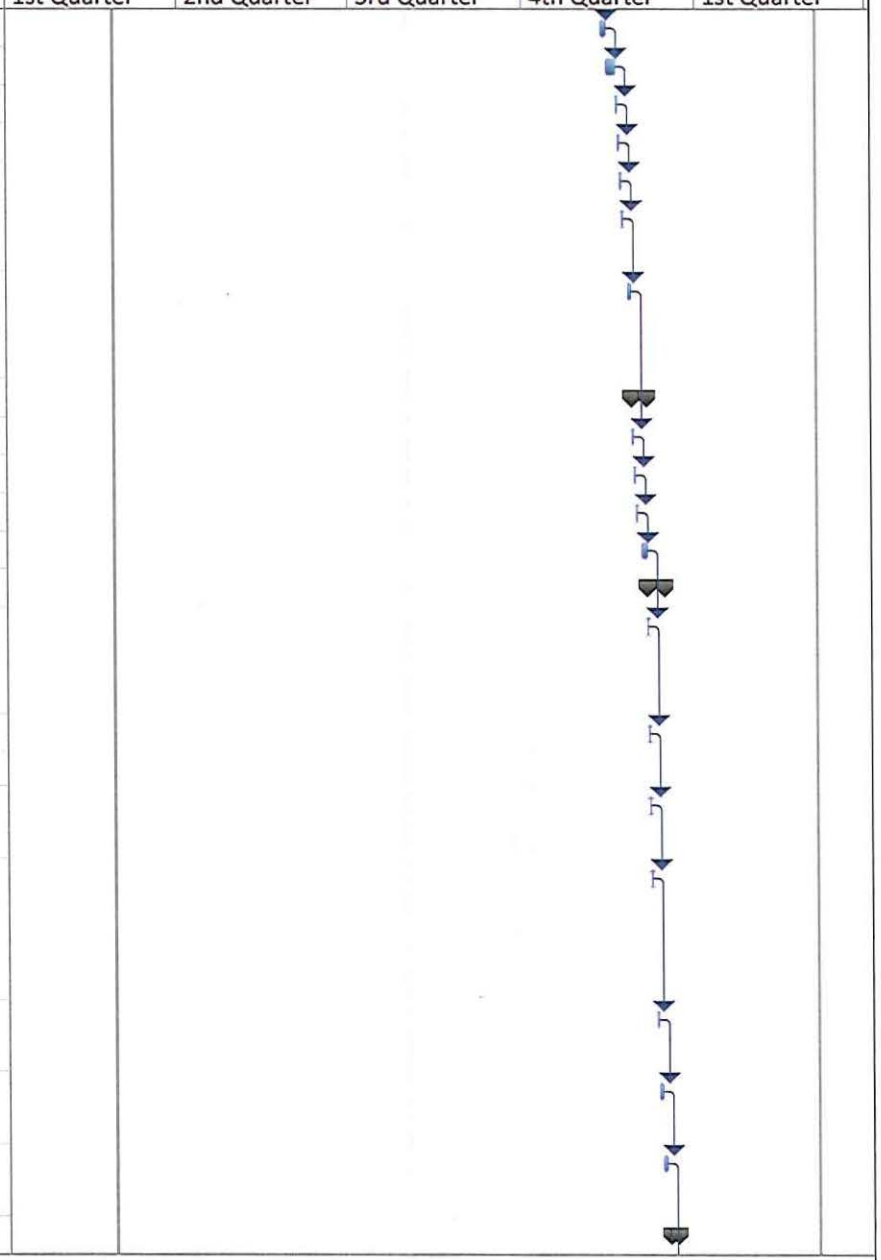
Sibley Unit 3 Retirement

ID	Task Name	Duration
49	Open boiler doors.	1 day
50	Gas side - perform cleaning of the boiler and bottom ash system.	20 days
51	Drain boiler, drum, downcomers and headers.	1 day
52	Open drum doors.	1 day
53	Drain, vent and clean the fly ash, slag and transport water system	5 days
54	Drain and vent the steam coil air heaters and piping	1 day
55	Drain and vent the steam coil air heater drain tanks	1 day
56	Drain and vent boiler sampling system panel and piping	1 day
57	**Precipitator**	**12 days**
58	Multiple cleaning cycles for collection plates.	3 days
59	Clear hoppers of all ash	3 days
60	Disconnect transformers.	2 days
61	Mechanically secure all compartment dampers and hoppe	1 day
62	Disconnect ash transport piping and washdown hoppers ar	1 day
63	Install bird screens across hopper ash outlet and ash line fl	1 day
64	Padlock or tack weld all hopper doors shut. (note: if ash ho	1 day
65	**Ductwork**	**13 days**
66	Open ductwork doors.	1 day
67	Perform extensive cleaning of the ductwork.	10 days
68	Isolate ductwork at tie to common ductwork.	2 days
69	**Condensate and Feedwater Piping**	**2 days**
70	Drain water from the system.	1 day
71	Leave open vents and drains.	1 day
72	**Feedwater heaters**	**4 days**
73	Drain feedwater heaters	1 day
74	Leave open vents and drains.	2 days
75	Drain and vent the heater drain piping.	1 day
76	**Deaerator and Deaerator Storage Tank**	**2 days**
77	Drain Deaerator and Storage	1 day
78	Leave open vents and drains.	1 day
79	**SCR**	**12 days**



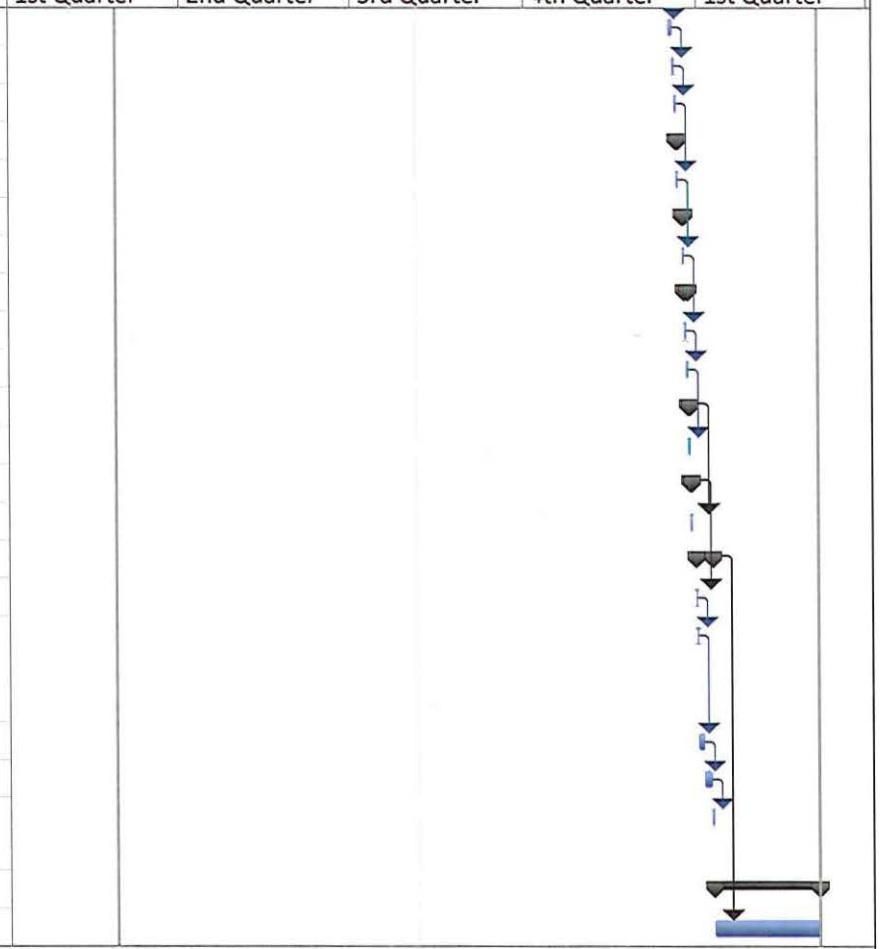
Sibley Unit 3 Retirement

ID	Task Name	Duration
80	Vacuum fly ash from catalyst.	3 days
81	Remove catalyst of salvage or disposal.	3 days
82	Padlock or tack weld access doors shut.	1 day
83	Remove ammonia from storage tank for resale.	1 day
84	Wash out and drain storage tank and supply piping.	1 day
85	Vent storage tank and all piping. Leave vent and drain valves open or remove. Install bird screens.	1 day
86	Pull electrical supply breakers on all electrical equipment except lighting and HVAC components that are to remain in service.	2 days
87	**Turbine(s) and Condenser**	**6 days**
88	Drain hotwell and leave doors open.	1 day
89	Open main turbine doors.	1 day
90	Open bfp turbine doors.	1 day
91	Remove lube oil.	3 days
92	**Generator**	**7 days**
93	Verify that generator circuit breaker is open and racked out or that high-voltage disconnect switch on substation side of GSU transformer is locked in the open position.	0.5 days
94	Verify that generator field breaker or contactor (if applicable) is open.	0.5 days
95	De-energize power supplies to generator excitation system at the source.	0.5 days
96	De-energize AC and DC power supplies to generator and exciter space heaters, cooling equipment, controls, lighting, etc. at the source and open circuit breakers or remove fuses at the generator and exciter.	0.5 days
97	Drain generator and exciter cooling water systems (if applicable).	1 day
98	Disconnect and remove hydrogen gas tanks and purge generator hydrogen system.	2 days
99	Disconnect and remove fire protection system gas/foam tanks and purge fire protection system.	2 days
100	**Circulation Water and Turbine Cooling Water System**	**4 days**



Sibley Unit 3 Retirement

ID	Task Name	Duration
101	Drain.	2 days
102	Open water box doors.	1 day
103	Drain any circulating water chemical feed tanks.	1 day
104	**Compressed Air System**	**1 day**
105	Open vents and drains.	1 day
106	**Auxiliary Steam System**	**1 day**
107	Drain water from system.	1 day
108	**Station Cooling Water System**	**2 days**
109	Drain water from system.	1 day
110	Vent piping.	1 day
111	**Condenser Air Extraction**	**1 day**
112	Drain water from system.	1 day
113	**Building Heating System**	**1 day**
114	Drain water from system.	1 day
115	**Battery System**	**7 days**
116	De-energize all battery chargers from the source.	0.5 days
117	Open all AC and DC circuit breakers and/or fused switches on battery chargers and disconnect cables from batteries.	0.5 days
118	Remove and dispose of battery electrolyte.	3 days
119	Remove and dispose of battery cells.	2 days
120	Clean up and dispose of electrolyte on surface areas around batteries.	1 day
121	**Post Retirement Activities**	**40 days**
122	Post Retirement Activities	40 days



Sibley Unit 3 Dismantlement

Owner Costs				
Pre-Dismantlement Activities			$892,760	
Overhead During Dismantlement			$1,602,538	
Post-Dismantlement Activities			$49,140	
Owner Costs Total*				$2,544,438
Demolition General Contractor (DGC) Costs				
Site Management			$873,555	
Equipment Rental			$1,487,425	
Consummables			$1,483,973	
Scrap Crew(s)			$1,472,497	
Dismantlement			$3,276,697	
Contractor Direct Cost*		$8,594,147		
Contractor Allowances				
DGC Insurance	2.00%		$171,883	
Contingency/Profit	15.00%		$1,314,904	
Performance Bond	2.00%		$201,618.69	
Contractor Costs Total:				$10,282,553

Total:		$12,826,991
Owner Internal Costs:	5.00%	$641,350
Owner Contingency:	25.00%	$3,367,085
Sibley Unit 3 Dismantlement Opinion of Probable Cost:		$16,835,426

*Owner Costs Total + Contractor Direct Costs = Manpower Loaded Schedule Total w/o Contractor Allowances
= $11,138,585

Sibley Unit 3 Dismantlement

ID	Task Name	Cost
1	**Sibley Unit 3 Dismantlement**	**$11,138,588.64**
2	**Pre-Dismantlement Activities**	**$892,760.32**
3	Detailed Planning & Hire Owner's Engineer	$104,441.28
4	Detailed Site Characterization Study	$610,335.44
5	Hire Demolition General Contractor	$167,184.00
6	KCP&L Prepares Unit for Dismantlement	$10,799.60
7	Demolition Contractor Mobilizes on Site	$0.00
8	**KCP&L Overhead during Dismantlement**	**$1,602,538.32**
9	KCP&L Project Manager	$254,655.60
10	KCP&L Administrative Support	$94,168.32
11	KCP&L Engineer	$418,562.40
12	Owners Engineer Project Manager	$124,944.00
13	Owners Engineer - Engineer	$710,208.00
14	**Demoliton Contractor Overhead during Dismantlement**	**$873,555.84**
15	Demolition Contractor Project Manager	$247,158.96
16	Demolition Contractor Safety Manager	$220,065.84
17	Demolition Contractor Superintendent	$406,331.04
18	**Demolition Contractor Equipment Rental Costs**	**$1,487,425.44**
19	Equipment Rental	$1,487,425.44
20	**Demolition Contractor Consummables**	**$1,483,973.04**
21	Consummables	$1,483,973.04
22	**Scrap Crew(s)**	**$1,472,497.92**
23	Crew to Handle Scrap Material(s)	$1,472,497.92
24	**Dismantlement Directs**	**$3,276,697.76**
25	**Phase 1 Demolition**	**$775,861.84**
26	**Electrical Demolition**	**$342,149.76**
27	Electrical Demolition Equipment	$342,149.76
28	**Condensate System**	**$73,445.76**
29	Condensate Pumps	$3,582.72
30	Condensate Booster Pumps	$1,791.36
31	Gland Steam Condenser	$3,582.72
32	Low Pressure Heaters (except the condenser neck heat exchangers)	$26,870.40
33	Deaerator	$7,165.44
34	Deaerator Storage Tank	$7,165.44
35	Condensate Piping	$17,913.60
36	Polisher Vessels, Regen Vessels and Support Skids	$5,374.08
37	**Boiler Feed System**	**$42,298.88**
38	Boiler Feed Pump Turbines (2) and Exhaust	$10,054.40
39	Boiler Feed Pumps - Turbine Driven	$14,330.88
40	Start-up Boiler Feed Pump	$0.00
41	High Pressure Heaters	$17,913.60
42	Feedwater piping	$0.00
43	**Critical Piping**	**$69,863.04**

Sibley Unit 3 Dismantlement

ID	Task Name	Cost
44	Main Steam Piping	$23,287.68
45	Cold Reheat Piping	$23,287.68
46	Hot Reheat Piping	$23,287.68
47	**Extraction Steam System**	**$17,913.60**
48	Piping and Valves	$17,913.60
49	**Heater Drips**	**$8,956.80**
50	Heater Drip Pump	$1,791.36
51	Piping	$7,165.44
52	**Auxiliary Steam**	**$12,539.52**
53	Auxiliary Steam Piping, Tanks and Misc. Equipment	$12,539.52
54	**Circulating Water (plant side)**	**$5,374.08**
55	Waterboxes	$5,374.08
56	**Station Cooling Water**	**$16,122.24**
57	Station Cooling Water Pumps	$1,791.36
58	Station Cooling Water Heat Exchanger	$3,582.72
59	Station Cooling Water Piping	$10,748.16
60	Chemical Mixing Tank	$0.00
61	Station Cooling Water Head Tank	$0.00
62	**Service Water**	**$12,539.52**
63	Service Water Piping	$12,539.52
64	**Propane System (plant side)**	**$16,122.24**
65	Propane Piping and Valves	$7,165.44
66	Igniters	$8,956.80
67	**Air Preheat System**	**$7,165.44**
68	Steam Coil Air Heater Piping	$3,582.72
69	Steam Coil Drain Pumps	$1,791.36
70	Steam Coil Drain Tanks	$1,791.36
71	**Condenser Air Extraction System**	**$12,539.52**
72	Vacuum Pumps	$7,165.44
73	Vacuum Priming Pump	$1,791.36
74	Vacuum Pump Piping	$3,582.72
75	**Turbine Seals and Drains**	**$7,165.44**
76	Piping	$7,165.44
77	**Turbine Lube Oil System**	**$20,564.40**
78	Turbine Lube Oil Tank	$9,816.24
79	Turbine Lube Oil Pumps	$7,165.44
80	Turbine Oil Mist Eliminator	$3,582.72
81	**Generator Auxiliary Systems**	**$25,079.04**
82	Hydrogen Cooler Skid and Piping	$5,374.08
83	Stator Cooling Water Skid and Piping	$5,374.08
84	Isophase Bus Duct	$7,165.44
85	Exciter Heat Exchanger	$3,582.72
86	EHC Coolers	$3,582.72
87	**Chemical Feed Systems**	**$14,330.88**

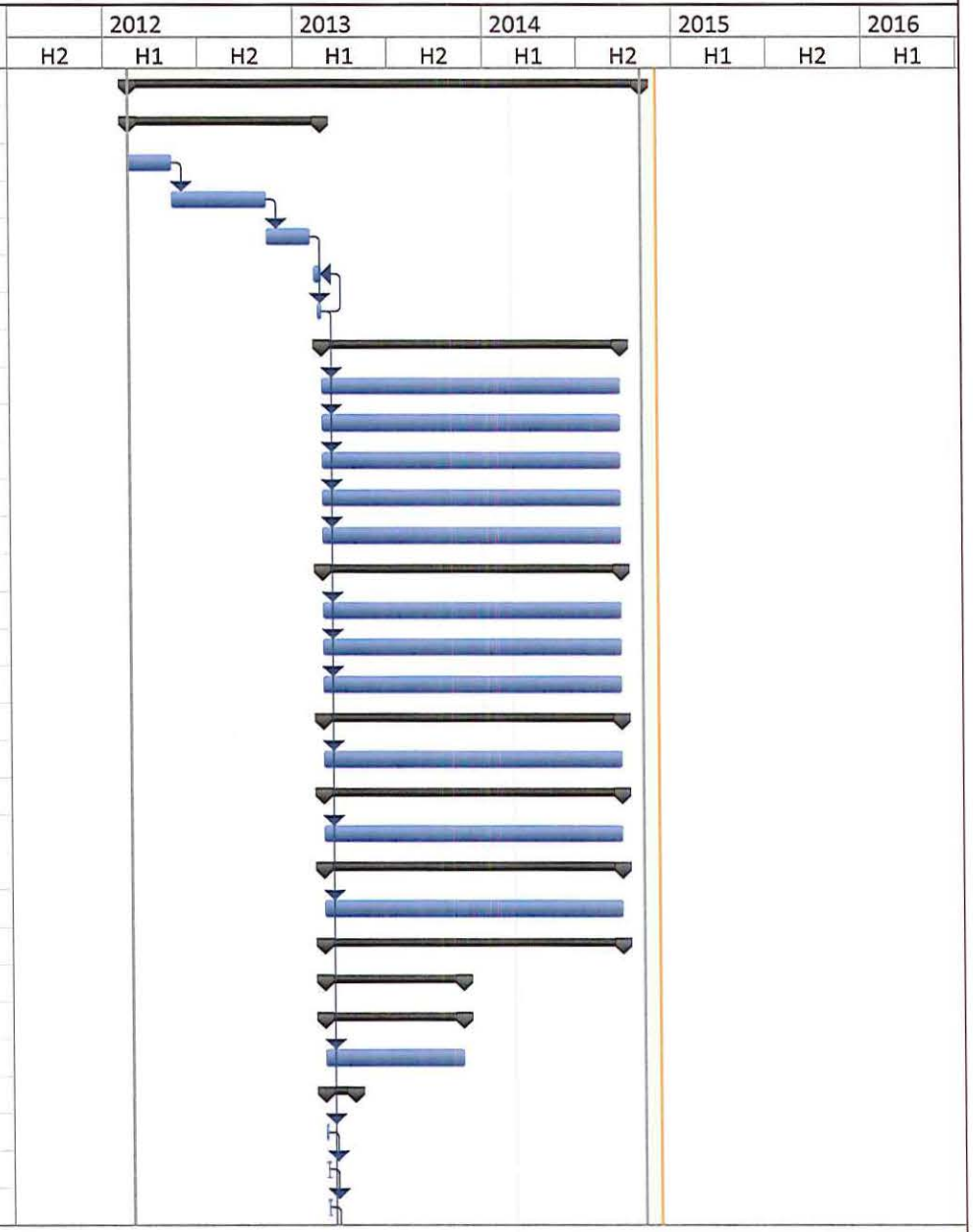
Sibley Unit 3 Dismantlement

ID	Task Name	Cost
88	Tanks	$3,582.72
89	Pumps	$5,374.08
90	Piping	$5,374.08
91	**Sampling Systems**	**$10,017.12**
92	Field Mounted Heat Exchangers	$3,582.72
93	Piping	$2,851.68
94	Sample Panel	$3,582.72
95	**Building Heating Systems**	**$13,307.84**
96	Steam Unit Heaters	$9,505.60
97	Steam Piping	$3,802.24
98	**Compressed Air System**	**$26,870.40**
99	Air Compressors	$7,165.44
100	Air Drying Equipment	$5,374.08
101	Air Reciever Tanks	$5,374.08
102	Compressed Air Piping	$8,956.80
103	**Miscellaneous Equipment**	**$21,496.32**
104	Miscellaneous Equipment (including Fire Protection)	$21,496.32
105	**Phase 2 Demolition**	**$2,409,476.56**
106	**Precipitator**	**$107,481.60**
107	Remove Precipitator	$107,481.60
108	**Boiler Equipment**	**$536,314.56**
109	Fans	$53,740.80
110	Bottom Ash	$16,451.52
111	Air Heater	$143,308.80
112	Steam Drum	$71,654.40
113	Coal Bunkers	$71,654.40
114	Soot Blowers	$25,447.68
115	Ductwork	$100,316.16
116	SCR	$53,740.80
117	**Boiler Removal**	**$329,610.24**
118	Furnace	$179,136.00
119	Back Pass	$150,474.24
120	**Boiler Steel Framing**	**$616,227.84**
121	Hanger Girders at Top	$107,481.60
122	All Other Framing	$286,617.60
123	Bracing and Girts	$143,308.80
124	Columns	$78,819.84
125	**Boiler Foundations**	**$128,977.92**
126	Equipment Foundation Demolition to Grade	$128,977.92
127	**Remove Turbine**	**$690,864.40**
128	Remove HP Turbine	$26,321.60
129	Remove IP Turbine	$26,321.60
130	Remove LP Turbine	$26,321.60
131	Remove Generator	$39,482.40

Sibley Unit 3 Dismantlement		
ID	Task Name	Cost
132	Remove Condenser Neck Heat Exchanger	$13,160.80
133	Remove Condenser	$26,321.60
134	Remove Misc. Auxiliary Turbine Equipment	$39,482.40
135	**Turbine Pedestal Demolition to Grade**	**$197,412.00**
136	Top Slab and Beams	$78,964.80
137	Columns	$118,447.20
138	**Remove Turbine Building**	**$296,040.40**
139	Siding and Roofing	$92,778.00
140	All Framing Elevations	$131,608.00
141	Bracing and Girts	$52,643.20
142	Columns	$19,011.20
143	**Phase 3 Demolition**	**$91,359.36**
144	**Yard Demolition**	**$91,359.36**
145	**Remove Ash Handling Equipment and Piping**	**$62,697.60**
146	Slag Tank	$17,913.60
147	Hydrovayer Pumps	$8,956.80
148	Slag Tank Pumps	$3,582.72
149	Hydrovayer Fly Ash System	$8,956.80
150	Vacuum Filter System	$5,374.08
151	Remove Slag Transport System Piping and Misc. Equipment	$17,913.60
152	**Remove Fuel Yard Equipment**	**$19,704.96**
153	Remove Conveyor 10	$8,956.80
154	Remove Conveyor 10A	$3,582.72
155	Remove Conveyor 10AA	$3,582.72
156	Remove Conveyor 10AB	$3,582.72
157	Remove Condensate Storage Tanks (2)	$8,956.80
158	**Project Close-Out**	**$49,140.00**
159	Project Close-Out Activities	$49,140.00

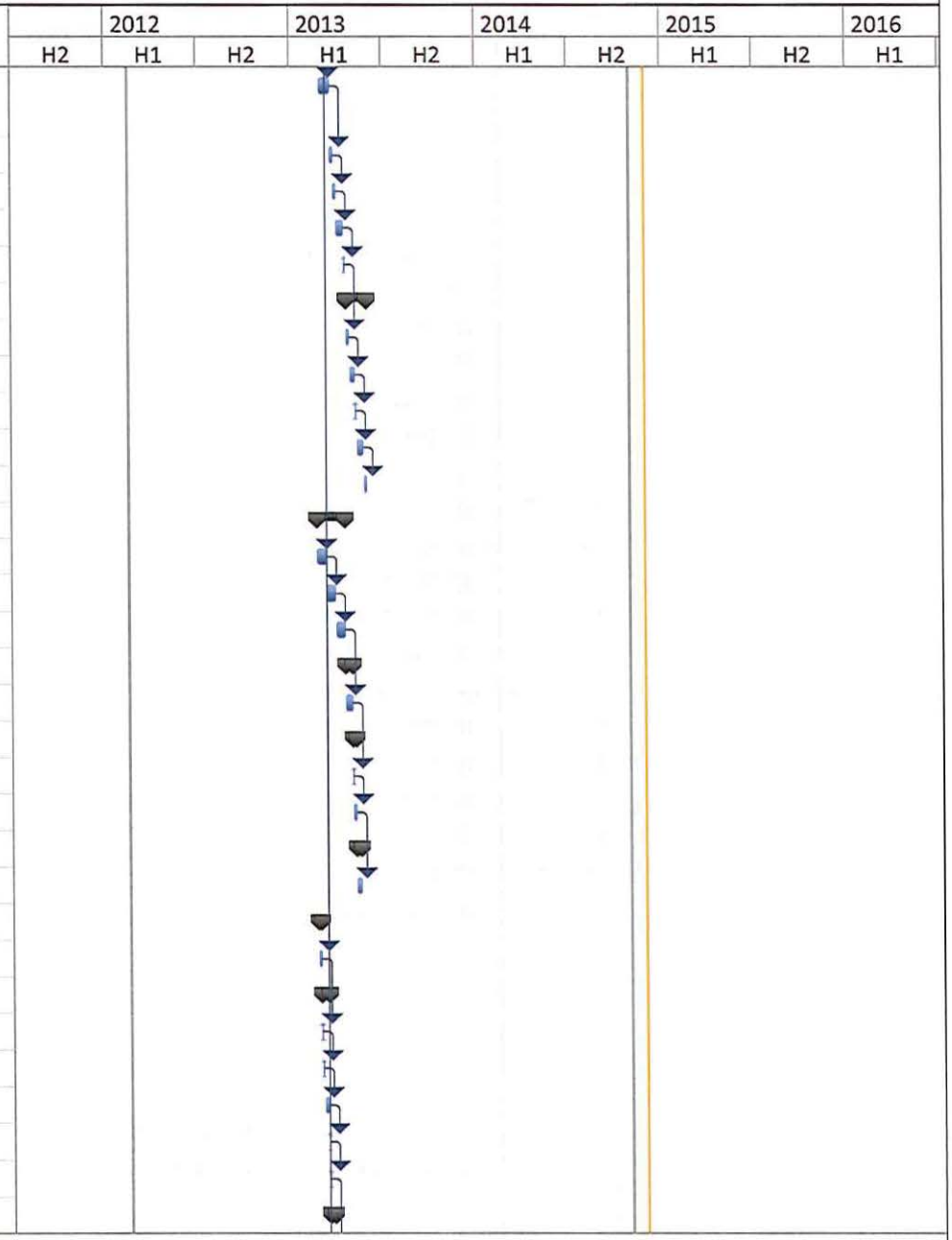
Sibley Unit 3 Dismantlement

ID	Task Name	Duration
1	**Sibley Unit 3 Dismantlement**	**706 days**
2	**Pre-Dismantlement Activities**	**265 days**
3	Detailed Planning & Hire Owner's Engineer	3 mons
4	Detailed Site Characterization Study	130 days
5	Hire Demolition General Contractor	3 mons
6	KCP&L Prepares Unit for Dismantlement	2 wks
7	Demolition Contractor Mobilizes on Site	5 days
8	**KCP&L Overhead during Dismantlement**	**411 days**
9	KCP&L Project Manager	411 days
10	KCP&L Administrative Support	411 days
11	KCP&L Engineer	411 days
12	Owners Engineer Project Manager	411 days
13	Owners Engineer - Engineer	411 days
14	**Demoliton Contractor Overhead during Dismantlemer**	**411 days**
15	Demolition Contractor Project Manager	411 days
16	Demolition Contractor Safety Manager	411 days
17	Demolition Contractor Superintendent	411 days
18	**Demolition Contractor Equipment Rental Costs**	**411 days**
19	Equipment Rental	411 days
20	**Demolition Contractor Consummables**	**411 days**
21	Consummables	411 days
22	**Scrap Crew(s)**	**411 days**
23	Crew to Handle Scrap Material(s)	411 days
24	**Dismantlement Directs**	**411 days**
25	**Phase 1 Demolition**	**191 days**
26	**Electrical Demolition**	**191 days**
27	Electrical Demolition Equipment	191 days
28	**Condensate System**	**41 days**
29	Condensate Pumps	2 days
30	Condensate Booster Pumps	1 day
31	Gland Steam Condenser	2 days



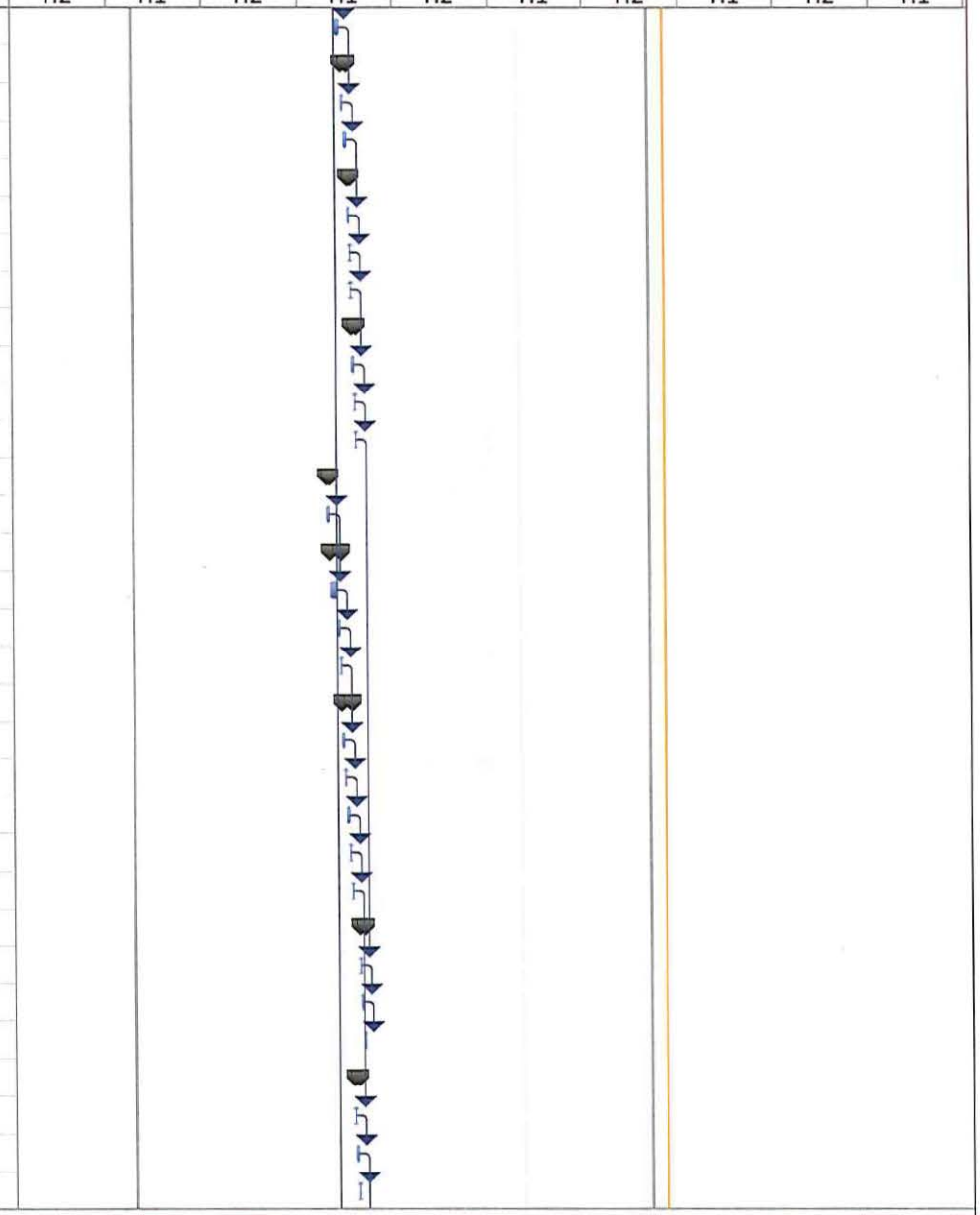
Sibley Unit 3 Dismantlement

ID	Task Name	Duration
32	Low Pressure Heaters (except the condenser neck heat exchangers)	15 days
33	Deaerator	4 days
34	Deaerator Storage Tank	4 days
35	Condensate Piping	10 days
36	Polisher Vessels, Regen Vessels and Support Ski	3 days
37	**Boiler Feed System**	**30 days**
38	Boiler Feed Pump Turbines (2) and Exhaust	5 days
39	Boiler Feed Pumps - Turbine Driven	8 days
40	Start-up Boiler Feed Pump	2 days
41	High Pressure Heaters	10 days
42	Feedwater piping	5 days
43	**Critical Piping**	**39 days**
44	Main Steam Piping	13 days
45	Cold Reheat Piping	13 days
46	Hot Reheat Piping	13 days
47	**Extraction Steam System**	**10 days**
48	Piping and Valves	10 days
49	**Heater Drips**	**5 days**
50	Heater Drip Pump	1 day
51	Piping	4 days
52	**Auxiliary Steam**	**7 days**
53	Auxiliary Steam Piping, Tanks and Misc. Equipm	7 days
54	**Circulating Water (plant side)**	**3 days**
55	Waterboxes	3 days
56	**Station Cooling Water**	**11 days**
57	Station Cooling Water Pumps	1 day
58	Station Cooling Water Heat Exchanger	2 days
59	Station Cooling Water Piping	6 days
60	Chemical Mixing Tank	1 day
61	Station Cooling Water Head Tank	1 day
62	**Service Water**	**7 days**



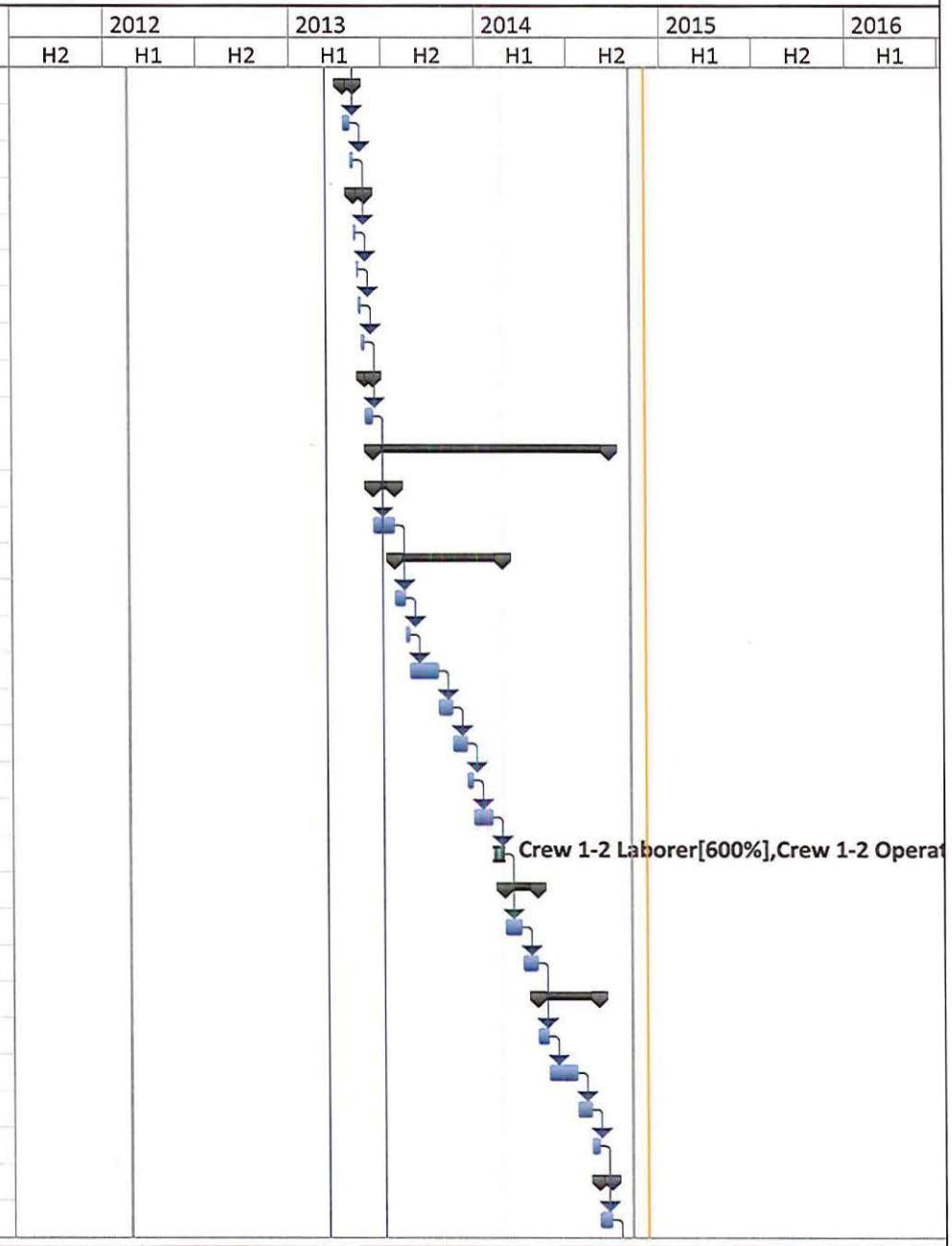
Sibley Unit 3 Dismantlement

ID	Task Name	Duration
63	Service Water Piping	7 days
64	**Propane System (plant side)**	**9 days**
65	Propane Piping and Valves	4 days
66	Igniters	5 days
67	**Air Preheat System**	**4 days**
68	Steam Coil Air Heater Piping	2 days
69	Steam Coil Drain Pumps	1 day
70	Steam Coil Drain Tanks	1 day
71	**Condenser Air Extraction System**	**7 days**
72	Vacuum Pumps	4 days
73	Vacuum Priming Pump	1 day
74	Vacuum Pump Piping	2 days
75	**Turbine Seals and Drains**	**4 days**
76	Piping	4 days
77	**Turbine Lube Oil System**	**15 days**
78	Turbine Lube Oil Tank	9 days
79	Turbine Lube Oil Pumps	4 days
80	Turbine Oil Mist Eliminator	2 days
81	**Generator Auxiliary Systems**	**14 days**
82	Hydrogen Cooler Skid and Piping	3 days
83	Stator Cooling Water Skid and Piping	3 days
84	Isophase Bus Duct	4 days
85	Exciter Heat Exchanger	2 days
86	EHC Coolers	2 days
87	**Chemical Feed Systems**	**8 days**
88	Tanks	2 days
89	Pumps	3 days
90	Piping	3 days
91	**Sampling Systems**	**7 days**
92	Field Mounted Heat Exchangers	2 days
93	Piping	3 days
94	Sample Panel	2 days



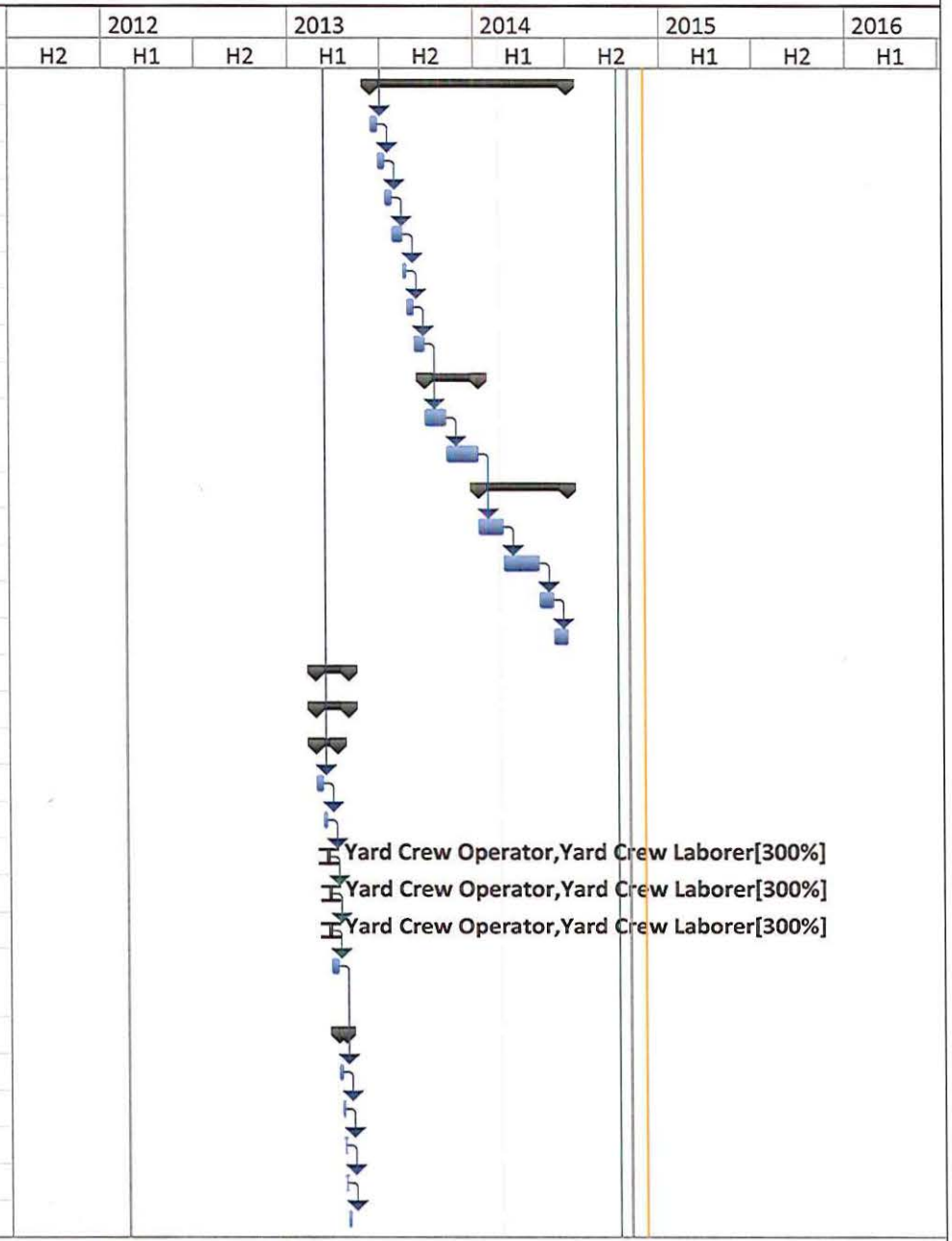
Sibley Unit 3 Dismantlement

ID	Task Name	Duration
95	**Building Heating Systems**	**14 days**
96	Steam Unit Heaters	10 days
97	Steam Piping	4 days
98	**Compressed Air System**	**15 days**
99	Air Compressors	4 days
100	Air Drying Equipment	3 days
101	Air Reciever Tanks	3 days
102	Compressed Air Piping	5 days
103	**Miscellaneous Equipment**	**12 days**
104	Miscellaneous Equipment (including Fire Protec	12 days
105	**Phase 2 Demolition**	**332 days**
106	**Precipitator**	**30 days**
107	Remove Precipitator	30 days
108	**Boiler Equipment**	**152 days**
109	Fans	15 days
110	Bottom Ash	6 days
111	Air Heater	40 days
112	Steam Drum	20 days
113	Coal Bunkers	20 days
114	Soot Blowers	8 days
115	Ductwork	28 days
116	SCR	15 days
117	**Boiler Removal**	**46 days**
118	Furnace	25 days
119	Back Pass	21 days
120	**Boiler Steel Framing**	**86 days**
121	Hanger Girders at Top	15 days
122	All Other Framing	40 days
123	Bracing and Girts	20 days
124	Columns	11 days
125	**Boiler Foundations**	**18 days**
126	Equipment Foundation Demolition to Grade	18 days



Sibley Unit 3 Dismantlement

ID	Task Name	Duration
127	**Remove Turbine**	**275 days**
128	Remove HP Turbine	10 days
129	Remove IP Turbine	10 days
130	Remove LP Turbine	10 days
131	Remove Generator	15 days
132	Remove Condenser Neck Heat Exchanger	5 days
133	Remove Condenser	10 days
134	Remove Misc. Auxiliary Turbine Equipment	15 days
135	**Turbine Pedestal Demolition to Grade**	**75 days**
136	Top Slab and Beams	30 days
137	Columns	45 days
138	**Remove Turbine Building**	**125 days**
139	Siding and Roofing	35 days
140	All Framing Elevations	50 days
141	Bracing and Girts	20 days
142	Columns	20 days
143	**Phase 3 Demolition**	**46 days**
144	**Yard Demolition**	**46 days**
145	**Remove Ash Handling Equipment and Piping**	**30 days**
146	Slag Tank	10 days
147	Hydrovayer Pumps	5 days
148	Slag Tank Pumps	2 days
149	Hydrovayer Fly Ash System	5 days
150	Vacuum Filter System	3 days
151	Remove Slag Transport System Piping and Misc. Equipment	10 days
152	**Remove Fuel Yard Equipment**	**11 days**
153	Remove Conveyor 10	5 days
154	Remove Conveyor 10A	2 days
155	Remove Conveyor 10AA	2 days
156	Remove Conveyor 10AB	2 days
157	Remove Condensate Storage Tanks (2)	5 days



Sibley Unit 3 Dismantlement

ID	Task Name	Duration		2012		2013		2014		2015		2016
			H2	H1	H2	H1	H2	H1	H2	H1	H2	H1
158	**Project Close-Out**	**30 days**										
159	Project Close-Out Activities	30 days										

COMMON

Sibley Common Retirement

Owner Costs			
Pre-Retirement Activities		$52,488	
Retirement Activities		$326,401	
Post-Retirement Activities		$26,224	
Owner Direct Total			$405,113
Owner Internal Costs	5.00%		$20,256
Owner Contingency:	25.00%		$106,342
Sibley Common Retirement Opinion of Probable Cost:			$531,710.81

Activities Required by Permit or Regulation

Propane Storage Tanks	$32,531	
Units 1 & 2 River Intake	$592,147	
Unit 3 River Intake	$592,147	
Landfill Stage A	$1,150,440	
Sibley Landfill Post Closure	$2,082,900	
Sibley Ash Pond Closure	$9,500,800	
Activities Required by Permit or Regulation:		$13,950,965

Sibley Common Retirement

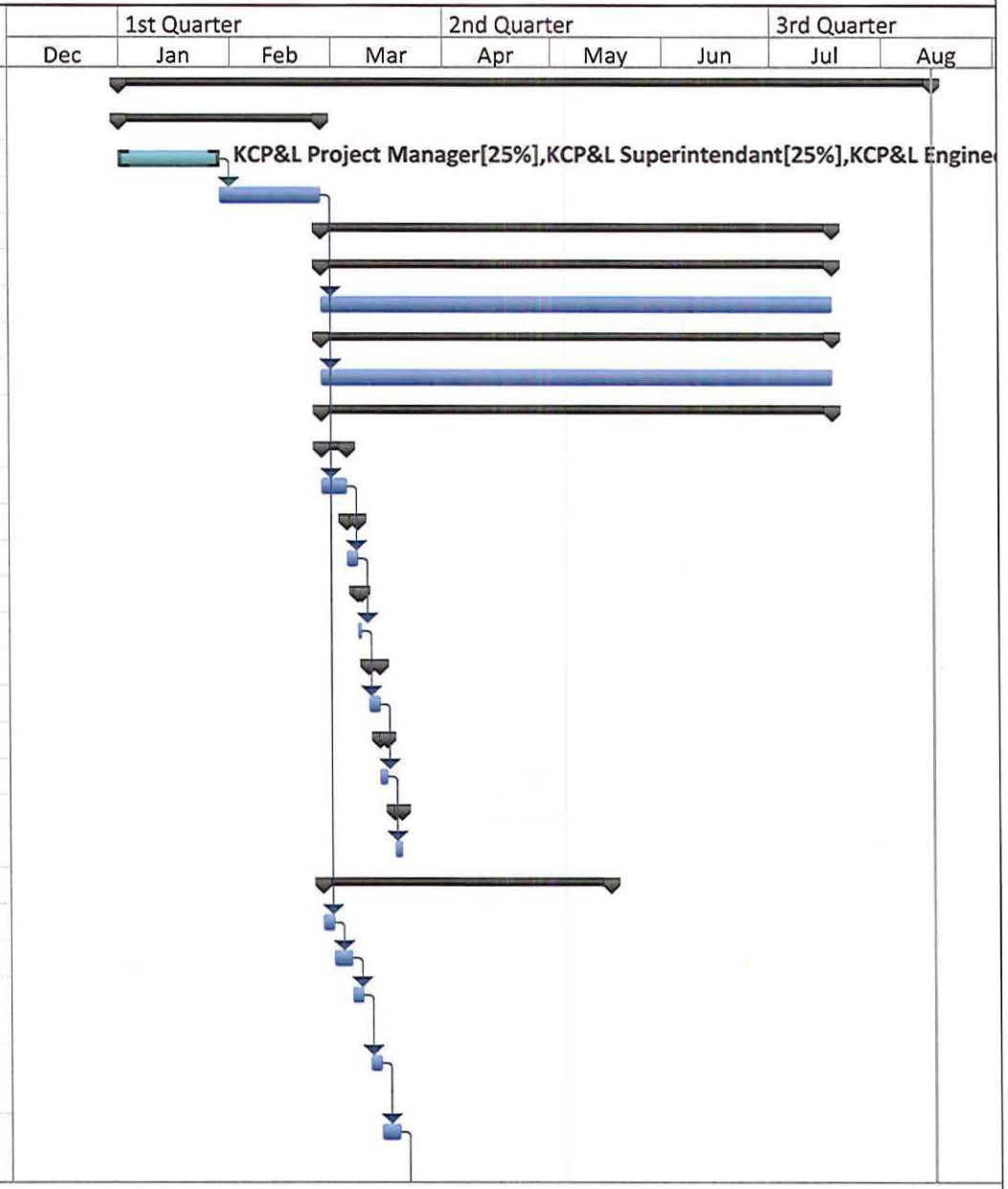
ID	Task Name	Cost
1	**Sibley Common Retirement**	**$405,075.52**
2	**Pre-Retirement Activities**	**$52,448.80**
3	Permitting Review	$26,224.40
4	Develop Detailed Retirement Plan	$26,224.40
5	**Overheads**	**$170,845.92**
6	**Retirement Overheads**	**$149,434.08**
7	Added Overhead Staff for Common Retirement	$149,434.08
8	**Common Removal Equipment Rental**	**$21,411.84**
9	Common Removal Equipment Rental	$21,411.84
10	**Retirement Activities**	**$155,556.40**
11	**Administration/Service Building**	**$9,342.40**
12	Secure Administration/Service Building	$9,342.40
13	**Fuel Yard Office Building**	**$5,605.44**
14	Secure Fuel Yard Office Building	$5,605.44
15	**Temporary Service Building**	**$1,868.48**
16	Secure Temporary Service Building	$1,868.48
17	**Warehouse**	**$5,605.44**
18	Secure Warehouse and Middle Warehouse	$5,605.44
19	**Tractor Shed**	**$4,630.24**
20	Secure Tractor Shed	$4,630.24
21	**Out Buildings**	**$3,736.96**
22	Secure the Insulators Shack and Hedrick Hall	$3,736.96
23	**Fuel Yard**	**$72,354.40**
24	Empty Rotary Car Dumper and Clean (Area A)	$2,941.36
25	Empty Sample House and Clean (Area B)	$3,784.08
26	Empty Transfer Hoppers and Clean Transfer House 1 (AreaD)	$3,784.08
27	Empty and Clean the Bituminous Stackout Reclaim (Area C)	$3,784.08
28	Empty and Clean the Sub-Bituminous Stackout/Reclaim (Area E)	$3,784.08
29	Empty Transfer Hoppers and Clean Transfer House 2 (Area F)	$3,784.08
30	Empty Transfer Hoppers and Clean the New Crusher House (Area G)	$3,784.08
31	Empty and Clean the Blended Stackout/Reclaim (Area H)	$3,784.08
32	Empty and Clean the Old Crusher House (Area I)	$3,784.08
33	Empty and Clean Silo E	$2,941.36
34	Empty Transfer Hoppers and Clean Transfer House (Area J)	$3,784.08
35	**Conveyors**	**$20,181.76**
36	Clean Conveyors - 5, 5A, 6, 6A, 16, 17, 7W, 7E, 7, 18, 18S, 18N ,11, 15, 8, 10C, 9A, 9, 12, 12A, 13, 14, 14A, 3 and 3A	$20,181.76
37	Remove Bags and Clean Dust Collectors	$5,926.40
38	Clean and Secure Miscellaneous Fuel Yard Equipment and clean laydown yards	$6,306.80
39	**Nox Out Ultra System**	**$17,861.28**
40	Drain and clean Tank 1100, 1200 and 1300	$3,784.08
41	Drain and clean the Solutionizing Tank	$3,784.08

Sibley Common Retirement

ID	Task Name	Cost
42	Drain and clean the equipment in the HFD Enclosure	$3,859.92
43	Open, clean and vent the equipment and piping by the MDM building	$6,433.20
44	**Intake Structures and Intake Chemical Feed System**	**$842.72**
45	Remove Chemicals	$842.72
46	**Underground Circulating Water Piping**	**$3,849.60**
47	Drain the Underground Circulating Water Piping	$3,849.60
48	**Sewage Treatment**	**$4,202.72**
49	Clean the Sewage Treatment Facility	$4,202.72
50	**Water Treatment**	**$21,443.12**
51	Drain and clean clarifier	$2,522.72
52	Empty, clean and vent gravity filters	$2,522.72
53	Open and vent storage tanks	$1,261.36
54	Empty, clean and vent carbon filters	$3,784.08
55	Remove RO membranes and open membrane housings	$1,261.36
56	Remove deminerilizer resins, clean and vent vessels	$5,045.44
57	Remove chemicals and flush storage tanks	$2,522.72
58	Flush and vent all water treatment piping.	$2,522.72
59	**Fuel Storage**	**$3,370.88**
60	Remove propane from propane storage tanks and vent.	$842.72
61	Vent propane piping and vaporizer.	$842.72
62	Drain and vent the Diesel Fuel Tank	$1,685.44
63	**Unit 3 Diesel Generator**	**$842.72**
64	Drain and vent diesel generator tank	$842.72
65	**Post Retirement Closure Activities**	**$26,224.40**
66	Post Retirement Closure Activities	$26,224.40

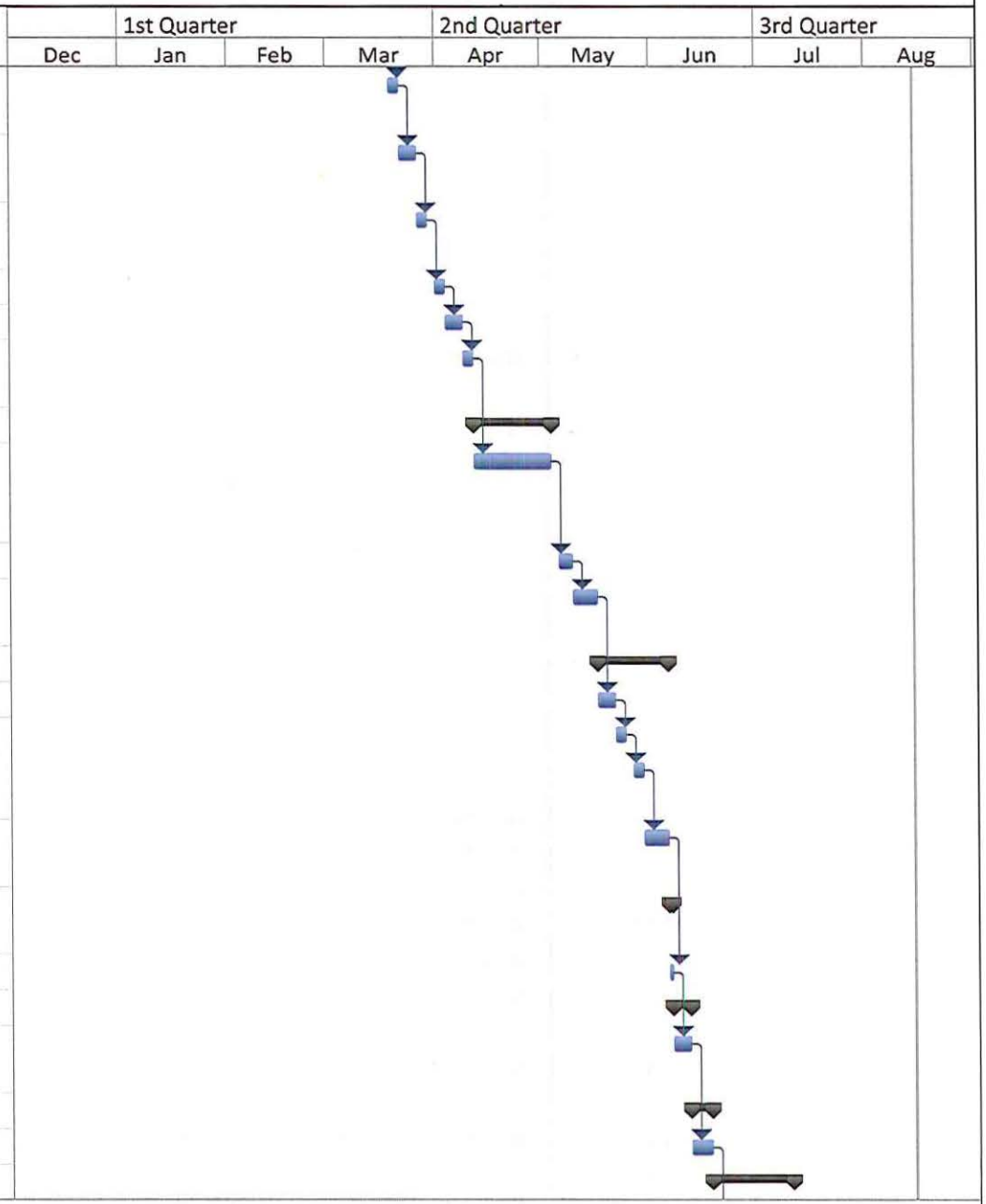
Sibley Common Retirement

ID	Task Name	Duration
1	**Sibley Common Retirement**	**162 days**
2	**Pre-Retirement Activities**	**40 days**
3	Permitting Review	20 days
4	Develop Detailed Retirement Plan	20 days
5	**Overheads**	**102 days**
6	**Retirement Overheads**	**102 days**
7	Added Overhead Staff for Common Retireme	102 days
8	**Common Removal Equipment Rental**	**102 days**
9	Common Removal Equipment Rental	102 days
10	**Retirement Activities**	**102 days**
11	**Administration/Service Building**	**5 days**
12	Secure Administration/Service Building	5 days
13	**Fuel Yard Office Building**	**3 days**
14	Secure Fuel Yard Office Building	3 days
15	**Temporary Service Building**	**1 day**
16	Secure Temporary Service Building	1 day
17	**Warehouse**	**3 days**
18	Secure Warehouse and Middle Warehouse	3 days
19	**Tractor Shed**	**2 days**
20	Secure Tractor Shed	2 days
21	**Out Buildings**	**2 days**
22	Secure the Insulators Shack and Hedrick Hall	2 days
23	**Fuel Yard**	**58 days**
24	Empty Rotary Car Dumper and Clean (Area A	3 days
25	Empty Sample House and Clean (Area B)	3 days
26	Empty Transfer Hoppers and Clean Transfer House 1 (AreaD)	3 days
27	Empty and Clean the Bituminous Stackout Reclaim (Area C)	3 days
28	Empty and Clean the Sub-Bituminous Stackout/Reclaim (Area E)	3 days



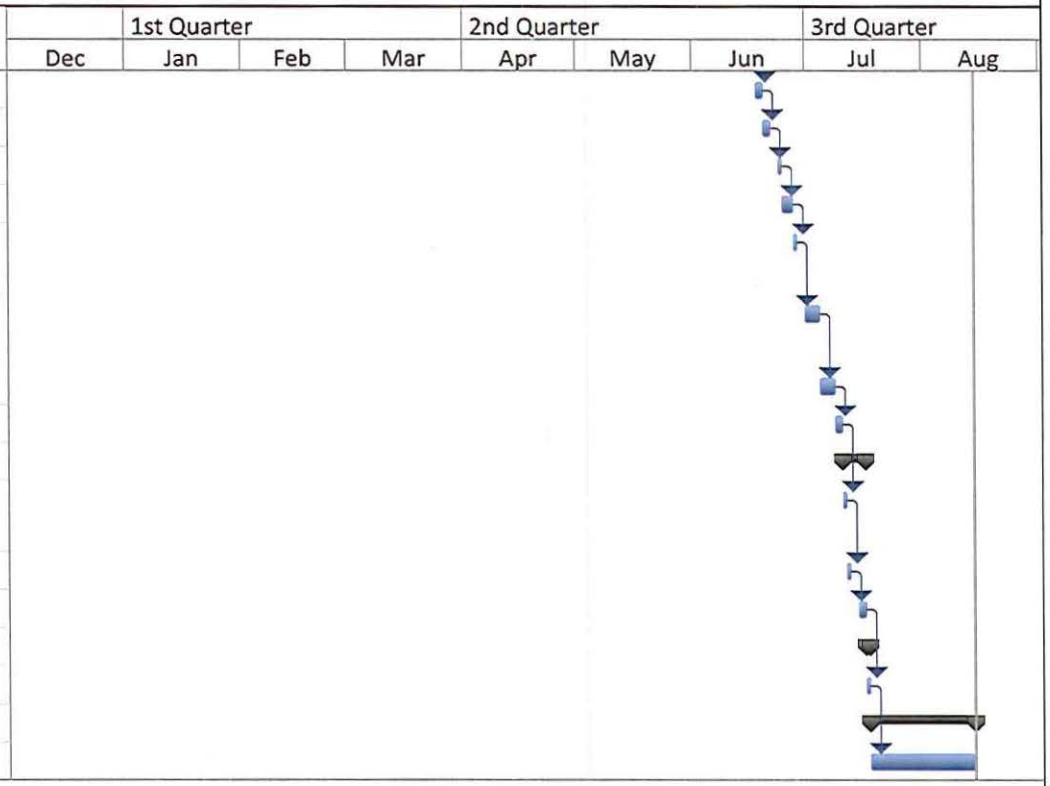
Sibley Common Retirement

ID	Task Name	Duration
29	Empty Transfer Hoppers and Clean Transfer House 2 (Area F)	3 days
30	Empty Transfer Hoppers and Clean the New Crusher House (Area G)	3 days
31	Empty and Clean the Blended Stackout/Reclaim (Area H)	3 days
32	Empty and Clean the Old Crusher House (Are	3 days
33	Empty and Clean Silo E	3 days
34	Empty Transfer Hoppers and Clean Transfer House (Area J)	3 days
35	**Conveyors**	**16 days**
36	Clean Conveyors - 5, 5A, 6, 6A, 16, 17, 7W, 7E, 7, 18, 18S, 18N ,11, 15, 8, 10C, 9A, 9, 12, 12A, 13, 14, 14A, 3 and 3A	16 days
37	Remove Bags and Clean Dust Collectors	4 days
38	Clean and Secure Miscellaneous Fuel Yard Equipment and clean laydown yards	5 days
39	**Nox Out Ultra System**	**14 days**
40	Drain and clean Tank 1100, 1200 and 1300	3 days
41	Drain and clean the Solutionizing Tank	3 days
42	Drain and clean the equipment in the HFD Enclosure	3 days
43	Open, clean and vent the equipment and piping by the MDM building	5 days
44	**Intake Structures and Intake Chemical Feed System**	**1 day**
45	Remove Chemicals	1 day
46	**Underground Circulating Water Piping**	**3 days**
47	Drain the Underground Circulating Water Piping	3 days
48	**Sewage Treatment**	**4 days**
49	Clean the Sewage Treatment Facility	4 days
50	**Water Treatment**	**17 days**



Sibley Common Retirement

ID	Task Name	Duration
51	Drain and clean clarifier	2 days
52	Empty, clean and vent gravity filters	2 days
53	Open and vent storage tanks	1 day
54	Empty, clean and vent carbon filters	3 days
55	Remove RO membranes and open membrane housings	1 day
56	Remove deminerilizer resins, clean and vent vessels	4 days
57	Remove chemicals and flush storage tanks	2 days
58	Flush and vent all water treatment piping.	2 days
59	**Fuel Storage**	**4 days**
60	Remove propane from propane storage tanks and vent.	1 day
61	Vent propane piping and vaporizer.	1 day
62	Drain and vent the Diesel Fuel Tank	2 days
63	**Unit 3 Diesel Generator**	**1 day**
64	Drain and vent diesel generator tank	1 day
65	**Post Retirement Closure Activities**	**20 days**
66	Post Retirement Closure Activities	20 days



Sibley Common Dismantlement

Owner Additional Costs				
Pre-Dismantlement Activities			$0	
Overhead During Dismantlement			$0	
Owner Costs Total*				$0
Demolition General Contractor (DGC) Costs				
Additional Site Management			$123,085	
Equipment Rental			$600,070	
Consummables			$899,049	
Scrap Crew(s)			$892,097	
Dismantlement			$3,939,133	
Contractor Direct Cost*		$6,453,434		
Contractor Allowances				
DGC Insurance	2.00%		$129,069	
Contingency/Profit	15.00%		$987,375	
Performance Bond	2.00%		$151,398	
Contractor Costs Total:				$7,721,276

Total:		$7,721,276
Owner Internal Costs:	5.00%	$386,064
Owner Contingency:	25.00%	$2,026,835
Sibley Common Dismantlement Opinion of Probable Cost:		$10,134,174

*Owner Costs Total + Contractor Direct Costs = Manpower Loaded Schedule Total w/o Contractor Allowances
= $6,453,434

Sibley Common Dismantlement

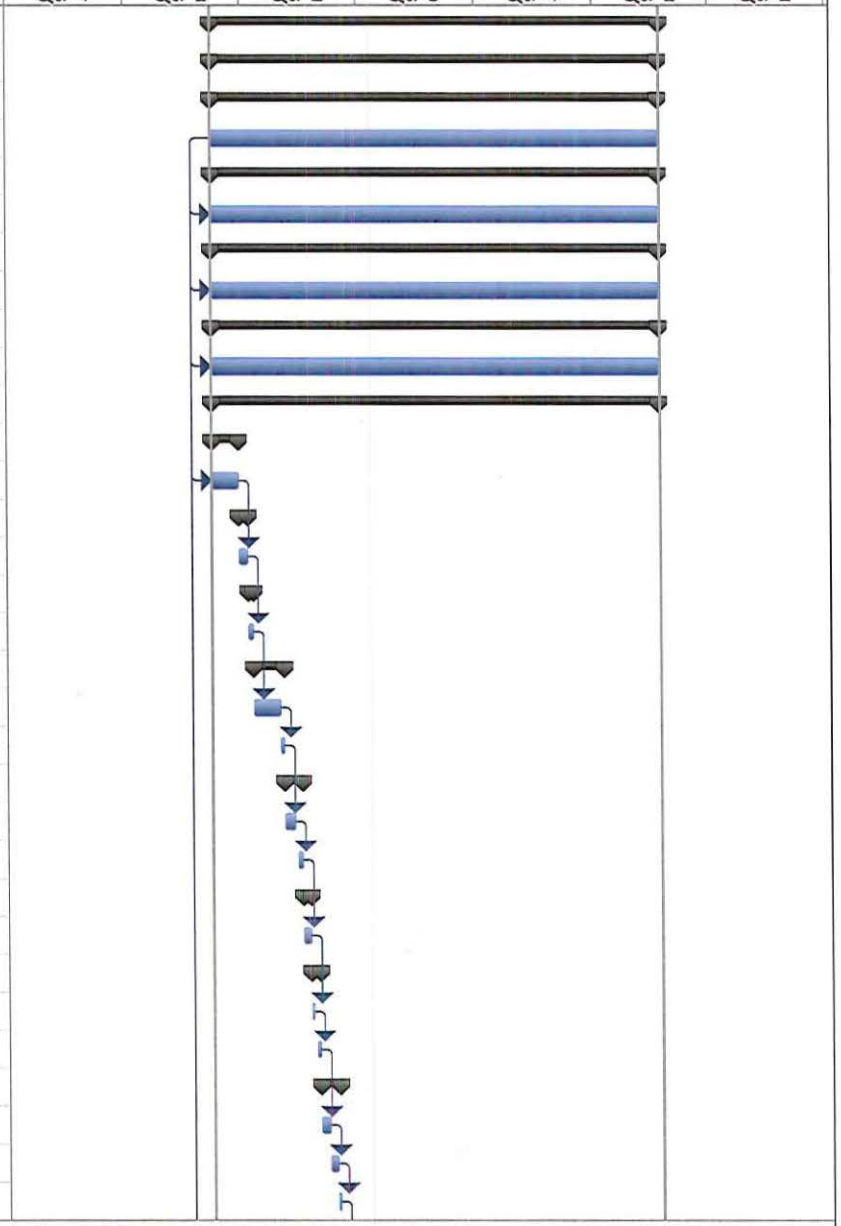
ID	Task Name	Cost
1	**Sibley Common Dismantlement**	**$6,453,436.08**
2	**Overheads**	**$2,514,302.40**
3	**Common Removal Overheads**	**$123,085.68**
4	Added Overhead Staff for Common Removals	$123,085.68
5	**Common Removal Equipment Rental**	**$600,070.08**
6	Common Removal Equipment Rental	$600,070.08
7	**Demolition Contractor Consummables**	**$899,049.36**
8	Consummables	$899,049.36
9	**Scrap Crew**	**$892,097.28**
10	Crew(s) to Handle Scrap Material	$892,097.28
11	**Dismantlement Activities**	**$3,939,133.68**
12	**Administration/Service Building**	**$53,740.80**
13	Remove Administration/Service Building	$53,740.80
14	**Fuel Yard Office Building**	**$17,913.60**
15	Remove Fuel Yard Office Building	$17,913.60
16	**Temporary Service Building**	**$7,165.44**
17	Remove Temporary Service Building	$7,165.44
18	**Parking Lots and Plant Roads**	**$64,488.96**
19	Plant Roads and Parking Areas	$53,740.80
20	Guard Shack	$10,748.16
21	**Warehouse(s)**	**$35,827.20**
22	Remove Main Warehouse	$21,496.32
23	Remove Middle Warehouse	$14,330.88
24	**Tractor Shed**	**$14,330.88**
25	Remove Tractor Shed	$14,330.88
26	**Out Buildings**	**$11,607.60**
27	Remove Insulators Shack	$4,643.04
28	Remove Hedrick Hall	$6,964.56
29	**Fuel Equipment**	**$25,536.72**
30	Remove Propane Tanks and above ground piping	$11,607.60
31	Remove Vaporizer	$9,286.08
32	Remove Diesel Generator Tank	$4,643.04
33	**Fuel Yard**	**$302,143.44**
34	Remove Rotary Car Dumper	$23,215.20
35	Remove Sample House	$23,215.20
36	Remove Transfer Hoppers	$11,607.60
37	Remove Bituminous Stackout Reclaim	$16,250.64
38	Remove Sub-Bituminous Stackout/Reclaim	$16,250.64
39	Remove Transfer House 2	$13,929.12
40	Remove New Crusher House	$34,822.80
41	Remove the Blended Stackout/Reclaim	$16,250.64
42	Remove Old Crusher House	$27,858.24
43	Remove Transfer House	$13,929.12
44	**Conveyors**	**$46,430.40**

Sibley Common Dismantlement

ID	Task Name	Cost
45	Remove Conveyors - 5, 5A, 6, 6A, 16, 17, 7W, 7E, 7, 18, 18S, 18N ,1	$46,430.40
46	Remove Dust Collectors	$4,643.04
47	Remove Miscellaneous Fuel Yard Equipment	$53,740.80
48	**Nox Out Ultra System**	**$18,572.16**
49	Remove Tank 1100, 1200 and 1300	$4,643.04
50	Remove Solutionizing Tank	$4,643.04
51	Remove HFD Enclosure	$6,964.56
52	Remove miscellaneous piping and steel.	$2,321.52
53	**Underground Circulating Water Piping**	**$53,740.80**
54	Excavate Underground Circulating Water Piping	$17,913.60
55	Collapse Underground Circulating Water Piping	$10,748.16
56	Backfill and Compact Over Circulating Water Piping	$25,079.04
57	**Sewage Treatment**	**$21,496.32**
58	Remove Sewage Treatment Pumps and Miscellaneous Equipment	$7,165.44
59	Remove Sewage Treatment Concrete Structures	$14,330.88
60	**Yard Fire Water Systems**	**$21,496.32**
61	Remove Hydrants and Fire Water System Piping Down to 3' Below Grade	$21,496.32
62	**Water Treatment**	**$46,430.40**
63	Remove clarifier	$4,643.04
64	Remove gravity filters	$4,643.04
65	Remove storage tanks	$9,286.08
66	Remove carbon filters	$4,643.04
67	Remove RO skids	$4,643.04
68	Remove demineralizer vessels	$6,964.56
69	Remove regeneration equipment	$6,964.56
70	Remove miscellanous piping and support equipment	$4,643.04
71	**Unit 3 Diesel Generator**	**$4,643.04**
72	Remove Unit 3 Diesel Generator	$4,643.04
73	**Common Stack**	**$3,240,000.00**
74	Remove Common Stack to Grade	$3,240,000.00
75	**Final Site Grading and Drainage**	**$0.00**
76	Final Site Grading and Drainage	$0.00

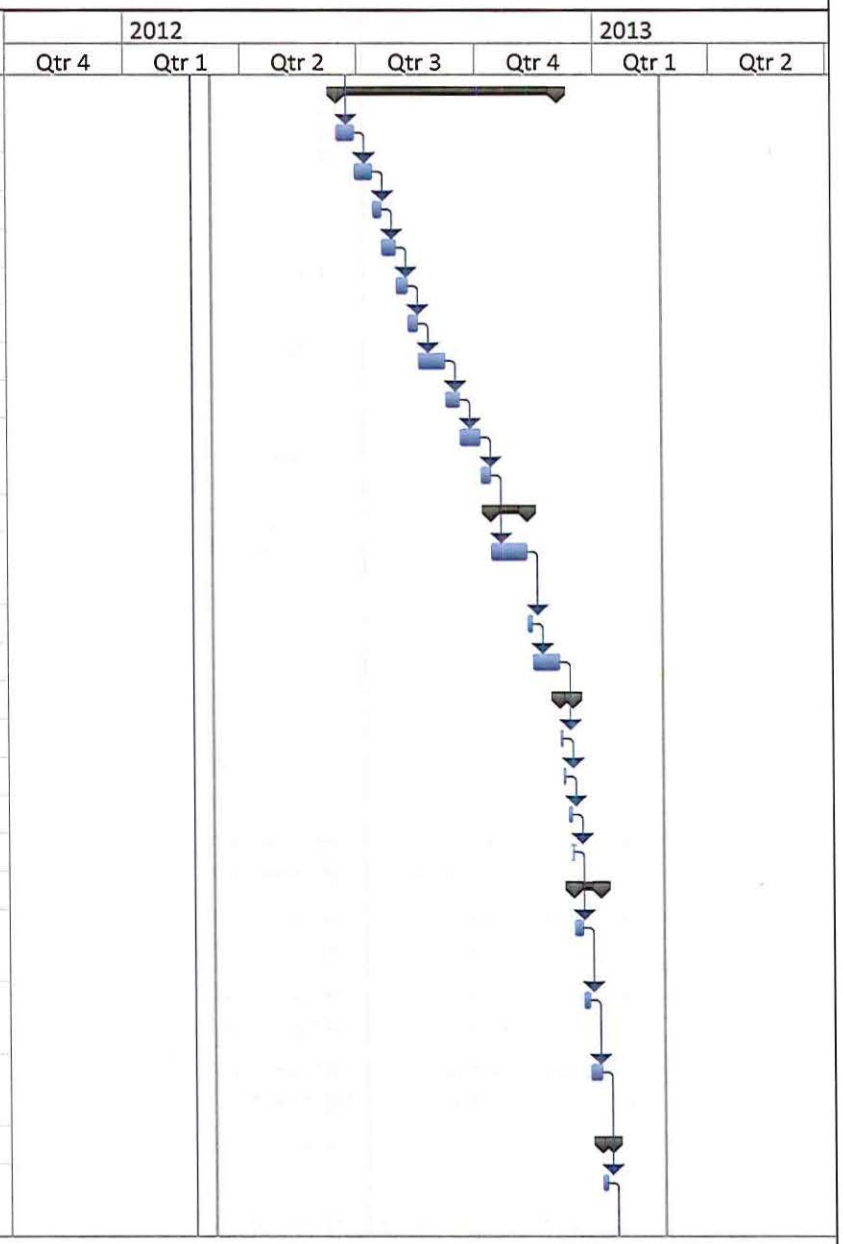
Sibley Common Dismantlement

ID	Task Name	Duration
1	**Sibley Common Dismantlement**	**250 days**
2	**Overheads**	**249 days**
3	**Common Removal Overheads**	**249 days**
4	Added Overhead Staff for Common Removals	249 days
5	**Common Removal Equipment Rental**	**249 days**
6	Common Removal Equipment Rental	249 days
7	**Demolition Contractor Consummables**	**249 days**
8	Consummables	249 days
9	**Scrap Crew**	**249 days**
10	Crew(s) to Handle Scrap Material	249 days
11	**Dismantlement Activities**	**249 days**
12	**Administration/Service Building**	**15 days**
13	Remove Administration/Service Building	15 days
14	**Fuel Yard Office Building**	**5 days**
15	Remove Fuel Yard Office Building	5 days
16	**Temporary Service Building**	**2 days**
17	Remove Temporary Service Building	2 days
18	**Parking Lots and Plant Roads**	**18 days**
19	Plant Roads and Parking Areas	15 days
20	Guard Shack	3 days
21	**Warehouse(s)**	**10 days**
22	Remove Main Warehouse	6 days
23	Remove Middle Warehouse	4 days
24	**Tractor Shed**	**4 days**
25	Remove Tractor Shed	4 days
26	**Out Buildings**	**5 days**
27	Remove Insulators Shack	2 days
28	Remove Hedrick Hall	3 days
29	**Fuel Equipment**	**11 days**
30	Remove Propane Tanks and above ground piping	5 days
31	Remove Vaporizer	4 days
32	Remove Diesel Generator Tank	2 days



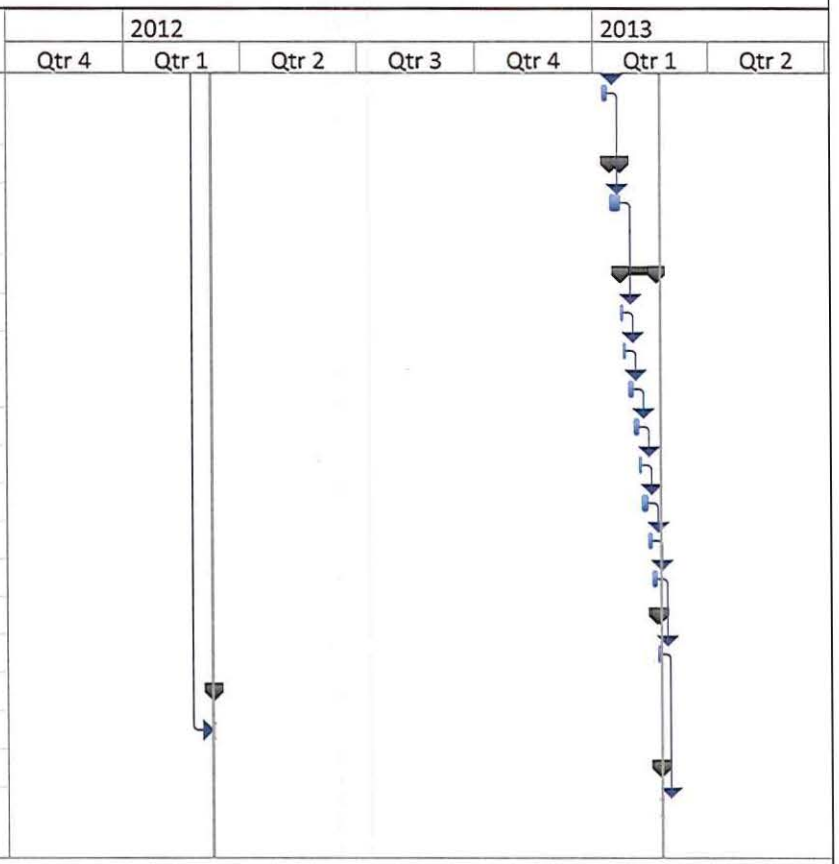
Sibley Common Dismantlement

ID	Task Name	Duration
33	**Fuel Yard**	**122 days**
34	Remove Rotary Car Dumper	10 days
35	Remove Sample House	10 days
36	Remove Transfer Hoppers	5 days
37	Remove Bituminous Stackout Reclaim	7 days
38	Remove Sub-Bituminous Stackout/Reclaim	7 days
39	Remove Transfer House 2	6 days
40	Remove New Crusher House	15 days
41	Remove the Blended Stackout/Reclaim	7 days
42	Remove Old Crusher House	12 days
43	Remove Transfer House	6 days
44	**Conveyors**	**20 days**
45	Remove Conveyors - 5, 5A, 6, 6A, 16, 17, 7W, 7E, 7, 18, 18S, 18N ,11, 15, 8, 10C, 9A, 9, 12, 12A, 13, 14, 14A, 3 and 3A	20 days
46	Remove Dust Collectors	2 days
47	Remove Miscellaneous Fuel Yard Equipment	15 days
48	**Nox Out Ultra System**	**8 days**
49	Remove Tank 1100, 1200 and 1300	2 days
50	Remove Solutionizing Tank	2 days
51	Remove HFD Enclosure	3 days
52	Remove miscellaneous piping and steel.	1 day
53	**Underground Circulating Water Piping**	**15 days**
54	Excavate Underground Circulating Water Piping	5 days
55	Collapse Underground Circulating Water Piping	3 days
56	Backfill and Compact Over Circulating Water Piping	7 days
57	**Sewage Treatment**	**6 days**
58	Remove Sewage Treatment Pumps and Miscellaneous Equipment	2 days



Sibley Common Dismantlement

ID	Task Name	Duration
59	Remove Sewage Treatment Concrete Structures	4 days
60	**Yard Fire Water Systems**	**6 days**
61	Remove Hydrants and Fire Water System Piping Down to 3' Below Grade	6 days
62	**Water Treatment**	**20 days**
63	Remove clarifier	2 days
64	Remove gravity filters	2 days
65	Remove storage tanks	4 days
66	Remove carbon filters	2 days
67	Remove RO skids	2 days
68	Remove demineralizer vessels	3 days
69	Remove regeneration equipment	3 days
70	Remove miscellanous piping and support equipment	2 days
71	**Unit 3 Diesel Generator**	**2 days**
72	Remove Unit 3 Diesel Generator	2 days
73	**Common Stack**	**1 day**
74	Remove Common Stack to Grade	1 day
75	**Final Site Grading and Drainage**	**1 day**
76	Final Site Grading and Drainage	1 day



SOUTH HARPER

SOUTH HARPER STATION

The South Harper Generating Station consists of three natural gas-fired combustion turbine generator sets.

Combined, these combustion turbines have an SPP-accredited unit rating of 313.9 MW. South Harper was placed into service in 2005. Each unit is comprised of a Siemens Model 504D5A combustion turbine with a generator step-up transformer and auxiliary power transformer.

The following are the major systems and equipment that were included in the retirement and dismantlement of the South Harper Generating Station.

1. Combustion turbine generator sets and auxiliaries.
2. Generation step-up and auxiliary transformers.
3. Outdoor switchgear.
4. Exhaust stacks.
5. Administration building.
6. Natural gas filtering skid.
7. Flammable material storage building.
8. Service/Instrument air compressors.
9. Waste water tank.

South Harper Retirement

Owner Costs			
Pre-Retirement Activities		$43,834	
Retirement Activities		$219,498	
Post-Retirement Activities		$45,152	
Owner Direct Total			$308,484
Owner Internal Costs	5.00%		$15,424
Owner Contingency:	25.00%		$80,977
South Harper Retirement Opinion of Probable Cost:			$404,885.25

South Harper Retirement

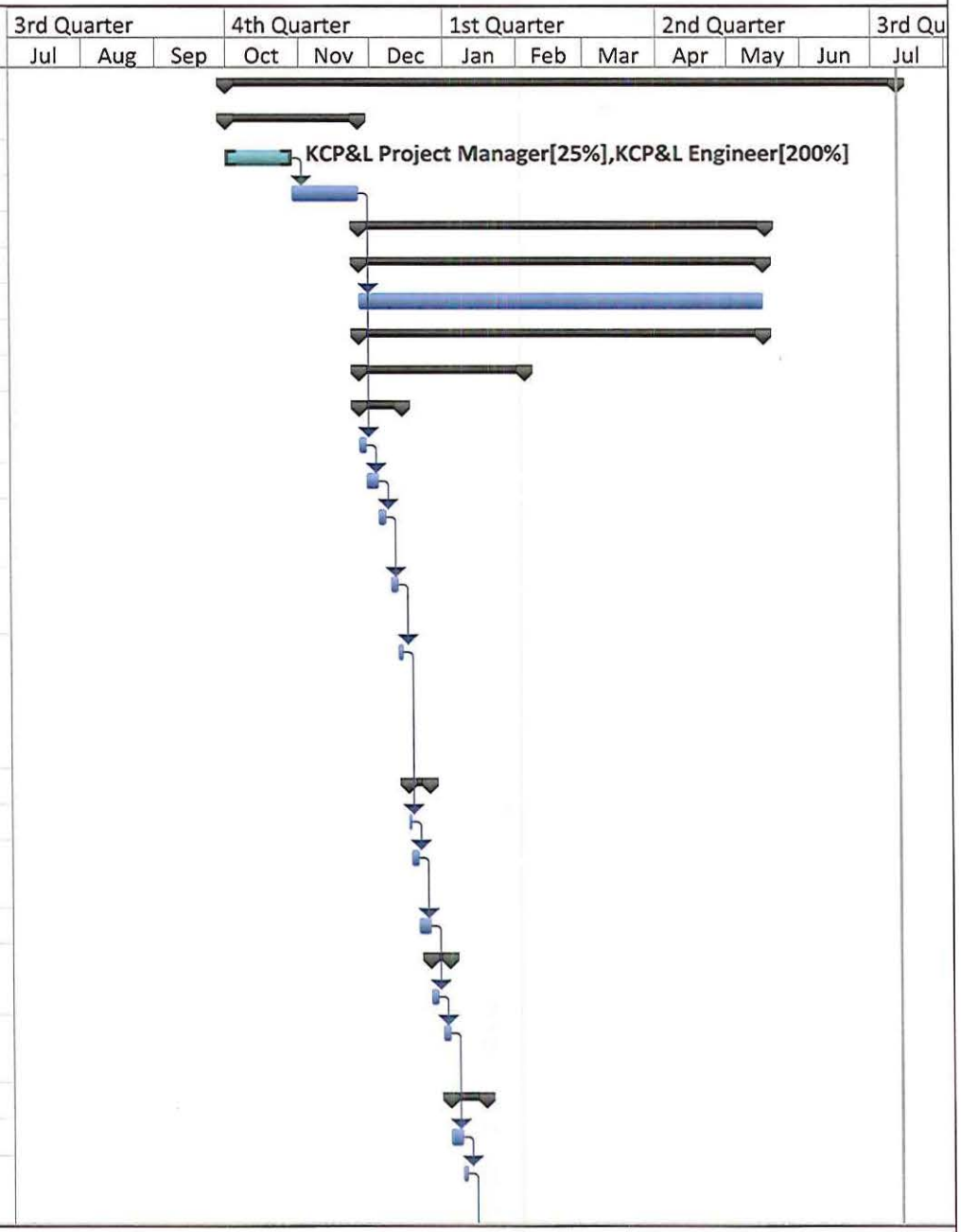
ID	Task Name	Cost
1	**South Harper Retirement**	**$308,484.94**
2	**Pre-Retirement Activities**	**$43,834.00**
3	Permitting Review	$23,466.00
4	Develop Detailed Retirement Plan	$20,368.00
5	**Retirement**	**$219,498.94**
6	**Project Management During Retirement**	**$98,648.46**
7	Project Management During Retirement	$98,648.46
8	**Retirement Activities**	**$119,567.28**
9	**Electrical**	**$44,664.00**
10	**Medium and Low Voltage Drawout Switchgear**	**$12,505.92**
11	De-energize all buses at the source.	$2,679.84
12	Open all circuit breakers.	$2,679.84
13	Rack all circuit breakers into the fully withdrawn, disconnected position.	$2,679.84
14	Verify that the closing/tripping springs are discharged.	$2,679.84
15	De-energize control power and auxiliary power circuits of each circuit breaker at the source and by opening control power circuit breakers or removing fuses in each breaker cubicle.	$1,786.56
16	**Motor Control Centers**	**$6,252.96**
17	De-energize all buses at the source.	$893.28
18	Open all circuit breakers and disconnect switches.	$2,679.84
19	Remove all fuses in control circuits.	$2,679.84
20	**Low-voltage Switchboards and Panelboards**	**$5,359.68**
21	De-energize all buses at the source.	$2,679.84
22	Open all circuit breakers and disconnect switches.	$2,679.84
23	**Oil-Filled Power Transformers**	**$9,826.08**
24	De-energize all buses at the source.	$2,679.84
25	Open all circuit breakers and disconnect switches.	$1,786.56
26	De-energize all buses at the source.	$2,679.84
27	Open all circuit breakers and disconnect switches.	$2,679.84
28	**Dry-type Power Transformers**	**$4,466.40**
29	De-energize all transformer primaries and verify that the secondary is de-energized.	$2,679.84
30	De-energize all low-voltage AC or DC power sources for space heaters, cooling equipment, controls, etc. at the source and open circuit breakers or remove fuses at transformer end.	$1,786.56
31	**Motors**	**$6,252.96**
32	De-energize all primary power at the source.	$1,786.56
33	De-energize all low-voltage power sources for space heaters or other auxiliary equipment at the source.	$1,786.56
34	Drain lube oil system (if applicable) and dispose of oil.	$2,679.84
35	**Administration Building**	**$9,342.40**
36	Secure the Administration Building	$9,342.40

South Harper Retirement

ID	Task Name	Cost
37	**Flammabe Material Storage Building**	**$5,605.44**
38	Secure the Flammable Material Storage Building	$5,605.44
39	**Fuel Gas System**	**$10,783.04**
40	Isolate Fuel Gas System	$3,907.44
41	Vent Fuel Gas Piping and Equipment	$2,528.16
42	Open and Vent Knock-Out Drum	$861.84
43	Drain, Open and Vent the Drain Tank	$861.84
44	Empty the Coalescing Filter	$1,761.92
45	Open and Vent Equipment on the CT Gas Valve Module	$861.84
46	**Lube Oil Cooling Water System**	**$7,756.56**
47	Open and Drain the Water Side of the Lube Oil Coolers	$5,171.04
48	Open and Vent the Coolers and Expansion Tank	$2,585.52
49	**Oily Drain Tank**	**$3,954.00**
50	Open and Pump Out the Oily Drain Tank	$3,954.00
51	**Wash Water Skid**	**$5,171.04**
52	Open and Drain the Detergent Tank	$1,723.68
53	Open and Drain the Demineralized Water Tank	$1,723.68
54	Empty the Demineralized Water Tank	$1,723.68
55	**Compressed Air**	**$3,447.36**
56	Empty Dessiccant Air Dryers and Vent	$1,723.68
57	Open and Vent the Air Reciever	$1,723.68
58	**Miscelleaneous Piping**	**$7,756.56**
59	Open and Vent the Exhaust Frame Cooling Piping	$2,585.52
60	Open and Vent the CT Air Processing Piping	$0.00
61	Open and Vent the Inlet Air Heating Piping	$2,585.52
62	Open and Vent the CT Air Processing Piping	$2,585.52
63	**Fire Protection Piping**	**$6,856.48**
64	Empty the CO2 Storage Tank	$5,132.80
65	Open and Vent the Fire Protection Piping	$1,723.68
66	**Lube Oil System**	**$11,587.04**
67	Empty and Remove from Site the Lubricating Oil	$6,416.00
68	Drain Lubricating Oil Piping	$3,447.36
69	Open and Vent Lubricating Oil Piping	$1,723.68
70	**Potable Water**	**$2,643.36**
71	Disconnect Potable Water at Property Boundary	$2,643.36
72	**Waste Water Tank**	**$1,283.20**
73	Open, Drain and Vent Waste Water Tank	$1,283.20
74	**Post Retirement Closure Activity**	**$45,152.00**
75	Post Retirement Closure Activity	$45,152.00

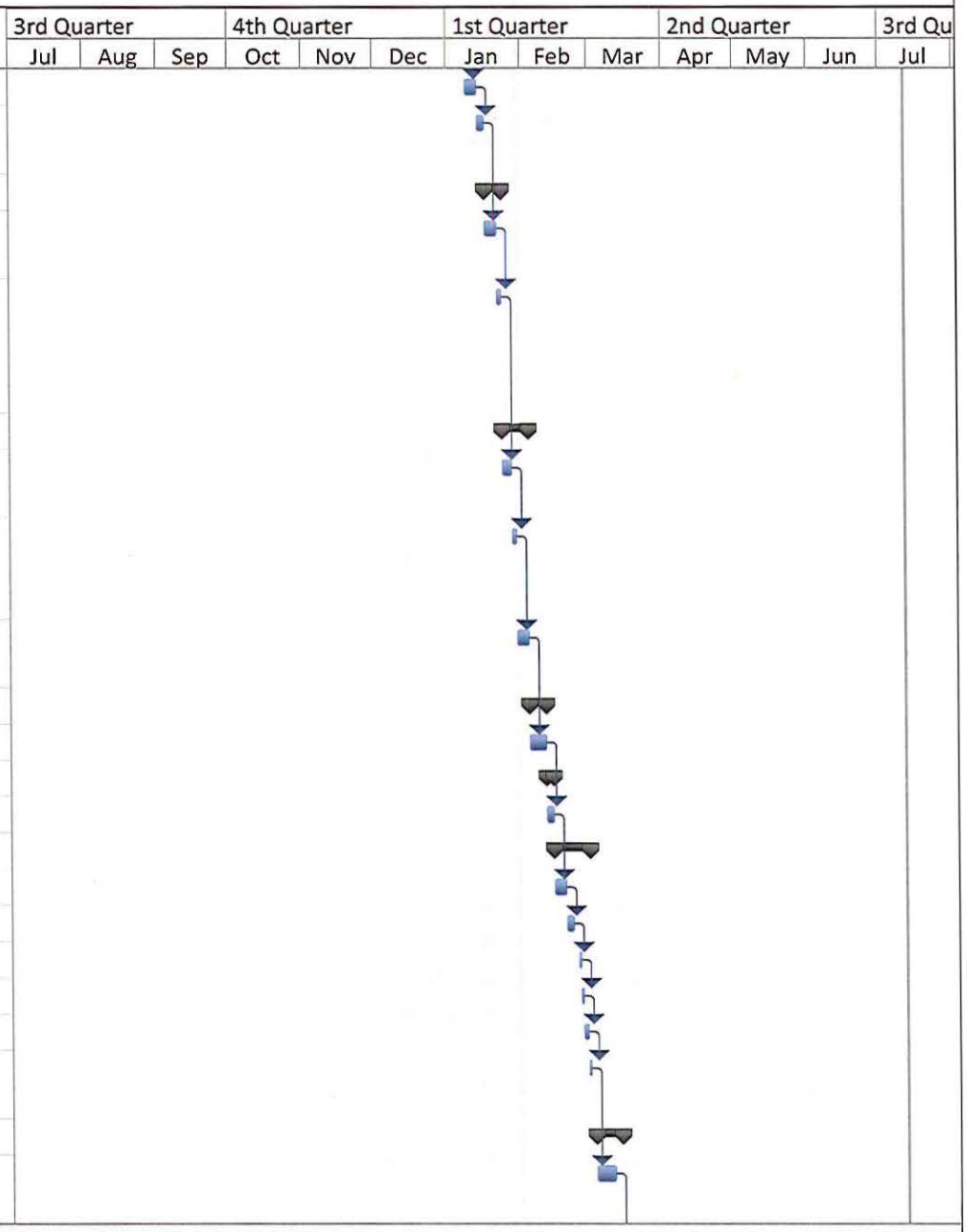
South Harper Retirement

ID	Task Name	Duration
1	**South Harper Retirement**	**204 days**
2	**Pre-Retirement Activities**	**40 days**
3	Permitting Review	20 days
4	Develop Detailed Retirement Plan	20 days
5	**Retirement**	**124 days**
6	**Project Management During Retirement**	**123 days**
7	Project Management During Retirement	123 days
8	**Retirement Activities**	**123 days**
9	**Electrical**	**50 days**
10	**Medium and Low Voltage Drawout Switchg**	**14 days**
11	De-energize all buses at the source.	3 days
12	Open all circuit breakers.	3 days
13	Rack all circuit breakers into the fully withdrawn, disconnected position.	3 days
14	Verify that the closing/tripping springs are discharged.	3 days
15	De-energize control power and auxiliary power circuits of each circuit breaker at the source and by opening control power circuit breakers or removing fuses in each	2 days
16	**Motor Control Centers**	**7 days**
17	De-energize all buses at the source.	1 day
18	Open all circuit breakers and disconnect switches.	3 days
19	Remove all fuses in control circuits.	3 days
20	**Low-voltage Switchboards and Panelboards**	**6 days**
21	De-energize all buses at the source.	3 days
22	Open all circuit breakers and disconnect switches.	3 days
23	**Oil-Filled Power Transformers**	**11 days**
24	De-energize all buses at the source.	3 days
25	Open all circuit breakers and disconnect switches.	2 days



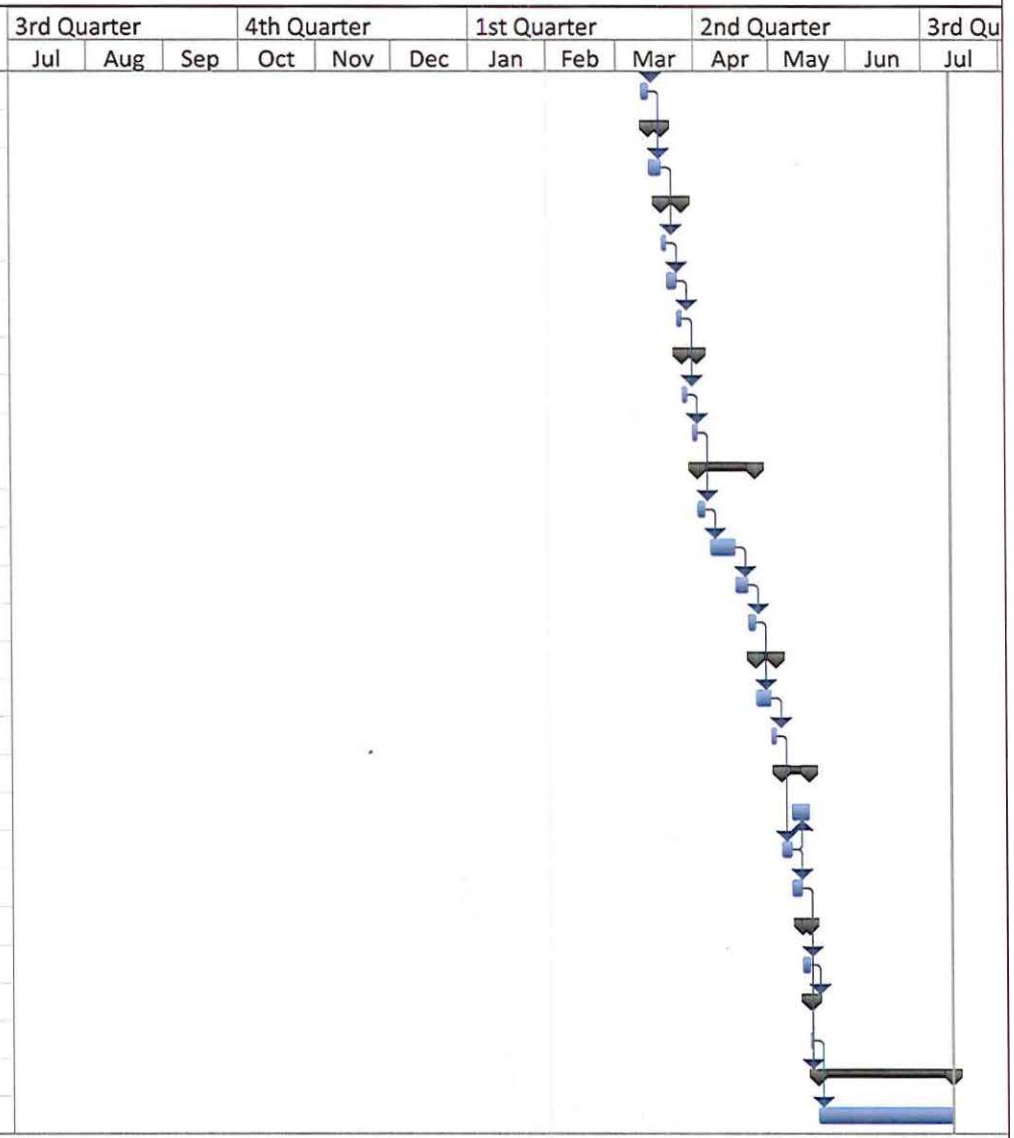
South Harper Retirement

ID	Task Name	Duration
26	De-energize all buses at the source.	3 days
27	Open all circuit breakers and disconnect switches.	3 days
28	**Dry-type Power Transformers**	**5 days**
29	De-energize all transformer primaries and verify that the secondary is de-energized.	3 days
30	De-energize all low-voltage AC or DC power sources for space heaters, cooling equipment, controls, etc. at the source and open circuit breakers or remove fuses	2 days
31	**Motors**	**7 days**
32	De-energize all primary power at the source.	2 days
33	De-energize all low-voltage power sources for space heaters or other auxiliary equipment at the source.	2 days
34	Drain lube oil system (if applicable) and dispose of oil.	3 days
35	**Administration Building**	**5 days**
36	Secure the Administration Building	5 days
37	**Flammabe Material Storage Building**	**3 days**
38	Secure the Flammable Material Storage Build	3 days
39	**Fuel Gas System**	**11 days**
40	Isolate Fuel Gas System	3 days
41	Vent Fuel Gas Piping and Equipment	3 days
42	Open and Vent Knock-Out Drum	1 day
43	Drain, Open and Vent the Drain Tank	1 day
44	Empty the Coalescing Filter	2 days
45	Open and Vent Equipment on the CT Gas Valve Module	1 day
46	**Lube Oil Cooling Water System**	**9 days**
47	Open and Drain the Water Side of the Lube Oil Coolers	6 days



South Harper Retirement

ID	Task Name	Duration
48	Open and Vent the Coolers and Expansion Ta	3 days
49	**Oily Drain Tank**	**3 days**
50	Open and Pump Out the Oily Drain Tank	3 days
51	**Wash Water Skid**	**6 days**
52	Open and Drain the Detergent Tank	2 days
53	Open and Drain the Demineralized Water Tar	2 days
54	Empty the Demineralized Water Tank	2 days
55	**Compressed Air**	**4 days**
56	Empty Dessiccant Air Dryers and Vent	2 days
57	Open and Vent the Air Reciever	2 days
58	**Miscelleaneous Piping**	**17 days**
59	Open and Vent the Exhaust Frame Cooling Pi	3 days
60	Open and Vent the CT Air Processing Piping	8 days
61	Open and Vent the Inlet Air Heating Piping	3 days
62	Open and Vent the CT Air Processing Piping	3 days
63	**Fire Protection Piping**	**6 days**
64	Empty the CO2 Storage Tank	4 days
65	Open and Vent the Fire Protection Piping	2 days
66	**Lube Oil System**	**9 days**
67	Empty and Remove from Site the Lubricating	5 days
68	Drain Lubricating Oil Piping	4 days
69	Open and Vent Lubricating Oil Piping	2 days
70	**Potable Water**	**3 days**
71	Disconnect Potable Water at Property Bound	3 days
72	**Waste Water Tank**	**1 day**
73	Open, Drain and Vent Waste Water Tank	1 day
74	**Post Retirement Closure Activity**	**40 days**
75	Post Retirement Closure Activity	40 days



South Harper Dismantlement

Owner Costs				
Pre-Dismantlement Activities			$892,760	
Overhead During Dismantlement			$1,493,362	
Post-Dismantlement Activities			$49,140	
Owner Costs Total*				$2,435,262
Demolition General Contractor (DGC) Costs				
Site Management			$814,043	
Equipment Rental			$1,386,092	
Consummables			$138,875	
Scrap Crew(s)			$364,064	
Dismantlement			$1,236,894	
Contractor Direct Cost*		$3,939,968		
Contractor Allowances				
DGC Insurance	2.00%		$78,799	
Contingency/Profit	15.00%		$602,815	
Performance Bond	2.00%		$92,431.65	
Contractor Costs Total:				$4,714,014
Total:				$7,149,276
Owner Internal Costs:	5.00%			$357,464
Owner Contingency:	25.00%			$1,876,685
South Harper Dismantlement Opinion of Probable Cost:				$9,383,425

*Owner Costs Total + Contractor Direct Costs = Manpower Loaded Schedule Total w/o Contractor Allowances
= $6,375,230

South Harper Dismantlement

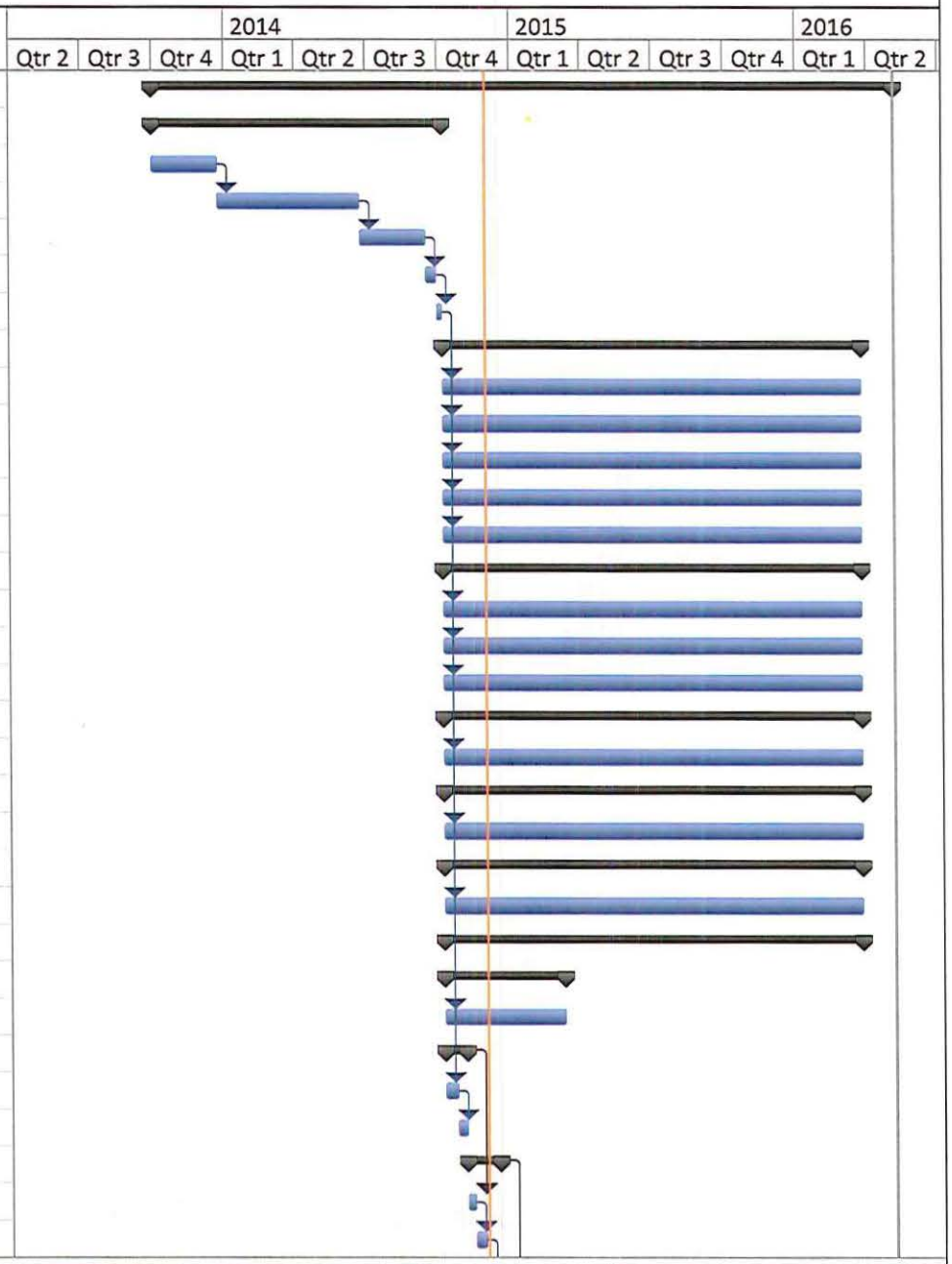
ID	Task Name	Cost
1	**South Harper CT Dismantlement**	**$6,375,218.40**
2	**Pre-Demolition Activities**	**$892,760.32**
3	Detailed Planning & Hire Owner's Engineer	$104,441.28
4	Detailed Site Characterization Study	$610,335.44
5	Hire Demolition general Contractor	$167,184.00
6	KCP&L Prepares Unit for Dismantlement	$10,799.60
7	Demolition Contractor Mobilizes on Site	$0.00
8	**KCP&L Overhead during Dismantlement**	**$1,493,362.96**
9	KCP&L Project Manager	$237,306.80
10	KCP&L Administrative Support	$87,752.96
11	KCP&L Engineer	$390,047.20
12	Owners Engineer Project Manager	$116,432.00
13	Owners Engineer - Engineer	$661,824.00
14	**Demolition Contractor Overhead during Dismantlement**	**$814,043.52**
15	Demolition Contractor Project Manager	$230,320.88
16	Demolition Contractor Safety Manager	$205,073.52
17	Demolition Contractor Superintendent	$378,649.12
18	**Demolition Contractor Equipment Rental Cost**	**$1,386,092.32**
19	Equipment Rental	$1,386,092.32
20	**Demolition Contractor Consumables**	**$138,860.48**
21	Consumables	$138,860.48
22	**Scrap Crews**	**$364,064.48**
23	Crew to Handle Scrap Material(s)	$364,064.48
24	**Dismantlement**	**$1,236,894.32**
25	**Electrical**	**$197,049.60**
26	Electrical Demolition of Equipment	$197,049.60
27	**Fuel Gas System**	**$21,113.20**
28	Remove all above grade fuel gas piping.	$6,782.32
29	Gas Filter Skid	$14,330.88
30	**Lube Oil System**	**$53,740.80**
31	Lube Oil Piping	$14,330.88
32	Lube Oil Pumps	$17,913.60
33	Lube Oil Tanks	$21,496.32
34	**Compressed Air System**	**$21,496.32**
35	Compressed Air Piping	$10,748.16
36	Compressors	$5,374.08
37	Air Receiver	$3,582.72
38	Dryer	$1,791.36
39	**Fire Protection**	**$26,870.40**
40	Fire Protection Piping	$19,704.96
41	CO2 Storage Tank	$7,165.44
42	**Wash Water Skid**	**$10,748.16**
43	Detergent Tank	$10,748.16
44	**Miscellaneous Piping**	**$62,697.60**

South Harper Dismantlement

ID	Task Name	Cost
45	Exhaust Frame Cooling Piping	$17,913.60
46	CT Air Processing Piping	$21,496.32
47	Inlet Air Heating Piping	$23,287.68
48	**Generator**	**$0.00**
49	Generators	$0.00
50	**Combustion Turbine**	**$263,329.92**
51	Inlet Heaters	$17,913.60
52	Inlet ducts	$26,870.40
53	Exhaust ducts	$35,827.20
54	Combustion Turbines	$62,697.60
55	Combustion Turbine Foundations	$66,280.32
56	Enclosures	$53,740.80
57	**CEMS**	**$42,992.64**
58	CEMS Building	$21,496.32
59	CEMS Building Foundation	$21,496.32
60	**Stack**	**$80,611.20**
61	Stacks	$80,611.20
62	**Buildings**	**$23,287.68**
63	Remove Administration Building	$17,913.60
64	Remove Flammable Material Storage Building	$5,374.08
65	**Waste Water Tank**	**$8,956.80**
66	Remove Waste Water Tank	$8,956.80
67	**Site Prep**	**$424,000.00**
68	Final Grading and Drainage	$424,000.00
69	**Post Dismantlement Activities**	**$49,140.00**
70	Post Dismantlement Activities	$49,140.00

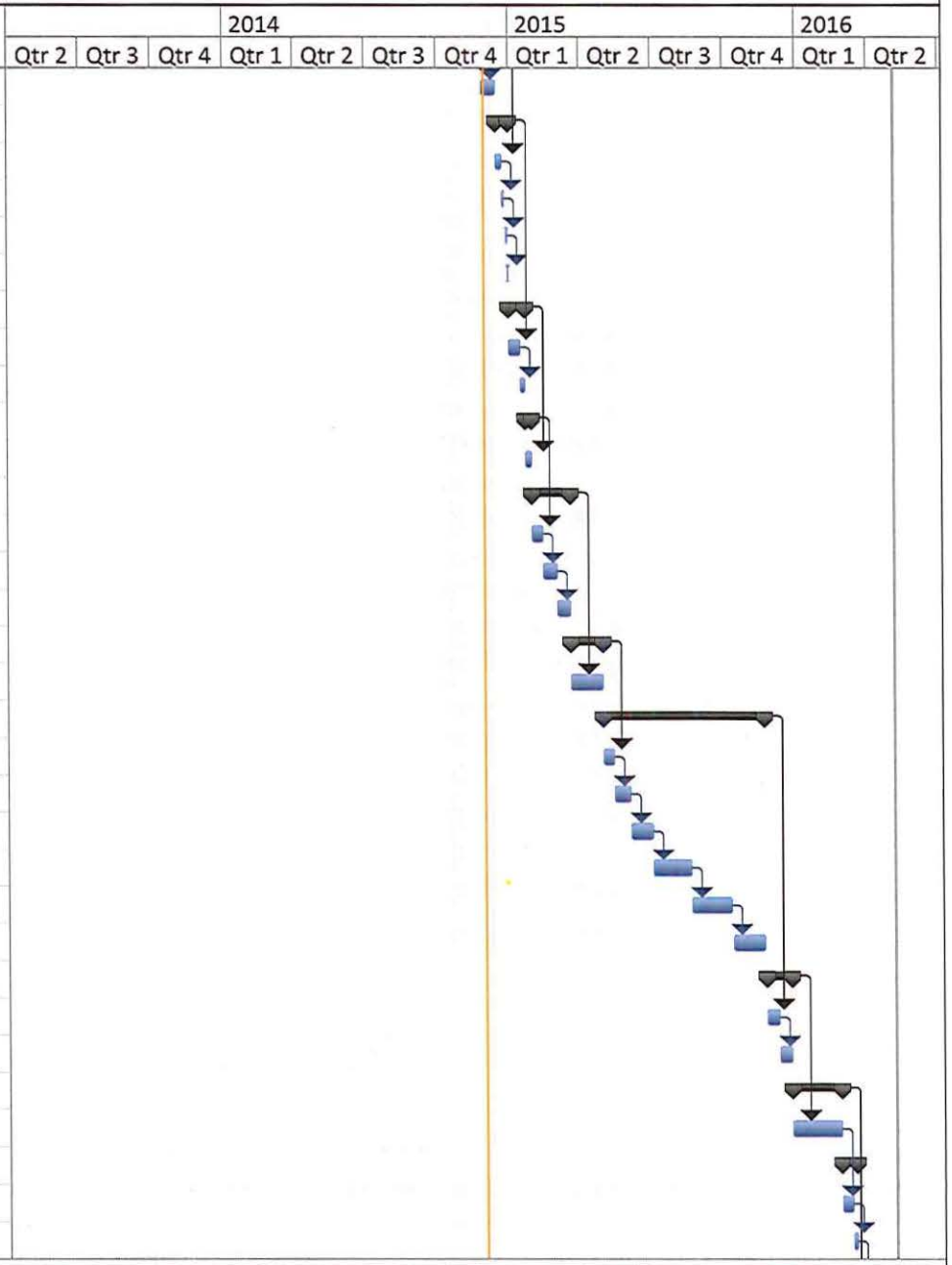
South Harper Dismantlement

ID	Task Name	Duration
1	**South Harper CT Dismantlement**	**678 days**
2	**Pre-Demolition Activities**	**265 days**
3	Detailed Planning & Hire Owner's Engineer	3 mons
4	Detailed Site Characterization Study	130 days
5	Hire Demolition general Contractor	3 mons
6	KCP&L Prepares Unit for Dismantlement	2 wks
7	Demolition Contractor Mobilizes on Site	5 days
8	**KCP&L Overhead during Dismantlement**	**383 days**
9	KCP&L Project Manager	383 days
10	KCP&L Administrative Support	383 days
11	KCP&L Engineer	383 days
12	Owners Engineer Project Manager	383 days
13	Owners Engineer - Engineer	383 days
14	**Demolition Contractor Overhead during Dismantlemer**	**383 days**
15	Demolition Contractor Project Manager	383 days
16	Demolition Contractor Safety Manager	383 days
17	Demolition Contractor Superintendent	383 days
18	**Demolition Contractor Equipment Rental Cost**	**383 days**
19	Equipment Rental	383 days
20	**Demolition Contractor Consumables**	**383 days**
21	Consumables	383 days
22	**Scrap Crews**	**383 days**
23	Crew to Handle Scrap Material(s)	383 days
24	**Dismantlement**	**383 days**
25	**Electrical**	**110 days**
26	Electrical Demolition of Equipment	110 days
27	**Fuel Gas System**	**20 days**
28	Remove all above grade fuel gas piping.	12 days
29	Gas Filter Skid	8 days
30	**Lube Oil System**	**30 days**
31	Lube Oil Piping	8 days
32	Lube Oil Pumps	10 days



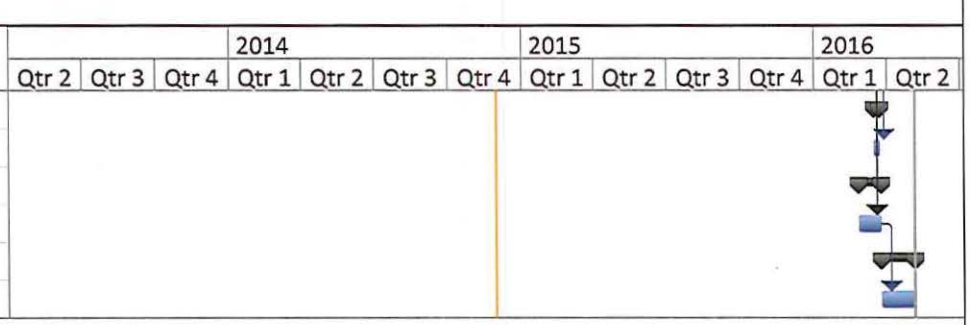
South Harper Dismantlement

ID	Task Name	Duration
33	Lube Oil Tanks	12 days
34	**Compressed Air System**	**12 days**
35	Compressed Air Piping	6 days
36	Compressors	3 days
37	Air Receiver	2 days
38	Dryer	1 day
39	**Fire Protection**	**15 days**
40	Fire Protection Piping	11 days
41	CO2 Storage Tank	4 days
42	**Wash Water Skid**	**6 days**
43	Detergent Tank	6 days
44	**Miscellaneous Piping**	**35 days**
45	Exhaust Frame Cooling Piping	10 days
46	CT Air Processing Piping	12 days
47	Inlet Air Heating Piping	13 days
48	**Generator**	**29 days**
49	Generators	29 days
50	**Combustion Turbine**	**147 days**
51	Inlet Heaters	10 days
52	Inlet ducts	15 days
53	Exhaust ducts	20 days
54	Combustion Turbines	35 days
55	Combustion Turbine Foundations	37 days
56	Enclosures	30 days
57	**CEMS**	**24 days**
58	CEMS Building	12 days
59	CEMS Building Foundation	12 days
60	**Stack**	**45 days**
61	Stacks	45 days
62	**Buildings**	**13 days**
63	Remove Administration Building	10 days
64	Remove Flammable Material Storage Building	3 days



South Harper Dismantlement

ID	Task Name	Duration
65	**Waste Water Tank**	**5 days**
66	Remove Waste Water Tank	5 days
67	**Site Prep**	**20 days**
68	Final Grading and Drainage	20 days
69	**Post Dismantlement Activities**	**30 days**
70	Post Dismantlement Activities	30 days



GREENWOOD

GREENWOOD STATION

The Greenwood Generating Station consists of four natural gas-fired and distillate-fired combustion turbine generator sets.

Combined, these combustion turbines have an SPP-accredited unit rating of 252.7 MW. Greenwood Units 1 and 2 were placed in service in 1975. Greenwood Unit 3 was placed in service in 1977. Greenwood Unit 4 was placed in service in 1979. Each unit is comprised of a GE Model MA7001B combustion turbine with a generator step-up transformer and auxiliary power transformer.

The following are the major systems and equipment that were included in the retirement and dismantlement of the Greenwood Generating Station.

1. Combustion turbine generator sets and auxiliaries.
2. Generation step-up and auxiliary transformers.
3. Outdoor switchgear.
4. Exhaust stacks.
5. Administration building.
6. Combustion turbine building.
7. Natural gas filtering skid.
8. Water treatment.
9. Service/Instrument air compressors.
10. Diesel generator.
11. Fuel oil storage and transfer equipment.

Greenwood Retirement

Owner Costs			
Pre-Retirement Activities		$43,834	
Retirement Activities		$225,697	
Post-Retirement Activities		$45,152	
Owner Direct Total			$314,683
Owner Internal Costs	5.00%		$15,734
Owner Contingency:	25.00%		$82,604
Greenwood Retirement Opinion of Probable Cost:			$413,021.44

Activities Required by Permit or Regulation

Greenwood Storage Tank	$157,111	
Greenwood Storage Tank (2)	$157,111	
Greenwood Storage Tank (3)	$157,111	
Activities Required by Permit or Regulation:		$471,333

Greenwood Retirement

ID	Task Name	Cost
1	**Greenwood Retirement**	**$314,683.28**
2	**Pre-Retirement Activities**	**$43,834.00**
3	Permitting Review	$23,466.00
4	Develop Detailed Retirement Plan	$20,368.00
5	**Retirement**	**$225,697.28**
6	**Project Management During Retirement**	**$105,866.64**
7	Project Management During Retirement	$105,866.64
8	**Retirement Activities**	**$119,830.64**
9	**Electrical**	**$44,664.00**
10	**Medium and Low Voltage Drawout Switchgear**	**$12,505.92**
11	De-energize all buses at the source.	$2,679.84
12	Open all circuit breakers.	$2,679.84
13	Rack all circuit breakers into the fully withdrawn, disconnected position.	$2,679.84
14	Verify that the closing/tripping springs are discharged.	$2,679.84
15	De-energize control power and auxiliary power circuits of each circuit breaker at the source and by opening control power circuit breakers or removing fuses in each breaker cubicle.	$1,786.56
16	**Motor Control Centers**	**$6,252.96**
17	De-energize all buses at the source.	$893.28
18	Open all circuit breakers and disconnect switches.	$1,786.56
19	Remove all fuses in control circuits.	$3,573.12
20	**Low-voltage Switchboards and Panelboards**	**$5,359.68**
21	De-energize all buses at the source.	$2,679.84
22	Open all circuit breakers and disconnect switches.	$2,679.84
23	**Oil-Filled Power Transformers**	**$9,826.08**
24	De-energize all buses at the source.	$2,679.84
25	Open all circuit breakers and disconnect switches.	$1,786.56
26	De-energize all buses at the source.	$2,679.84
27	Open all circuit breakers and disconnect switches.	$2,679.84
28	**Dry-type Power Transformers**	**$4,466.40**
29	De-energize all transformer primaries and verify that the secondary is de-energized.	$2,679.84
30	De-energize all low-voltage AC or DC power sources for space heaters, cooling equipment, controls, etc. at the source and open circuit breakers or remove fuses at transformer end.	$1,786.56
31	**Motors**	**$6,252.96**
32	De-energize all primary power at the source.	$1,786.56
33	De-energize all low-voltage power sources for space heaters or other auxiliary equipment at the source.	$1,786.56
34	Drain lube oil system (if applicable) and dispose of oil.	$2,679.84
35	**Administration Building**	**$7,473.92**

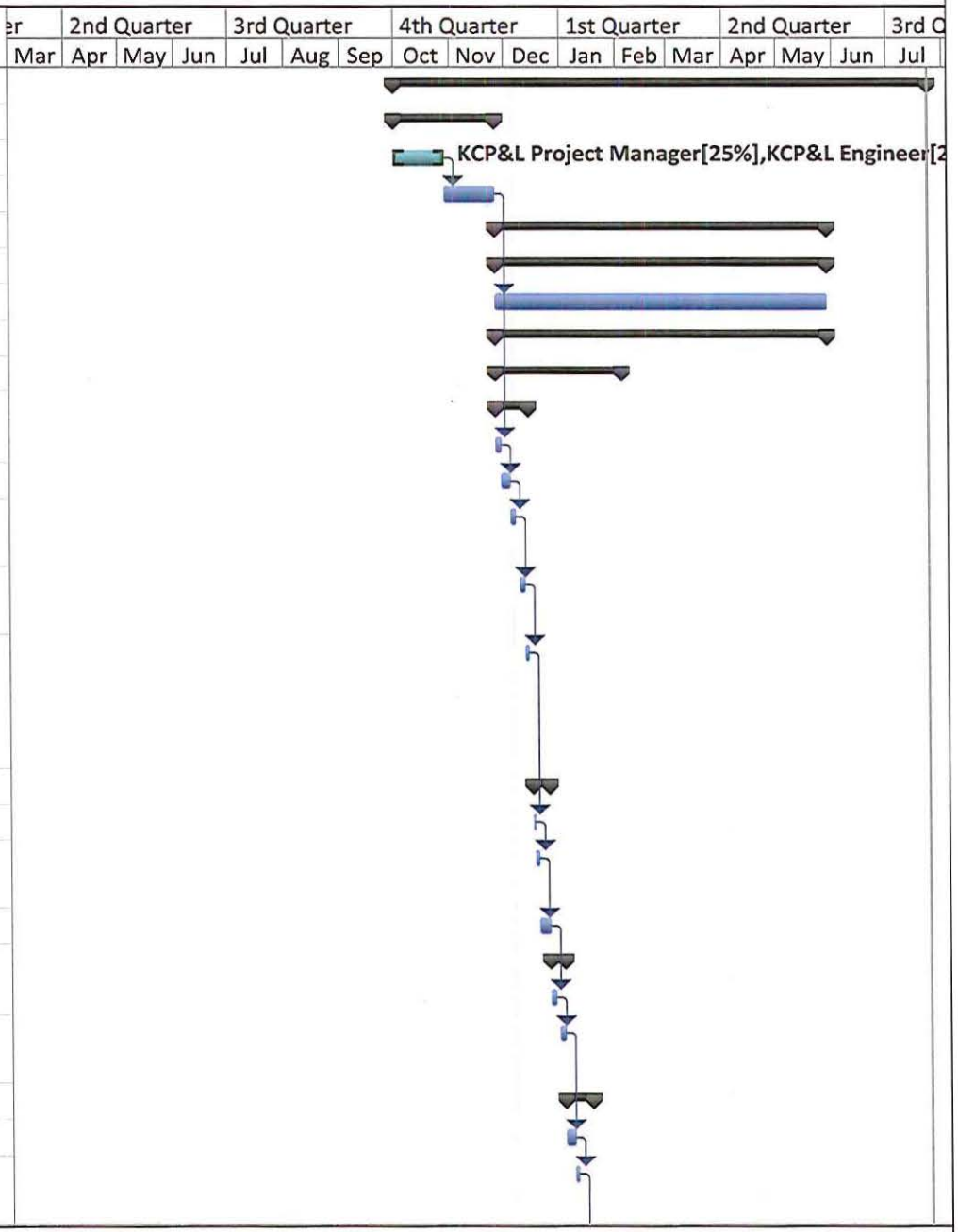
Greenwood Retirement		
ID	Task Name	Cost
36	Secure the Administration Building/Maintenance Shop	$7,473.92
37	**Combustion Turbine Buildings**	**$0.00**
38	Secure the Combustion Turbine Buildings	$0.00
39	**Fuel Gas System**	**$10,783.04**
40	Isolate Fuel Gas System	$3,907.44
41	Vent Fuel Gas Piping and Equipment	$2,528.16
42	Open and Vent Knock-Out Drum	$861.84
43	Drain, Open and Vent the Drain Tank	$861.84
44	Empty the Coalescing Filter	$1,761.92
45	Open and Vent Equipment on the CT Gas Valve Module	$861.84
46	**Lube Oil Cooling Water System**	**$7,756.56**
47	Open and Drain the Water Side of the Lube Oil Coolers	$5,171.04
48	Open and Vent the Coolers and Expansion Tank	$2,585.52
49	**Oily Drain Tank**	**$3,954.00**
50	Open and Pump Out the Oily Drain Tank	$3,954.00
51	**Wash Water Skid**	**$5,171.04**
52	Open and Drain the Detergent Tank	$1,723.68
53	Open and Drain the Demineralized Water Tank	$1,723.68
54	Empty the Demineralized Water Tank	$1,723.68
55	**Compressed Air**	**$3,447.36**
56	Empty Dessiccant Air Dryers and Vent	$1,723.68
57	Open and Vent the Air Reciever	$1,723.68
58	**Miscelleaneous Piping**	**$7,756.56**
59	Open and Vent the Exhaust Frame Cooling Piping	$2,585.52
60	Open and Vent the CT Air Processing Piping	$0.00
61	Open and Vent the Inlet Air Heating Piping	$2,585.52
62	Open and Vent the CT Air Processing Piping	$2,585.52
63	**Fire Protection Piping**	**$6,856.48**
64	Empty the CO2 Storage Tank	$5,132.80
65	Open and Vent the Fire Protection Piping	$1,723.68
66	**Lube Oil System**	**$11,587.04**
67	Empty and Remove from Site the Lubricating Oil	$6,416.00
68	Drain Lubricating Oil Piping	$3,447.36
69	Open and Vent Lubricating Oil Piping	$1,723.68
70	**Fuel Oil Storage and Unloading**	**$861.84**
71	Remove Fuel Oil from Fuel Oil Storage and Vent	$861.84
72	**Water Treatment**	**$7,756.56**
73	Drain All Tanks and Vessels	$1,723.68
74	Remove Resin from Vessels	$2,585.52
75	Remove Chemicals	$2,585.52
76	Open and Vent Vessels	$861.84
77	**Diesel Generator**	**$0.00**
78	Empty and Vent Diesel Generator F.O. Tank	$0.00
79	**Potable Water**	**$1,762.24**

Greenwood Retirement

ID	Task Name	Cost
80	Disconnect Potable Water at Property Boundary	$1,762.24
81	**Post Retirement Closure Activity**	**$45,152.00**
82	Post Retirement Closure Activity	$45,152.00

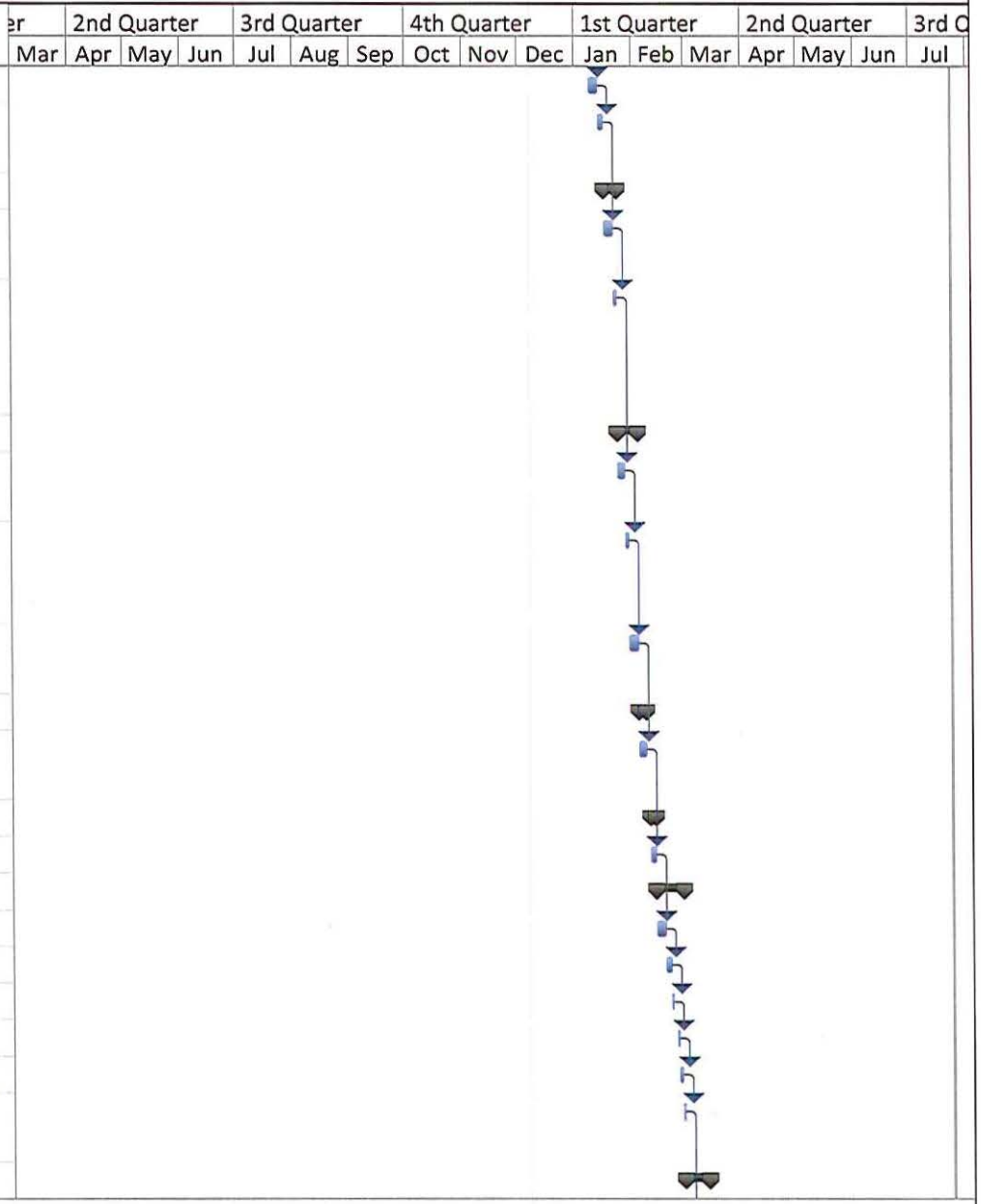
Greenwood Retirement

ID	Task Name	Duration
1	**Greenwood Retirement**	**212 days**
2	**Pre-Retirement Activities**	**40 days**
3	Permitting Review	20 days
4	Develop Detailed Retirement Plan	20 days
5	**Retirement**	**132 days**
6	**Project Management During Retirement**	**132 days**
7	Project Management During Retirement	132 days
8	**Retirement Activities**	**132 days**
9	**Electrical**	**50 days**
10	**Medium and Low Voltage Drawout Switchg**	**14 days**
11	De-energize all buses at the source.	3 days
12	Open all circuit breakers.	3 days
13	Rack all circuit breakers into the fully withdrawn, disconnected position.	3 days
14	Verify that the closing/tripping springs are discharged.	3 days
15	De-energize control power and auxiliary power circuits of each circuit breaker at the source and by opening control power circuit breakers or removing fuses in each	2 days
16	**Motor Control Centers**	**7 days**
17	De-energize all buses at the source.	1 day
18	Open all circuit breakers and disconnect switches.	2 days
19	Remove all fuses in control circuits.	4 days
20	**Low-voltage Switchboards and Panelboards**	**6 days**
21	De-energize all buses at the source.	3 days
22	Open all circuit breakers and disconnect switches.	3 days
23	**Oil-Filled Power Transformers**	**11 days**
24	De-energize all buses at the source.	3 days
25	Open all circuit breakers and disconnect switches.	2 days



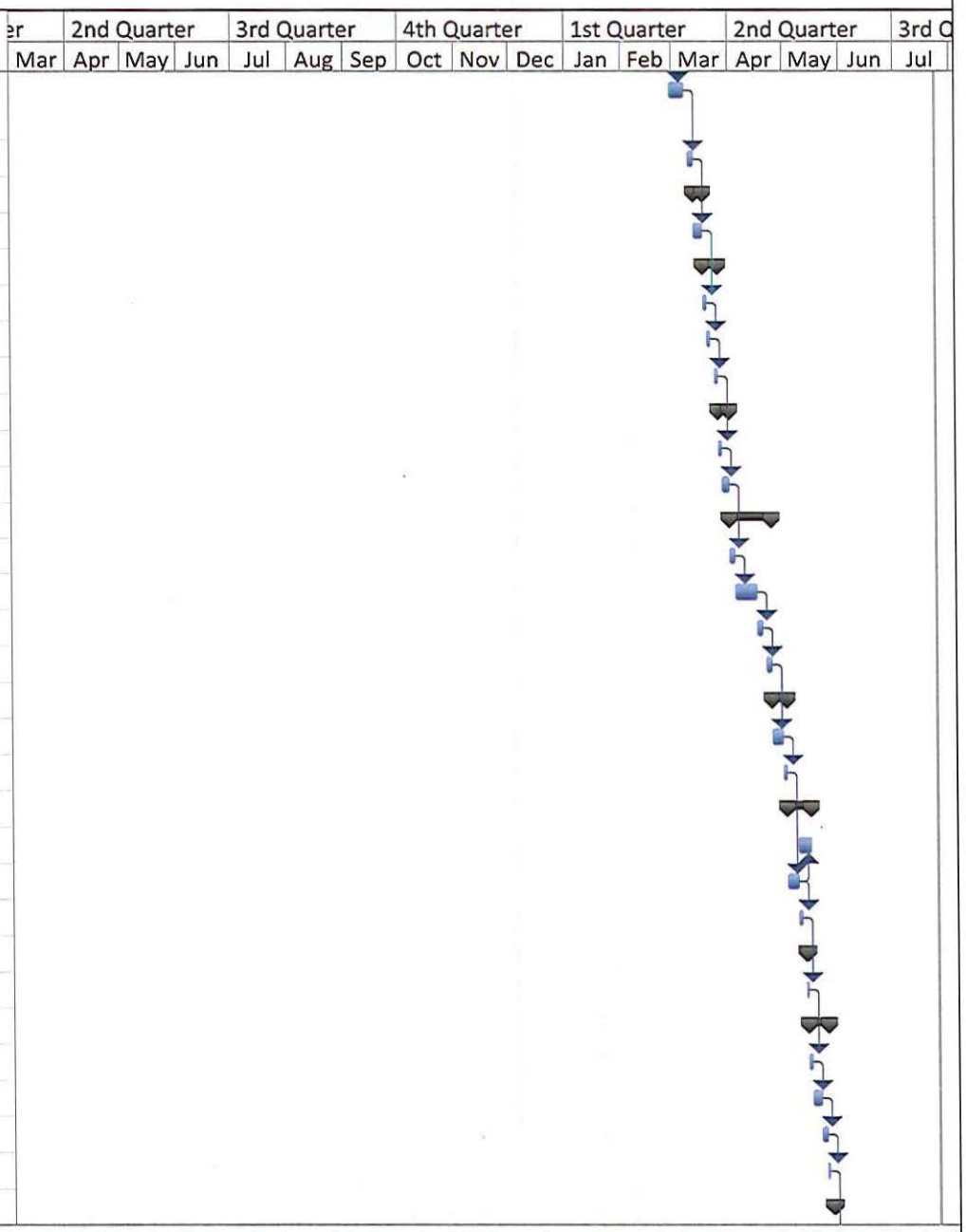
Greenwood Retirement

ID	Task Name	Duration
26	De-energize all buses at the source.	3 days
27	Open all circuit breakers and disconnect switches.	3 days
28	**Dry-type Power Transformers**	**5 days**
29	De-energize all transformer primaries and verify that the secondary is de-energized.	3 days
30	De-energize all low-voltage AC or DC power sources for space heaters, cooling equipment, controls, etc. at the source and open circuit breakers or remove fuses	2 days
31	**Motors**	**7 days**
32	De-energize all primary power at the source.	2 days
33	De-energize all low-voltage power sources for space heaters or other auxiliary equipment at the source.	2 days
34	Drain lube oil system (if applicable) and dispose of oil.	3 days
35	**Administration Building**	**4 days**
36	Secure the Administration Building/Maintenance Shop	4 days
37	**Combustion Turbine Buildings**	**3 days**
38	Secure the Combustion Turbine Buildings	3 days
39	**Fuel Gas System**	**11 days**
40	Isolate Fuel Gas System	3 days
41	Vent Fuel Gas Piping and Equipment	3 days
42	Open and Vent Knock-Out Drum	1 day
43	Drain, Open and Vent the Drain Tank	1 day
44	Empty the Coalescing Filter	2 days
45	Open and Vent Equipment on the CT Gas Valve Module	1 day
46	**Lube Oil Cooling Water System**	**9 days**



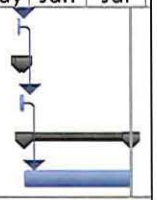
Greenwood Retirement

ID	Task Name	Duration
47	Open and Drain the Water Side of the Lube Oil Coolers	6 days
48	Open and Vent the Coolers and Expansion Ta	3 days
49	**Oily Drain Tank**	**3 days**
50	Open and Pump Out the Oily Drain Tank	3 days
51	**Wash Water Skid**	**6 days**
52	Open and Drain the Detergent Tank	2 days
53	Open and Drain the Demineralized Water Tar	2 days
54	Empty the Demineralized Water Tank	2 days
55	**Compressed Air**	**4 days**
56	Empty Dessiccant Air Dryers and Vent	2 days
57	Open and Vent the Air Reciever	2 days
58	**Miscelleaneous Piping**	**17 days**
59	Open and Vent the Exhaust Frame Cooling Pi	3 days
60	Open and Vent the CT Air Processing Piping	8 days
61	Open and Vent the Inlet Air Heating Piping	3 days
62	Open and Vent the CT Air Processing Piping	3 days
63	**Fire Protection Piping**	**6 days**
64	Empty the CO2 Storage Tank	4 days
65	Open and Vent the Fire Protection Piping	2 days
66	**Lube Oil System**	**9 days**
67	Empty and Remove from Site the Lubricating	5 days
68	Drain Lubricating Oil Piping	4 days
69	Open and Vent Lubricating Oil Piping	2 days
70	**Fuel Oil Storage and Unloading**	**1 day**
71	Remove Fuel Oil from Fuel Oil Storage and V	1 day
72	**Water Treatment**	**9 days**
73	Drain All Tanks and Vessels	2 days
74	Remove Resin from Vessels	3 days
75	Remove Chemicals	3 days
76	Open and Vent Vessels	1 day
77	**Diesel Generator**	**1 day**



Greenwood Retirement

ID	Task Name	Duration
78	Empty and Vent Diesel Generator F.O. Tank	1 day
79	**Potable Water**	**2 days**
80	Disconnect Potable Water at Property Bound	2 days
81	**Post Retirement Closure Activity**	**40 days**
82	Post Retirement Closure Activity	40 days



Greenwood Dismantlement

Owner Costs				
Pre-Dismantlement Activities			$892,760	
Overhead During Dismantlement			$1,477,766	
Post-Dismantlement Activities			$49,140	
Owner Costs Total*				$2,419,666
Demolition General Contractor (DGC) Costs				
Site Management			$805,541	
Equipment Rental			$1,371,616	
Consummables			$1,368,432	
Scrap Crew(s)			$360,262	
Dismantlement			$1,117,115	
Contractor Direct Cost*		$5,022,966		
Contractor Allowances				
DGC Insurance	2.00%		$100,459	
Contingency/Profit	15.00%		$768,514	
Performance Bond	2.00%		$117,838.78	
Contractor Costs Total:				$6,009,778
Total:				$8,429,444
Owner Internal Costs:	5.00%			$421,472
Owner Contingency:	25.00%			$2,212,729
Greenwood Dismantlement Opinion of Probable Cost:				$11,063,645

*Owner Costs Total + Contractor Direct Costs = Manpower Loaded Schedule Total w/o Contractor Allowances
= $7,442,632

Greenwood Dismantlement

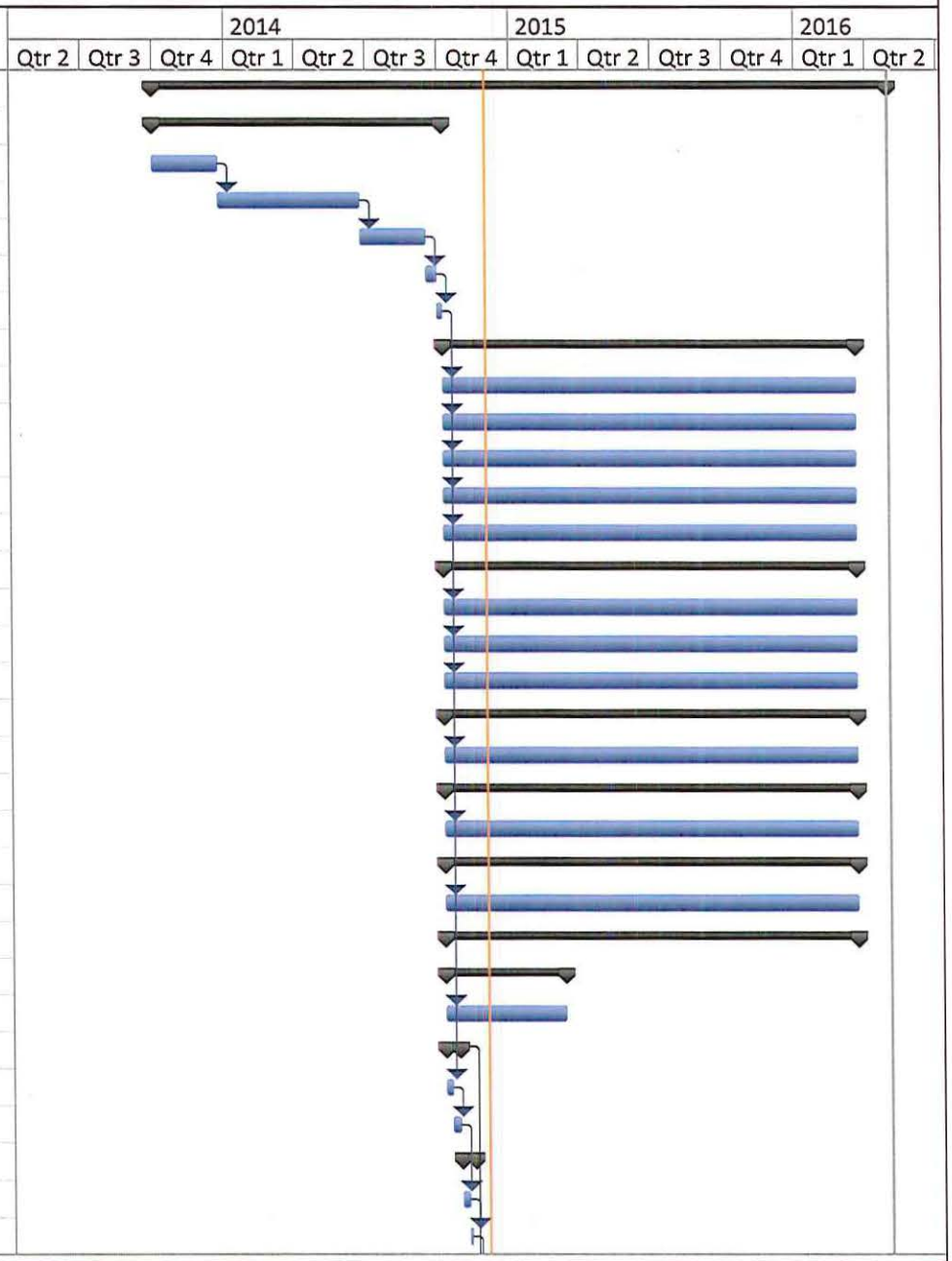
ID	Task Name	Cost
1	**Greenwood Dismantlement**	**$7,442,635.44**
2	**Pre-Demolition Activities**	**$892,760.32**
3	Detailed Planning & Hire Owner's Engineer	$104,441.28
4	Detailed Site Characterization Study	$610,335.44
5	Hire Demolition general Contractor	$167,184.00
6	KCP&L Prepares Unit for Dismantlement	$10,799.60
7	Demolition Contractor Mobilizes on Site	$0.00
8	**KCP&L Overhead during Dismantlement**	**$1,477,766.48**
9	KCP&L Project Manager	$234,828.40
10	KCP&L Administrative Support	$86,836.48
11	KCP&L Engineer	$385,973.60
12	Owners Engineer Project Manager	$115,216.00
13	Owners Engineer - Engineer	$654,912.00
14	**Demolition Contractor Overhead during Dismantlement**	**$805,541.76**
15	Demolition Contractor Project Manager	$227,915.44
16	Demolition Contractor Safety Manager	$202,931.76
17	Demolition Contractor Superintendent	$374,694.56
18	**Demolition Contractor Equipment Rental Cost**	**$1,371,616.16**
19	Equipment Rental	$1,371,616.16
20	**Demolition Contractor Consumables**	**$1,368,432.56**
21	Consumables	$1,368,432.56
22	**Scrap Crews**	**$360,262.24**
23	Crew to Handle Scrap Material(s)	$360,262.24
24	**Dismantlement**	**$1,117,115.92**
25	**Electrical**	**$197,049.60**
26	Electrical Demolition of Equipment	$197,049.60
27	**Fuel Gas System**	**$17,932.24**
28	Remove all above grade fuel gas piping.	$3,601.36
29	Gas Filter Skid	$14,330.88
30	**Fueil Oil System**	**$17,913.60**
31	Remove above grade fuel oil piping	$12,539.52
32	Remove fuel oil forwarding equipment	$5,374.08
33	Remove fuel oil forwarding building	$0.00
34	**Demineralizer**	**$17,913.60**
35	Remove demineralizer vessels	$3,582.72
36	Remove acid and caustic tanks	$7,165.44
37	Remove hot water tank	$3,582.72
38	Remove misc. demineralizer piping.	$3,582.72
39	**Lube Oil System**	**$53,740.80**
40	Lube Oil Piping	$14,330.88
41	Lube Oil Pumps	$17,913.60
42	Lube Oil Tanks	$21,496.32
43	**Compressed Air System**	**$21,496.32**
44	Compressed Air Piping	$10,748.16

Greenwood Dismantlement

ID	Task Name	Cost
45	Compressors	$5,374.08
46	Air Receiver	$3,582.72
47	Dryer	$1,791.36
48	**Fire Protection**	**$26,870.40**
49	Fire Protection Piping	$19,704.96
50	CO2 Storage Tank	$7,165.44
51	**Wash Water Skid**	**$10,748.16**
52	Detergent Tank	$10,748.16
53	**Miscellaneous Piping**	**$62,697.60**
54	Exhaust Frame Cooling Piping	$17,913.60
55	CT Air Processing Piping	$21,496.32
56	Inlet Air Heating Piping	$23,287.68
57	**Generator**	**$51,949.44**
58	Generators	$51,949.44
59	**Combustion Turbine**	**$263,329.92**
60	Inlet Heaters	$17,913.60
61	Inlet ducts	$26,870.40
62	Exhaust ducts	$35,827.20
63	Combustion Turbines	$62,697.60
64	Combustion Turbine Foundations	$66,280.32
65	Enclosures	$53,740.80
66	**Diesel Generator**	**$3,582.72**
67	Remove diesel generator	$3,582.72
68	**CEMS**	**$42,992.64**
69	CEMS Building	$21,496.32
70	CEMS Building Foundation	$21,496.32
71	**Stack**	**$80,611.20**
72	Stacks	$80,611.20
73	**Buildings**	**$23,287.68**
74	Remove Administration/Maintenance Building	$17,913.60
75	Remove CT Buildings including gantry crane	$5,374.08
76	**Site Prep**	**$225,000.00**
77	Final Grading and Drainage	$225,000.00
78	**Post Dismantlement Activities**	**$49,140.00**
79	Post Dismantlement Activities	$49,140.00

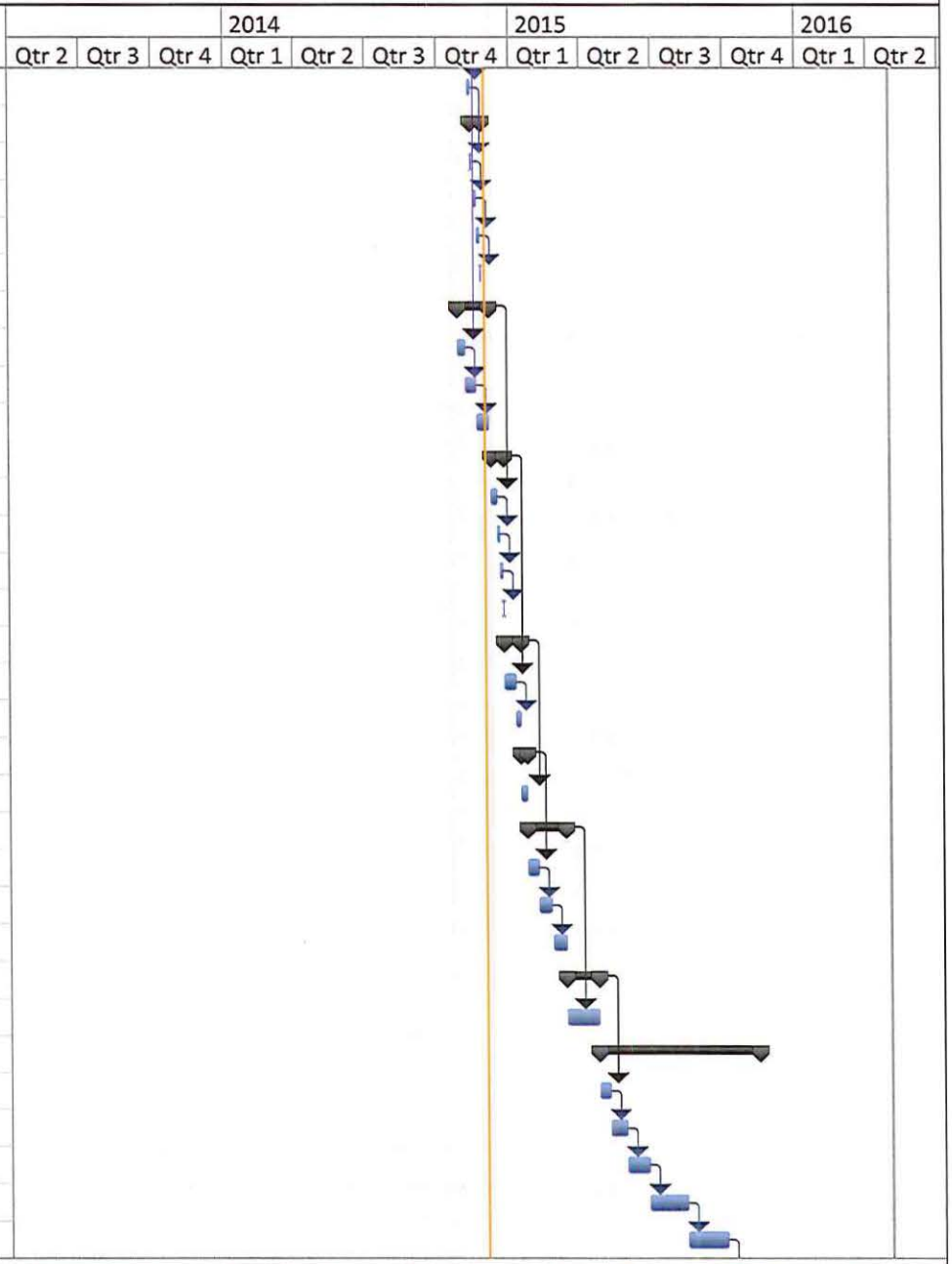
Greenwood Dismantlement

ID	Task Name	Duration
1	**Greenwood Dismantlement**	**674 days**
2	**Pre-Demolition Activities**	**265 days**
3	Detailed Planning & Hire Owner's Engineer	3 mons
4	Detailed Site Characterization Study	130 days
5	Hire Demolition general Contractor	3 mons
6	KCP&L Prepares Unit for Dismantlement	2 wks
7	Demolition Contractor Mobilizes on Site	5 days
8	**KCP&L Overhead during Dismantlement**	**379 days**
9	KCP&L Project Manager	379 days
10	KCP&L Administrative Support	379 days
11	KCP&L Engineer	379 days
12	Owners Engineer Project Manager	379 days
13	Owners Engineer - Engineer	379 days
14	**Demolition Contractor Overhead during Dismantlemer**	**379 days**
15	Demolition Contractor Project Manager	379 days
16	Demolition Contractor Safety Manager	379 days
17	Demolition Contractor Superintendent	379 days
18	**Demolition Contractor Equipment Rental Cost**	**379 days**
19	Equipment Rental	379 days
20	**Demolition Contractor Consumables**	**379 days**
21	Consumables	379 days
22	**Scrap Crews**	**379 days**
23	Crew to Handle Scrap Material(s)	379 days
24	**Dismantlement**	**379 days**
25	**Electrical**	**110 days**
26	Electrical Demolition of Equipment	110 days
27	**Fuel Gas System**	**14 days**
28	Remove all above grade fuel gas piping.	6 days
29	Gas Filter Skid	8 days
30	**Fueil Oil System**	**13 days**
31	Remove above grade fuel oil piping	7 days
32	Remove fuel oil forwarding equipment	3 days



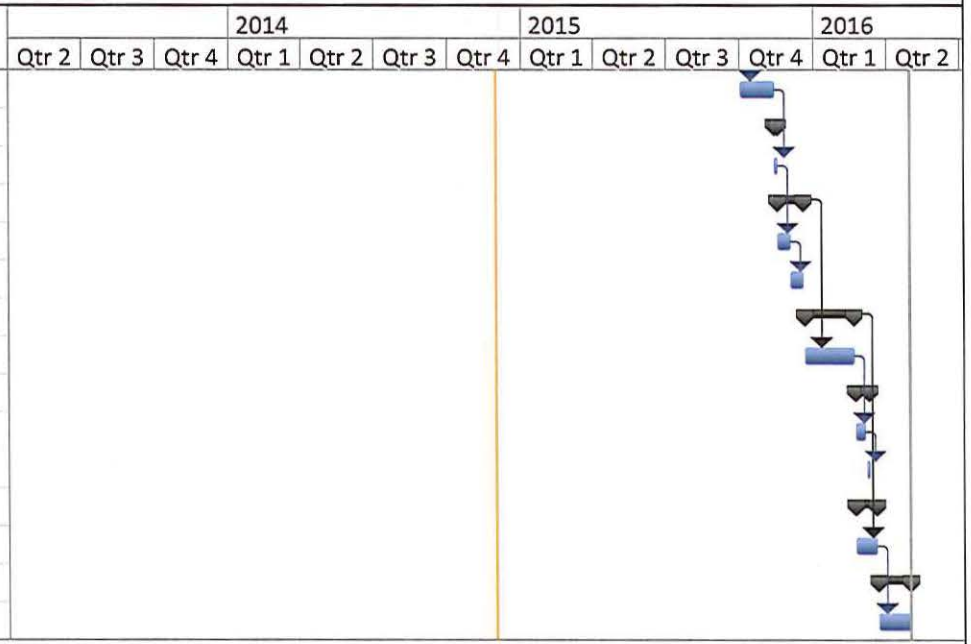
Greenwood Dismantlement

ID	Task Name	Duration
33	Remove fuel oil forwarding building	3 days
34	**Demineralizer**	**10 days**
35	Remove demineralizer vessels	2 days
36	Remove acid and caustic tanks	4 days
37	Remove hot water tank	2 days
38	Remove misc. demineralizer piping.	2 days
39	**Lube Oil System**	**30 days**
40	Lube Oil Piping	8 days
41	Lube Oil Pumps	10 days
42	Lube Oil Tanks	12 days
43	**Compressed Air System**	**12 days**
44	Compressed Air Piping	6 days
45	Compressors	3 days
46	Air Receiver	2 days
47	Dryer	1 day
48	**Fire Protection**	**15 days**
49	Fire Protection Piping	11 days
50	CO2 Storage Tank	4 days
51	**Wash Water Skid**	**6 days**
52	Detergent Tank	6 days
53	**Miscellaneous Piping**	**35 days**
54	Exhaust Frame Cooling Piping	10 days
55	CT Air Processing Piping	12 days
56	Inlet Air Heating Piping	13 days
57	**Generator**	**29 days**
58	Generators	29 days
59	**Combustion Turbine**	**147 days**
60	Inlet Heaters	10 days
61	Inlet ducts	15 days
62	Exhaust ducts	20 days
63	Combustion Turbines	35 days
64	Combustion Turbine Foundations	37 days



Greenwood Dismantlement

ID	Task Name	Duration
65	Enclosures	30 days
66	**Diesel Generator**	**2 days**
67	Remove diesel generator	2 days
68	**CEMS**	**24 days**
69	CEMS Building	12 days
70	CEMS Building Foundation	12 days
71	**Stack**	**45 days**
72	Stacks	45 days
73	**Buildings**	**13 days**
74	Remove Administration/Maintenance Building	10 days
75	Remove CT Buildings including gantry crane	3 days
76	**Site Prep**	**20 days**
77	Final Grading and Drainage	20 days
78	**Post Dismantlement Activities**	**30 days**
79	Post Dismantlement Activities	30 days



CROSSROADS

CROSSROADS STATION

The Crossroads Generating Station consists of four natural gas-fired combustion turbine generator sets.

Combined, these combustion turbines have an SPP-accredited unit rating of 276.8 MW. Crossroads was placed into service in 2002. Each unit is comprised of a GE Model MS7001EA combustion turbine with a generator step-up transformer and auxiliary power transformer.

The following are the major systems and equipment that were included in the retirement and dismantlement of the Crossroads Generating Station.

1. Combustion turbine generator sets and auxiliaries.
2. Generation step-up and auxiliary transformers.
3. Outdoor switchgear.
4. Exhaust stacks.
5. Maintenance building.
6. Natural gas filtering skid.
7. Service/Instrument air compressors.

Crossroads Retirement

Owner Costs			
Pre-Retirement Activities		$43,834	
Retirement Activities		$215,997	
Post-Retirement Activities		$45,162	
Owner Direct Total			$304,993
Owner Internal Costs	5.00%		$15,250
Owner Contingency:	25.00%		$80,061
Crossroads Retirement Opinion of Probable Cost:			$400,303.31

Crossroads Retirement

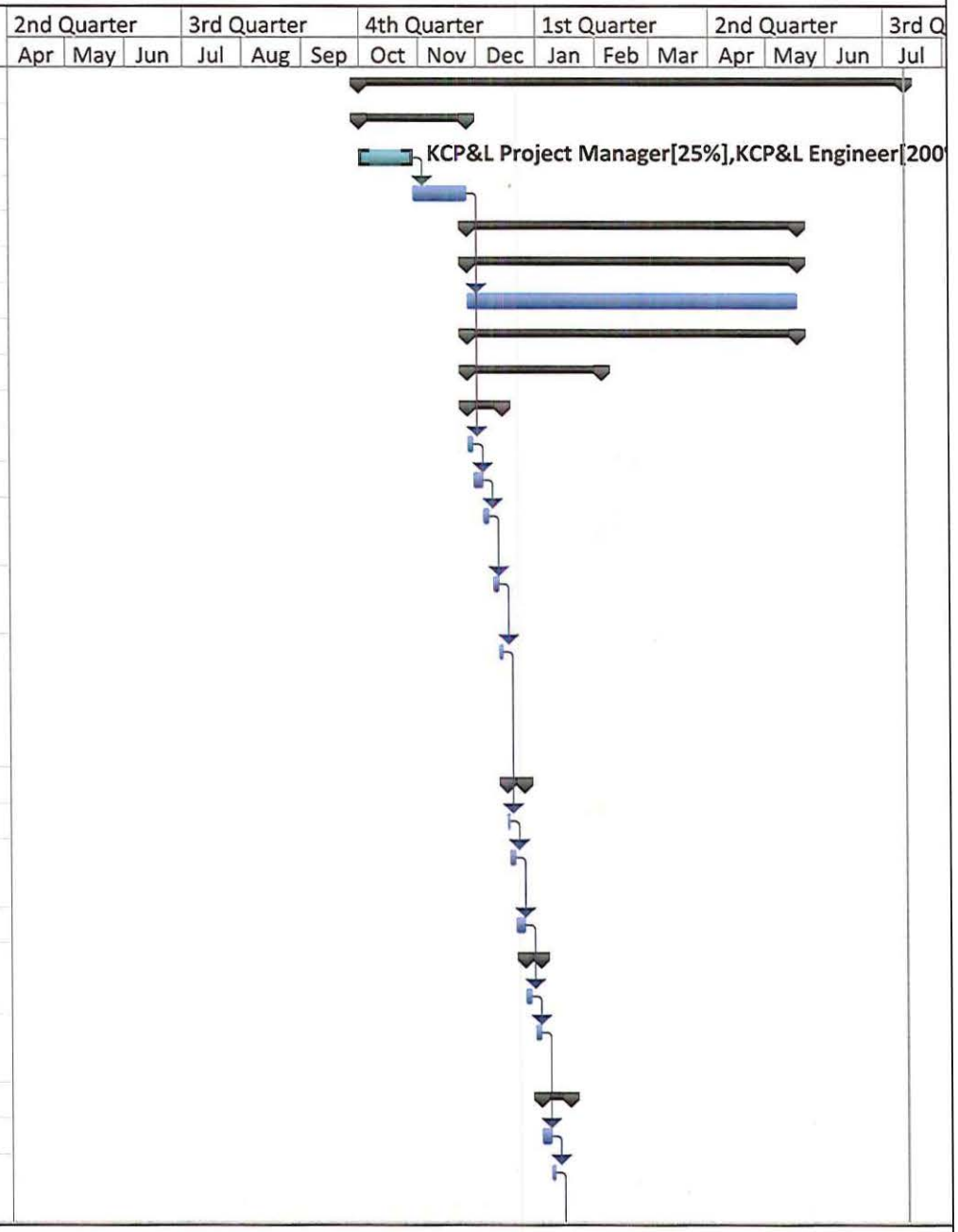
ID	Task Name	Cost
1	**Crossroads Retirement**	**$304,983.84**
2	**Pre-Retirement Activities**	**$43,834.00**
3	Permitting Review	$23,466.00
4	Develop Detailed Retirement Plan	$20,368.00
5	**Retirement**	**$215,997.84**
6	**Project Management During Retirement**	**$99,450.48**
7	Project Management During Retirement	$99,450.48
8	**Retirement Activities**	**$116,547.36**
9	**Electrical**	**$44,664.00**
10	**Medium and Low Voltage Drawout Switchgear**	**$12,505.92**
11	De-energize all buses at the source.	$2,679.84
12	Open all circuit breakers.	$2,679.84
13	Rack all circuit breakers into the fully withdrawn, disconnected position.	$2,679.84
14	Verify that the closing/tripping springs are discharged.	$2,679.84
15	De-energize control power and auxiliary power circuits of each circuit breaker at the source and by opening control power circuit breakers or removing fuses in each breaker cubicle.	$1,786.56
16	**Motor Control Centers**	**$6,252.96**
17	De-energize all buses at the source.	$893.28
18	Open all circuit breakers and disconnect switches.	$2,679.84
19	Remove all fuses in control circuits.	$2,679.84
20	**Low-voltage Switchboards and Panelboards**	**$5,359.68**
21	De-energize all buses at the source.	$2,679.84
22	Open all circuit breakers and disconnect switches.	$2,679.84
23	**Oil-Filled Power Transformers**	**$9,826.08**
24	De-energize all buses at the source.	$2,679.84
25	Open all circuit breakers and disconnect switches.	$1,786.56
26	De-energize all buses at the source.	$2,679.84
27	Open all circuit breakers and disconnect switches.	$2,679.84
28	**Dry-type Power Transformers**	**$4,466.40**
29	De-energize all transformer primaries and verify that the secondary is de-energized.	$2,679.84
30	De-energize all low-voltage AC or DC power sources for space heaters, cooling equipment, controls, etc. at the source and open circuit breakers or remove fuses at transformer end.	$1,786.56
31	**Motors**	**$6,252.96**
32	De-energize all primary power at the source.	$1,786.56
33	De-energize all low-voltage power sources for space heaters or other auxiliary equipment at the source.	$1,786.56
34	Drain lube oil system (if applicable) and dispose of oil.	$2,679.84
35	**Maintenance Building**	**$9,342.40**

Crossroads Retirement

ID	Task Name	Cost
36	Secure the Maintenance Building	$9,342.40
37	**Fuel Gas System**	**$10,783.04**
38	Isolate Fuel Gas System	$3,907.44
39	Vent Fuel Gas Piping and Equipment	$2,528.16
40	Open and Vent Knock-Out Drum	$861.84
41	Drain, Open and Vent the Drain Tank	$861.84
42	Empty the Coalescing Filter	$1,761.92
43	Open and Vent Equipment on the CT Gas Valve Module	$861.84
44	**Lube Oil Cooling Water System**	**$7,756.56**
45	Open and Drain the Water Side of the Lube Oil Coolers	$5,171.04
46	Open and Vent the Coolers and Expansion Tank	$2,585.52
47	**Oily Drain Tank**	**$3,954.00**
48	Open and Pump Out the Oily Drain Tank	$3,954.00
49	**Wash Water Skid**	**$5,171.04**
50	Open and Drain the Detergent Tank	$1,723.68
51	Open and Drain the Demineralized Water Tank	$1,723.68
52	Empty the Demineralized Water Tank	$1,723.68
53	**Compressed Air**	**$3,447.36**
54	Empty Dessiccant Air Dryers and Vent	$1,723.68
55	Open and Vent the Air Reciever	$1,723.68
56	**Miscelleaneous Piping**	**$10,342.08**
57	Open and Vent the Exhaust Frame Cooling Piping	$3,447.36
58	Open and Vent the CT Air Processing Piping	$0.00
59	Open and Vent the Inlet Air Heating Piping	$3,447.36
60	Open and Vent the CT Air Processing Piping	$3,447.36
61	**Fire Protection Piping**	**$6,856.48**
62	Empty the CO2 Storage Tank	$5,132.80
63	Open and Vent the Fire Protection Piping	$1,723.68
64	**Lube Oil System**	**$11,587.04**
65	Empty and Remove from Site the Lubricating Oil	$6,416.00
66	Drain Lubricating Oil Piping	$3,447.36
67	Open and Vent Lubricating Oil Piping	$1,723.68
68	**Potable Water**	**$2,643.36**
69	Disconnect Potable Water at Property Boundary	$2,643.36
70	**Post Retirement Closure Activity**	**$45,152.00**
71	Post Retirement Closure Activity	$45,152.00

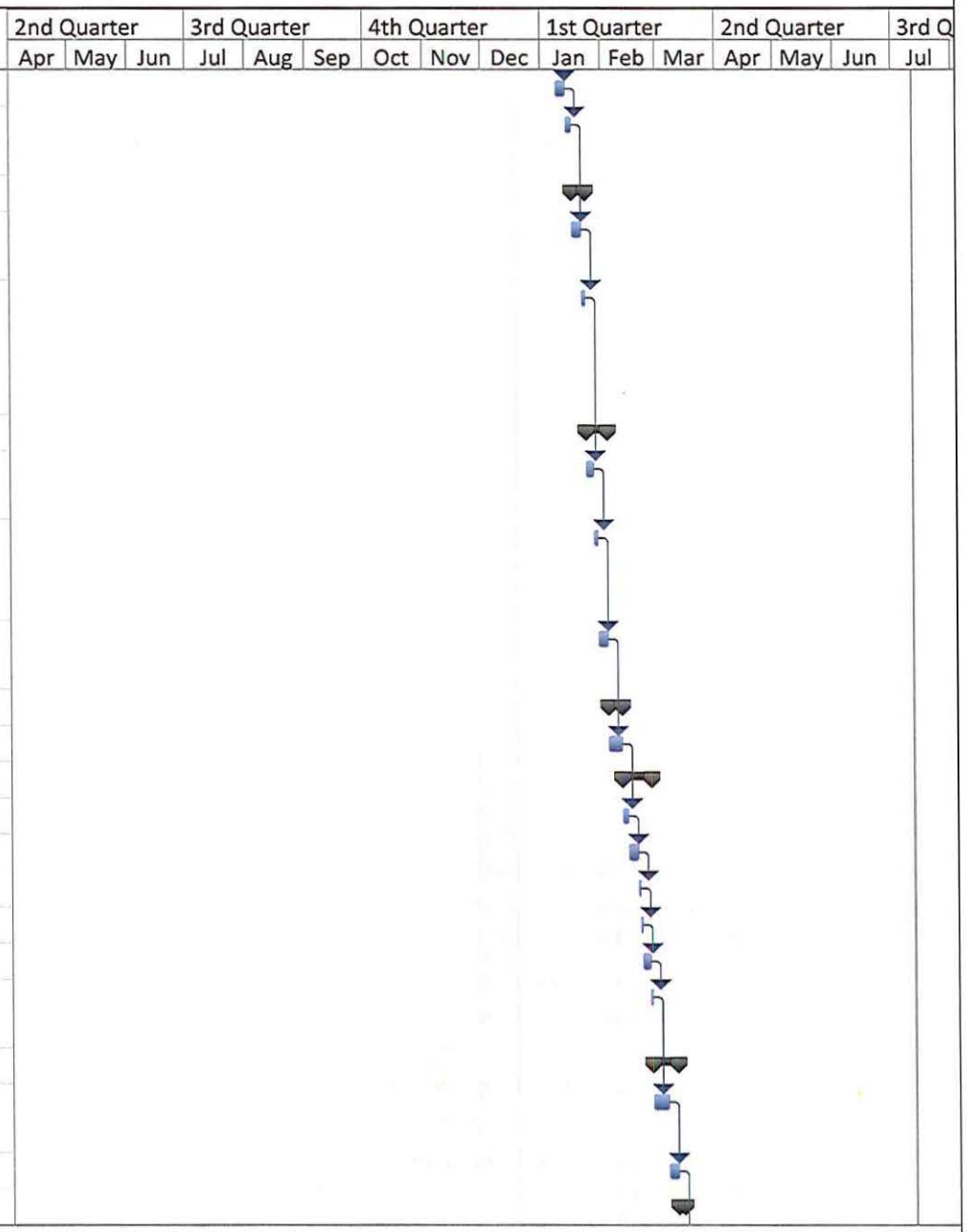
Crossroads Retirement

ID	Task Name	Duration
1	**Crossroads Retirement**	**204 days**
2	**Pre-Retirement Activities**	**40 days**
3	Permitting Review	20 days
4	Develop Detailed Retirement Plan	20 days
5	**Retirement**	**124 days**
6	**Project Management During Retirement**	**124 days**
7	Project Management During Retirement	124 days
8	**Retirement Activities**	**124 days**
9	**Electrical**	**50 days**
10	**Medium and Low Voltage Drawout Switchg**	**14 days**
11	De-energize all buses at the source.	3 days
12	Open all circuit breakers.	3 days
13	Rack all circuit breakers into the fully withdrawn, disconnected position.	3 days
14	Verify that the closing/tripping springs are discharged.	3 days
15	De-energize control power and auxiliary power circuits of each circuit breaker at the source and by opening control power circuit breakers or removing fuses in each	2 days
16	**Motor Control Centers**	**7 days**
17	De-energize all buses at the source.	1 day
18	Open all circuit breakers and disconnect switches.	3 days
19	Remove all fuses in control circuits.	3 days
20	**Low-voltage Switchboards and Panelboards**	**6 days**
21	De-energize all buses at the source.	3 days
22	Open all circuit breakers and disconnect switches.	3 days
23	**Oil-Filled Power Transformers**	**11 days**
24	De-energize all buses at the source.	3 days
25	Open all circuit breakers and disconnect switches.	2 days



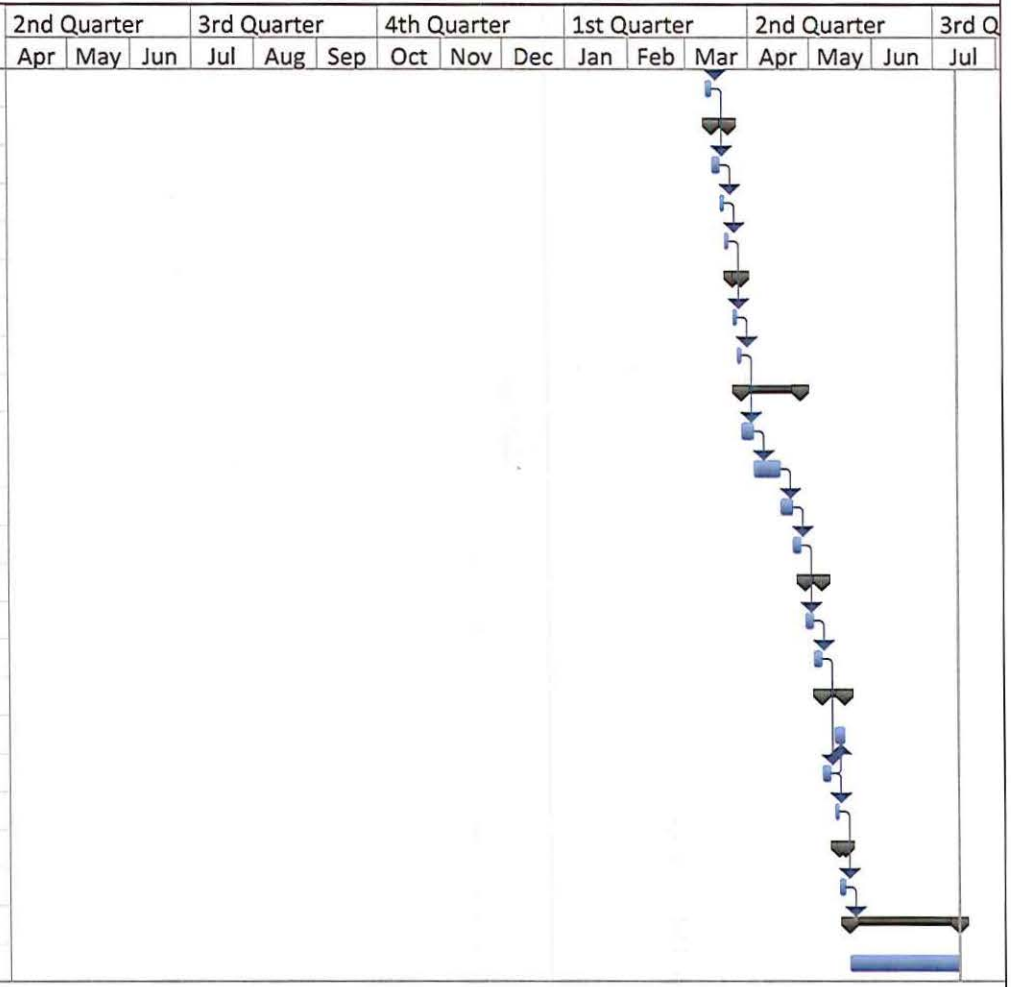
Crossroads Retirement

ID	Task Name	Duration
26	De-energize all buses at the source.	3 days
27	Open all circuit breakers and disconnect switches.	3 days
28	**Dry-type Power Transformers**	**5 days**
29	De-energize all transformer primaries and verify that the secondary is de-energized.	3 days
30	De-energize all low-voltage AC or DC power sources for space heaters, cooling equipment, controls, etc. at the source and open circuit breakers or remove fuses	2 days
31	**Motors**	**7 days**
32	De-energize all primary power at the source.	2 days
33	De-energize all low-voltage power sources for space heaters or other auxiliary equipment at the source.	2 days
34	Drain lube oil system (if applicable) and dispose of oil.	3 days
35	**Maintenance Building**	**5 days**
36	Secure the Maintenance Building	5 days
37	**Fuel Gas System**	**11 days**
38	Isolate Fuel Gas System	3 days
39	Vent Fuel Gas Piping and Equipment	3 days
40	Open and Vent Knock-Out Drum	1 day
41	Drain, Open and Vent the Drain Tank	1 day
42	Empty the Coalescing Filter	2 days
43	Open and Vent Equipment on the CT Gas Valve Module	1 day
44	**Lube Oil Cooling Water System**	**9 days**
45	Open and Drain the Water Side of the Lube Oil Coolers	6 days
46	Open and Vent the Coolers and Expansion Ta	3 days
47	**Oily Drain Tank**	**3 days**



Crossroads Retirement

ID	Task Name	Duration
48	Open and Pump Out the Oily Drain Tank	3 days
49	**Wash Water Skid**	**6 days**
50	Open and Drain the Detergent Tank	2 days
51	Open and Drain the Demineralized Water Tar	2 days
52	Empty the Demineralized Water Tank	2 days
53	**Compressed Air**	**4 days**
54	Empty Dessiccant Air Dryers and Vent	2 days
55	Open and Vent the Air Reciever	2 days
56	**Miscelleaneous Piping**	**21 days**
57	Open and Vent the Exhaust Frame Cooling Pi	4 days
58	Open and Vent the CT Air Processing Piping	9 days
59	Open and Vent the Inlet Air Heating Piping	4 days
60	Open and Vent the CT Air Processing Piping	4 days
61	**Fire Protection Piping**	**6 days**
62	Empty the CO2 Storage Tank	4 days
63	Open and Vent the Fire Protection Piping	2 days
64	**Lube Oil System**	**9 days**
65	Empty and Remove from Site the Lubricating	5 days
66	Drain Lubricating Oil Piping	4 days
67	Open and Vent Lubricating Oil Piping	2 days
68	**Potable Water**	**3 days**
69	Disconnect Potable Water at Property Bound	3 days
70	**Post Retirement Closure Activity**	**40 days**
71	Post Retirement Closure Activity	40 days



Crossroads Dismantlement

Owner Costs				
Pre-Dismantlement Activities			$887,360	
Overhead During Dismantlement			$1,551,849	
Post-Dismantlement Activities			$49,140	
Owner Costs Total*				$2,488,349
Demolition General Contractor (DGC) Costs				
Site Management			$845,925	
Equipment Rental			$1,440,377	
Consummables			$1,437,034	
Scrap Crew(s)			$378,322	
Dismantlement			$982,145	
Contractor Direct Cost*		$5,083,803		
Contractor Allowances				
DGC Insurance	2.00%		$101,676	
Contingency/Profit	15.00%		$777,822	
Performance Bond	2.00%		$119,266.02	
Contractor Costs Total:				$6,082,567

Total:		$8,570,916
Owner Internal Costs:	5.00%	$428,546
Owner Contingency:	25.00%	$2,249,865
Crossroads Dismantlement Opinion of Probable Cost:		$11,249,327

*Owner Costs Total + Contractor Direct Costs = Manpower Loaded Schedule Total w/o Contractor Allowances
= $7,572,152

Crossroads Dismantlement

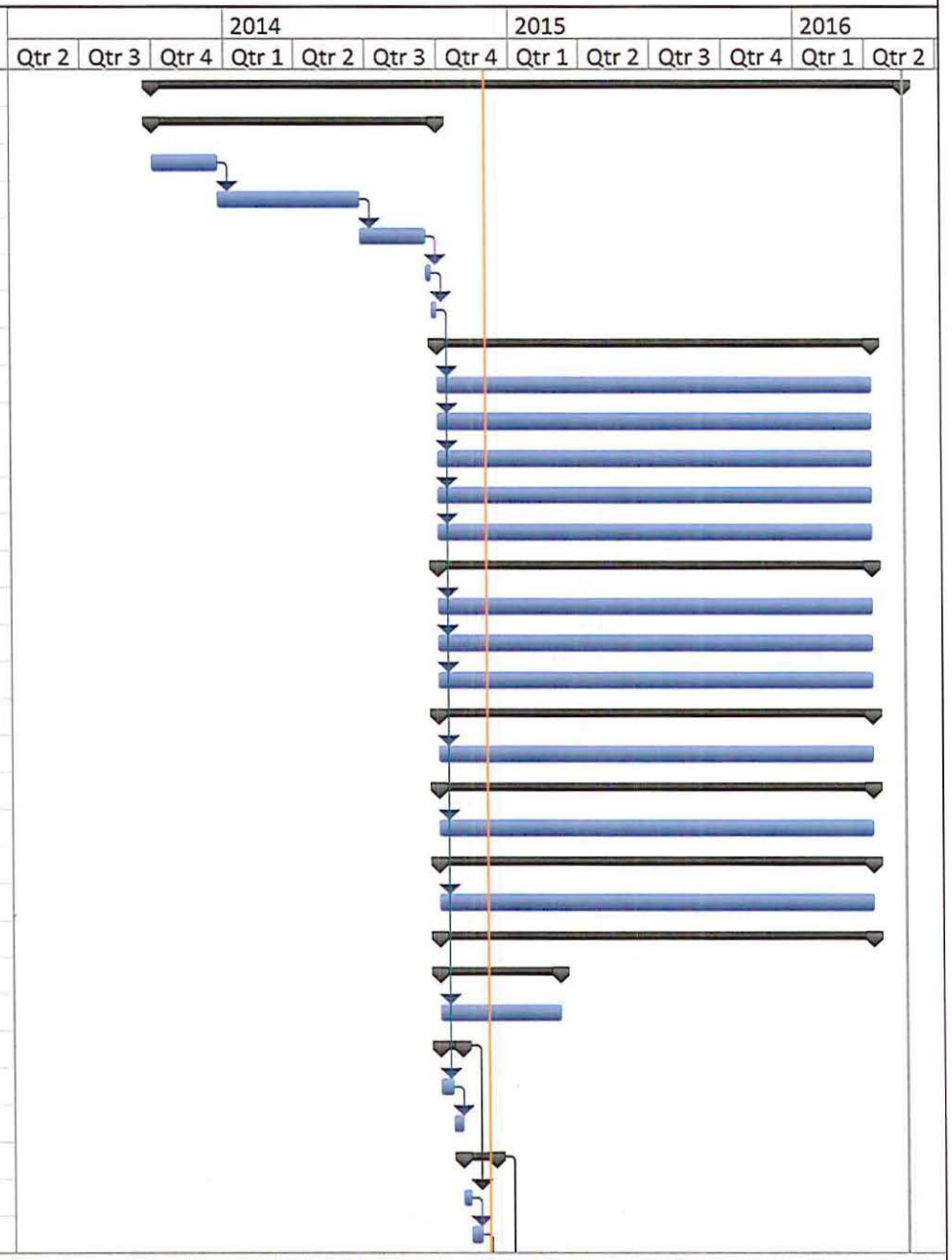
ID	Task Name	Cost
1	**Crossroads Dismantlement**	**$7,572,156.16**
2	**Pre-Demolition Activities**	**$887,360.52**
3	Detailed Planning & Hire Owner's Engineer	$104,441.28
4	Detailed Site Characterization Study	$610,335.44
5	Hire Demolition general Contractor	$167,184.00
6	KCP&L Prepares Unit for Dismantlement	$5,399.80
7	Demolition Contractor Mobilizes on Site	$0.00
8	**KCP&L Overhead during Dismantlement**	**$1,551,849.76**
9	KCP&L Project Manager	$246,600.80
10	KCP&L Administrative Support	$91,189.76
11	KCP&L Engineer	$405,323.20
12	Owners Engineer Project Manager	$120,992.00
13	Owners Engineer - Engineer	$687,744.00
14	**Demolition Contractor Overhead during Dismantlement**	**$845,925.12**
15	Demolition Contractor Project Manager	$239,341.28
16	Demolition Contractor Safety Manager	$213,105.12
17	Demolition Contractor Superintendent	$393,478.72
18	**Demolition Contractor Equipment Rental Cost**	**$1,440,377.92**
19	Equipment Rental	$1,440,377.92
20	**Demolition Contractor Consumables**	**$1,437,034.72**
21	Consumables	$1,437,034.72
22	**Scrap Crews**	**$378,322.88**
23	Crew to Handle Scrap Material(s)	$378,322.88
24	**Dismantlement**	**$982,145.24**
25	**Electrical**	**$197,049.60**
26	Electrical Demolition of Equipment	$197,049.60
27	**Fuel Gas System**	**$21,113.20**
28	Remove all above grade fuel gas piping.	$6,782.32
29	Gas Filter Skid	$14,330.88
30	**Lube Oil System**	**$53,740.80**
31	Lube Oil Piping	$14,330.88
32	Lube Oil Pumps	$17,913.60
33	Lube Oil Tanks	$21,496.32
34	**Compressed Air System**	**$21,496.32**
35	Compressed Air Piping	$10,748.16
36	Compressors	$5,374.08
37	Air Receiver	$3,582.72
38	Dryer	$1,791.36
39	**Fire Protection**	**$26,870.40**
40	Fire Protection Piping	$19,704.96
41	CO2 Storage Tank	$7,165.44
42	**Wash Water Skid**	**$10,748.16**
43	Detergent Tank	$10,748.16
44	**Miscellaneous Piping**	**$62,697.60**

Crossroads Dismantlement

ID	Task Name	Cost
45	Exhaust Frame Cooling Piping	$17,913.60
46	CT Air Processing Piping	$21,496.32
47	Inlet Air Heating Piping	$23,287.68
48	**Generator**	**$0.00**
49	Generators	$0.00
50	**Combustion Turbine**	**$263,329.92**
51	Inlet Heaters	$17,913.60
52	Inlet ducts	$26,870.40
53	Exhaust ducts	$35,827.20
54	Combustion Turbines	$62,697.60
55	Combustion Turbine Foundations	$66,280.32
56	Enclosures	$53,740.80
57	**CEMS**	**$42,992.64**
58	CEMS Building	$21,496.32
59	CEMS Building Foundation	$21,496.32
60	**Stack**	**$80,611.20**
61	Stacks	$80,611.20
62	**Buildings**	**$17,913.60**
63	Remove Maintenance Building	$17,913.60
64	**Waste Water Tank**	**$8,956.80**
65	Remove Waste Water Tank	$8,956.80
66	**Site Prep**	**$174,625.00**
67	Final Grading and Drainage	$174,625.00
68	**Post Dismantlement Activities**	**$49,140.00**
69	Post Dismantlement Activities	$49,140.00

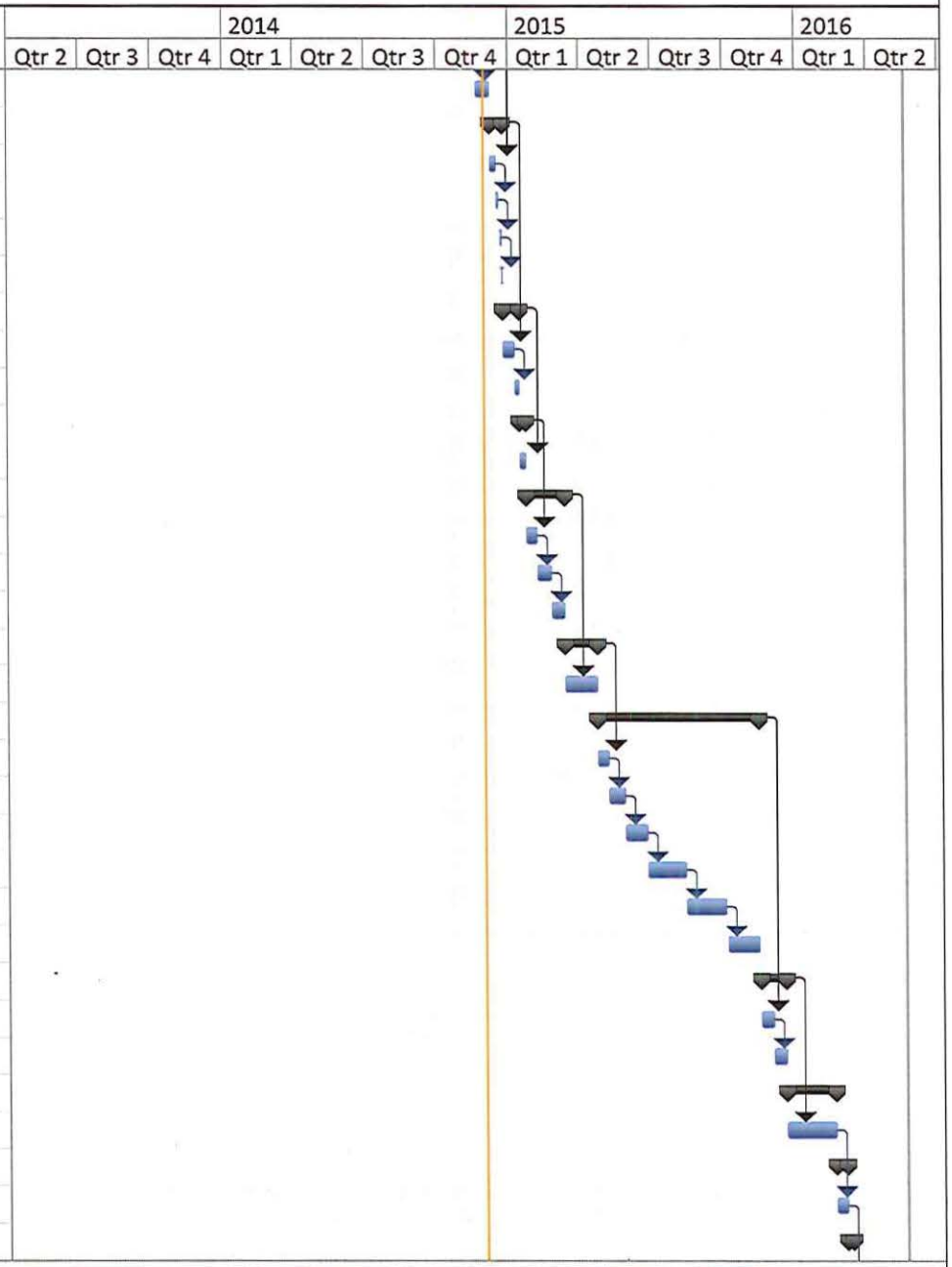
Crossroads Dismantlement

ID	Task Name	Duration
1	**Crossroads Dismantlement**	**688 days**
2	**Pre-Demolition Activities**	**260 days**
3	Detailed Planning & Hire Owner's Engineer	3 mons
4	Detailed Site Characterization Study	130 days
5	Hire Demolition general Contractor	3 mons
6	KCP&L Prepares Unit for Dismantlement	1 wk
7	Demolition Contractor Mobilizes on Site	5 days
8	**KCP&L Overhead during Dismantlement**	**398 days**
9	KCP&L Project Manager	398 days
10	KCP&L Administrative Support	398 days
11	KCP&L Engineer	398 days
12	Owners Engineer Project Manager	398 days
13	Owners Engineer - Engineer	398 days
14	**Demolition Contractor Overhead during Dismantlemer**	**398 days**
15	Demolition Contractor Project Manager	398 days
16	Demolition Contractor Safety Manager	398 days
17	Demolition Contractor Superintendent	398 days
18	**Demolition Contractor Equipment Rental Cost**	**398 days**
19	Equipment Rental	398 days
20	**Demolition Contractor Consumables**	**398 days**
21	Consumables	398 days
22	**Scrap Crews**	**398 days**
23	Crew to Handle Scrap Material(s)	398 days
24	**Dismantlement**	**398 days**
25	**Electrical**	**110 days**
26	Electrical Demolition of Equipment	110 days
27	**Fuel Gas System**	**20 days**
28	Remove all above grade fuel gas piping.	12 days
29	Gas Filter Skid	8 days
30	**Lube Oil System**	**30 days**
31	Lube Oil Piping	8 days
32	Lube Oil Pumps	10 days



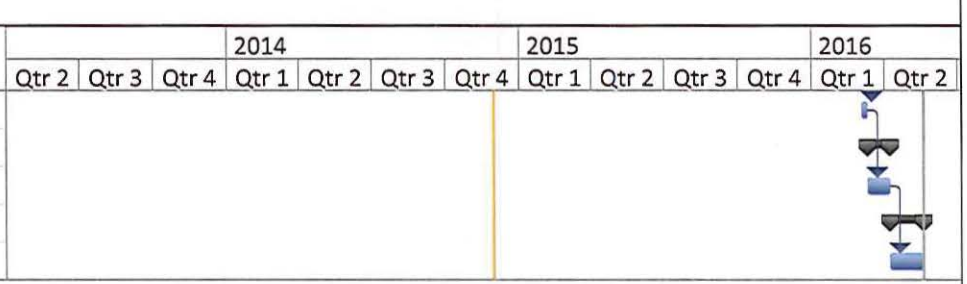
Crossroads Dismantlement

ID	Task Name	Duration
33	Lube Oil Tanks	12 days
34	**Compressed Air System**	**12 days**
35	Compressed Air Piping	6 days
36	Compressors	3 days
37	Air Receiver	2 days
38	Dryer	1 day
39	**Fire Protection**	**15 days**
40	Fire Protection Piping	11 days
41	CO2 Storage Tank	4 days
42	**Wash Water Skid**	**6 days**
43	Detergent Tank	6 days
44	**Miscellaneous Piping**	**35 days**
45	Exhaust Frame Cooling Piping	10 days
46	CT Air Processing Piping	12 days
47	Inlet Air Heating Piping	13 days
48	**Generator**	**29 days**
49	Generators	29 days
50	**Combustion Turbine**	**147 days**
51	Inlet Heaters	10 days
52	Inlet ducts	15 days
53	Exhaust ducts	20 days
54	Combustion Turbines	35 days
55	Combustion Turbine Foundations	37 days
56	Enclosures	30 days
57	**CEMS**	**24 days**
58	CEMS Building	12 days
59	CEMS Building Foundation	12 days
60	**Stack**	**45 days**
61	Stacks	45 days
62	**Buildings**	**10 days**
63	Remove Maintenance Building	10 days
64	**Waste Water Tank**	**5 days**



Crossroads Dismantlement

ID	Task Name	Duration
65	Remove Waste Water Tank	5 days
66	**Site Prep**	**20 days**
67	Final Grading and Drainage	20 days
68	**Post Dismantlement Activities**	**30 days**
69	Post Dismantlement Activities	30 days



KCl

KCI STATION

The KCI Generating Station consists of two natural gas-fired combustion turbine generator sets.

Combined, these combustion turbines have an SPP-accredited unit rating of 0 MW. KCI was placed into service in 1971. Each unit is comprised of a Pratt & Whitney GG4A-7 combustion turbine with a generator step-up transformer and auxiliary power transformer.

The following are the major systems and equipment that were included in the retirement and dismantlement of the KCI Generating Station.

1. Combustion turbine generator sets and auxiliaries.
2. Generation step-up and auxiliary transformers.
3. Outdoor switchgear.
4. Exhaust stacks.
5. Control Room/Maintenance building.
6. Gas compressor building and equipment.
7. Black-start generator.
8. Service/Instrument air compressors.
9. Glycol cooling towers.
10. Fire protection systems.

KCI Retirement

Owner Costs			
Pre-Retirement Activities		$43,834	
Retirement Activities		$112,691	
Post-Retirement Activities		$16,932	
Owner Direct Total			$173,457
Owner Internal Costs	5.00%		$8,673
Owner Contingency:	25.00%		$45,532
KCI Retirement Opinion of Probable Cost:			$227,662.31

KCI Retirement

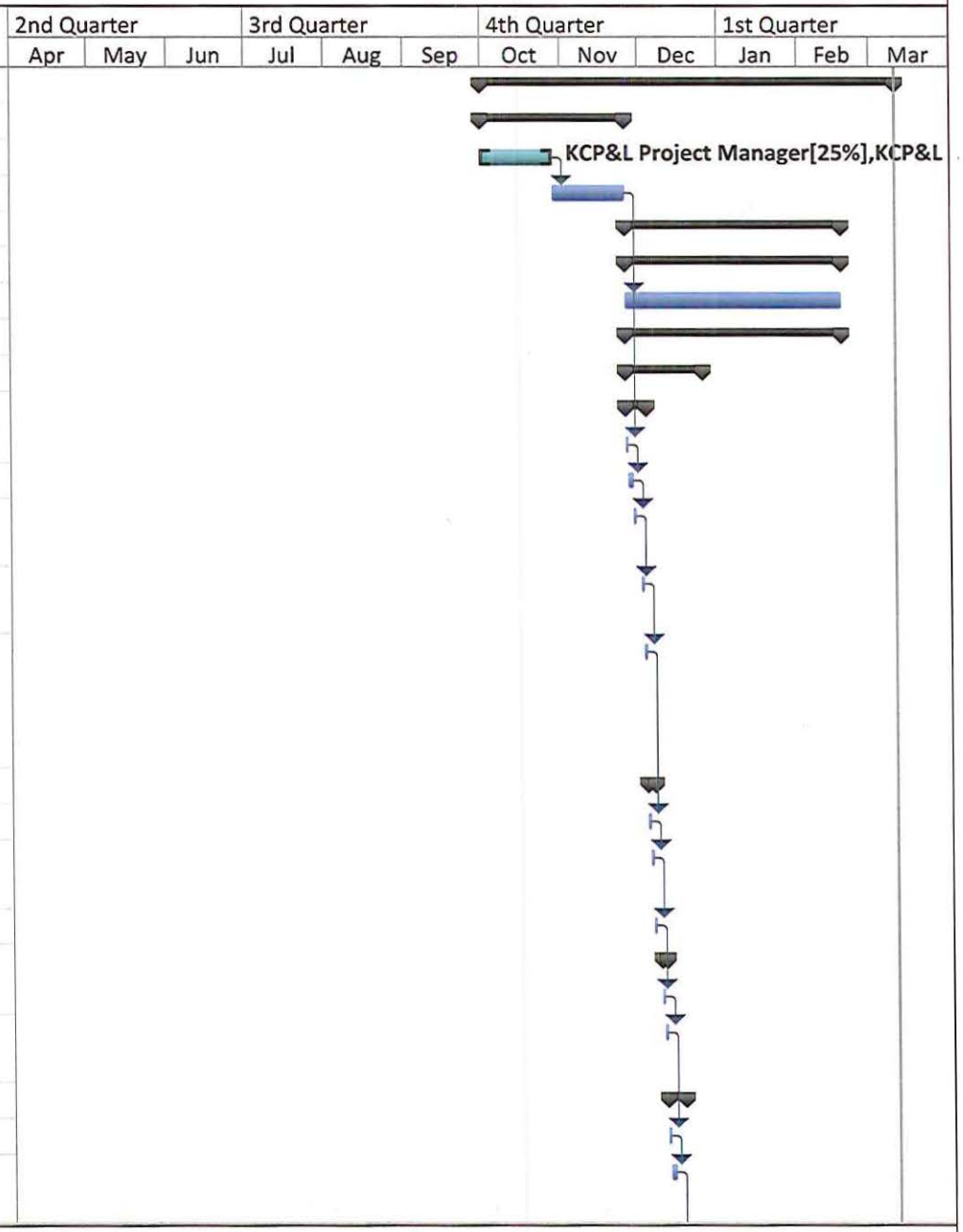
ID	Task Name	Cost
1	**KCI Retirement**	**$173,457.84**
2	**Pre-Retirement Activities**	**$43,834.00**
3	Permitting Review	$23,466.00
4	Develop Detailed Retirement Plan	$20,368.00
5	**Retirement**	**$112,691.84**
6	**Project Management During Retirement**	**$48,121.20**
7	Project Management During Retirement	$48,121.20
8	**Retirement Activities**	**$64,570.64**
9	**Electrical**	**$19,652.16**
10	**Medium and Low Voltage Drawout Switchgear**	**$5,359.68**
11	De-energize all buses at the source.	$893.28
12	Open all circuit breakers.	$1,786.56
13	Rack all circuit breakers into the fully withdrawn, disconnected position.	$893.28
14	Verify that the closing/tripping springs are discharged.	$893.28
15	De-energize control power and auxiliary power circuits of each circuit breaker at the source and by opening control power circuit breakers or removing fuses in each breaker cubicle.	$893.28
16	**Motor Control Centers**	**$2,679.84**
17	De-energize all buses at the source.	$893.28
18	Open all circuit breakers and disconnect switches.	$893.28
19	Remove all fuses in control circuits.	$893.28
20	**Low-voltage Switchboards and Panelboards**	**$1,786.56**
21	De-energize all buses at the source.	$893.28
22	Open all circuit breakers and disconnect switches.	$893.28
23	**Oil-Filled Power Transformers**	**$4,466.40**
24	De-energize all buses at the source.	$893.28
25	Open all circuit breakers and disconnect switches.	$1,786.56
26	De-energize all buses at the source.	$893.28
27	Open all circuit breakers and disconnect switches.	$893.28
28	**Dry-type Power Transformers**	**$1,786.56**
29	De-energize all transformer primaries and verify that the secondary is de-energized.	$893.28
30	De-energize all low-voltage AC or DC power sources for space heaters, cooling equipment, controls, etc. at the source and open circuit breakers or remove fuses at transformer end.	$893.28
31	**Motors**	**$3,573.12**
32	De-energize all primary power at the source.	$893.28
33	De-energize all low-voltage power sources for space heaters or other auxiliary equipment at the source.	$893.28
34	Drain lube oil system (if applicable) and dispose of oil.	$1,786.56
35	**Enclosure Building**	**$3,736.96**

KCI Retirement

ID	Task Name	Cost
36	Secure the Enclosure Building	$3,736.96
37	**Gas Compressor Building**	**$1,868.48**
38	Secure the Gas Compressor Building	$1,868.48
39	**Shop Building**	**$3,736.96**
40	Secure the Shop Building	$3,736.96
41	**Cooling Towers**	**$5,209.92**
42	Drain Cooling Tower	$3,907.44
43	Drain Cooling Tower Chemical Storage Tanks	$1,302.48
44	**Fuel Gas System**	**$5,612.00**
45	Isolate Fuel Gas System	$3,907.44
46	Vent Fuel Gas Piping and Equipment	$842.72
47	Open and Vent Equipment on the CT Gas Valve Module	$861.84
48	**Lube Oil Cooling Water System**	**$2,585.52**
49	Open and Drain the Glycol Side of the Lube Oil Coolers	$1,723.68
50	Open and Vent the Coolers and Expansion Tank	$861.84
51	**Sump**	**$3,954.00**
52	Open and Pump Out the Sump	$3,954.00
53	**Miscelleaneous Piping**	**$2,585.52**
54	Open and Vent Miscellaneous Piping	$2,585.52
55	**Fire Protection Piping**	**$3,428.24**
56	Empty the CO2 Storage Tank	$2,566.40
57	Open and Vent the Fire Protection Piping	$861.84
58	**Lube Oil System**	**$5,151.92**
59	Empty and Remove from Site the Lubricating Oil	$2,566.40
60	Drain Lubricating Oil Piping	$1,723.68
61	Open and Vent Lubricating Oil Piping	$861.84
62	**Service Piping**	**$5,286.72**
63	Disconnect Potable Water at Property Boundary	$2,643.36
64	Disconnect Compressed Air at Property Boundary	$2,643.36
65	**Black Start Engine**	**$1,762.24**
66	Vent Fuel Gas Piping to Black Start Enginer	$881.12
67	**Post Retirement Closure Activity**	**$16,932.00**
68	Post Retirement Closure Activity	$16,932.00

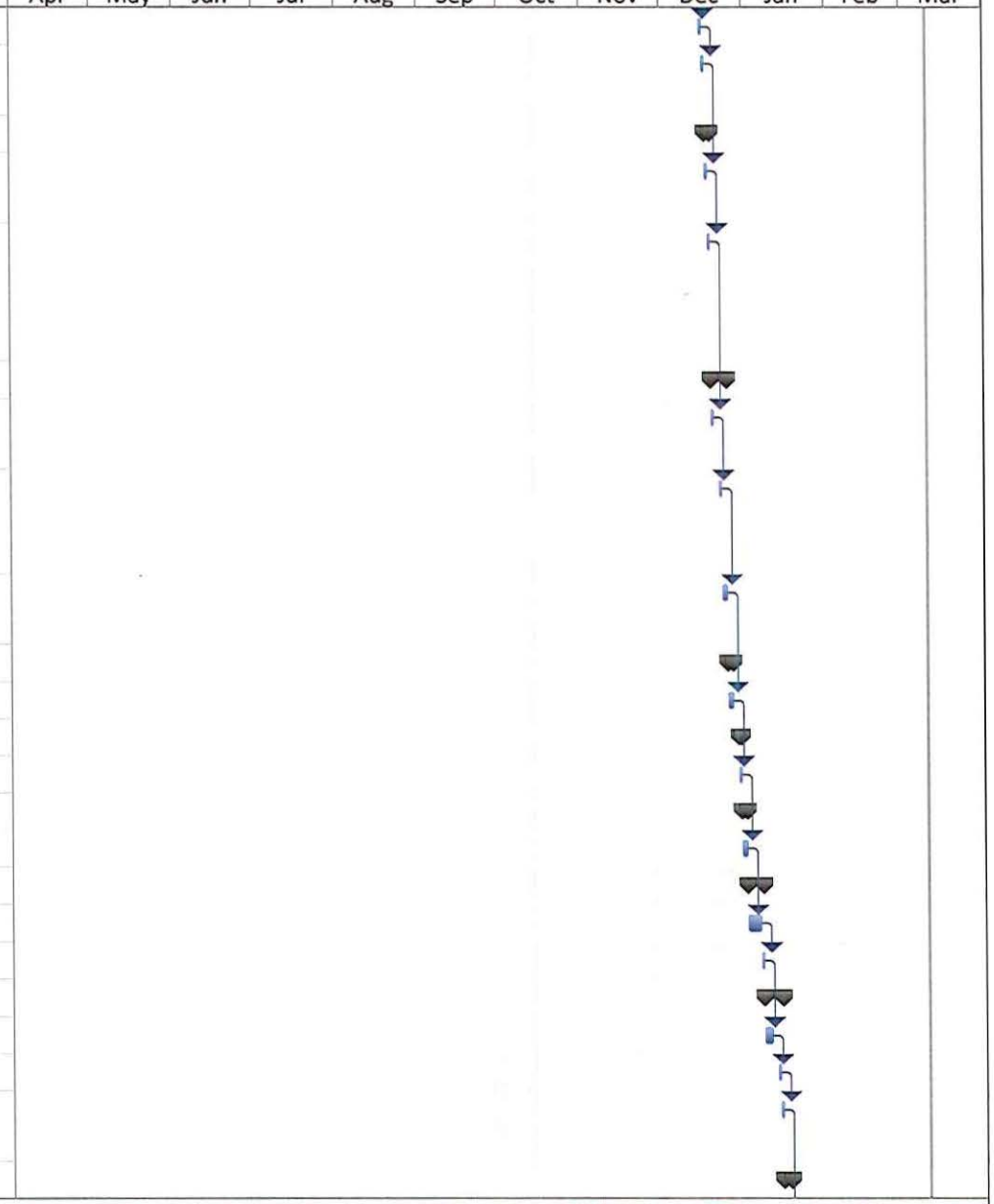
KCI Retirement

ID	Task Name	Duration
1	**KCI Retirement**	**115 days**
2	**Pre-Retirement Activities**	**40 days**
3	Permitting Review	20 days
4	Develop Detailed Retirement Plan	20 days
5	**Retirement**	**60 days**
6	**Project Management During Retirement**	**60 days**
7	Project Management During Retirement	60 days
8	**Retirement Activities**	**60 days**
9	**Electrical**	**22 days**
10	**Medium and Low Voltage Drawout Switchg**	**6 days**
11	De-energize all buses at the source.	1 day
12	Open all circuit breakers.	2 days
13	Rack all circuit breakers into the fully withdrawn, disconnected position.	1 day
14	Verify that the closing/tripping springs are discharged.	1 day
15	De-energize control power and auxiliary power circuits of each circuit breaker at the source and by opening control power circuit breakers or removing fuses in each	1 day
16	**Motor Control Centers**	**3 days**
17	De-energize all buses at the source.	1 day
18	Open all circuit breakers and disconnect switches.	1 day
19	Remove all fuses in control circuits.	1 day
20	**Low-voltage Switchboards and Panelboards**	**2 days**
21	De-energize all buses at the source.	1 day
22	Open all circuit breakers and disconnect switches.	1 day
23	**Oil-Filled Power Transformers**	**5 days**
24	De-energize all buses at the source.	1 day
25	Open all circuit breakers and disconnect switches.	2 days



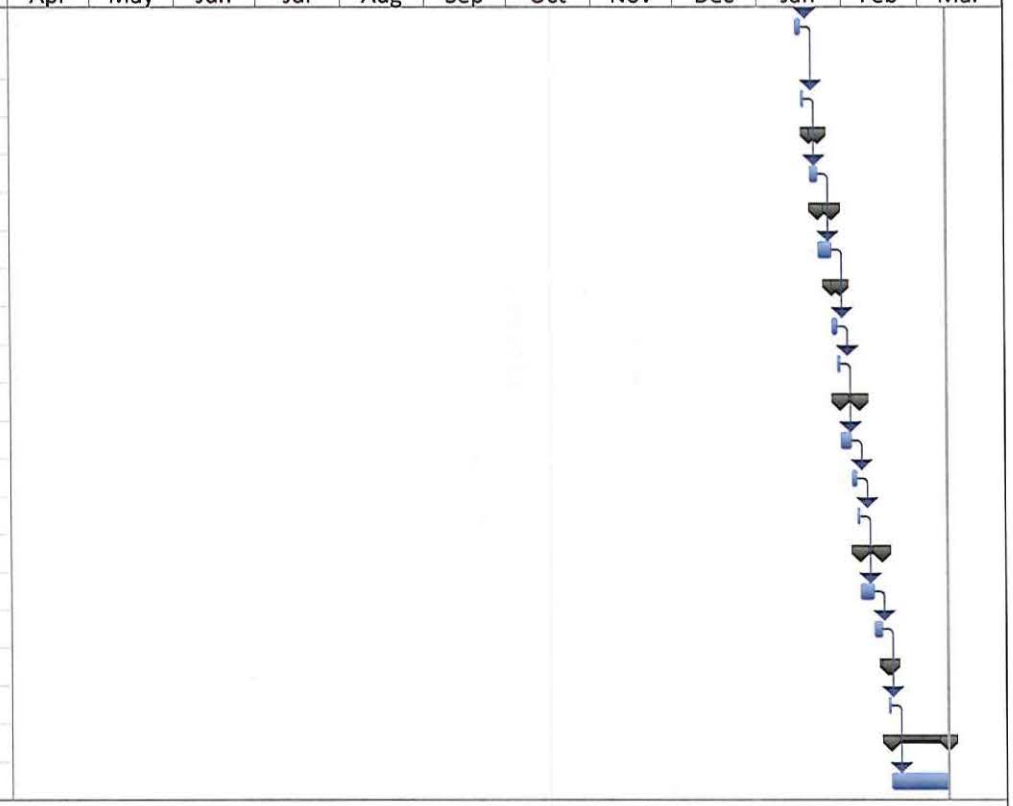
KCI Retirement

ID	Task Name	Duration
26	De-energize all buses at the source.	1 day
27	Open all circuit breakers and disconnect switches.	1 day
28	**Dry-type Power Transformers**	**2 days**
29	De-energize all transformer primaries and verify that the secondary is de-energized.	1 day
30	De-energize all low-voltage AC or DC power sources for space heaters, cooling equipment, controls, etc. at the source and open circuit breakers or remove fuses	1 day
31	**Motors**	**4 days**
32	De-energize all primary power at the source.	1 day
33	De-energize all low-voltage power sources for space heaters or other auxiliary equipment at the source.	1 day
34	Drain lube oil system (if applicable) and dispose of oil.	2 days
35	**Enclosure Building**	**2 days**
36	Secure the Enclosure Building	2 days
37	**Gas Compressor Building**	**1 day**
38	Secure the Gas Compressor Building	1 day
39	**Shop Building**	**2 days**
40	Secure the Shop Building	2 days
41	**Cooling Towers**	**4 days**
42	Drain Cooling Tower	3 days
43	Drain Cooling Tower Chemical Storage Tanks	1 day
44	**Fuel Gas System**	**5 days**
45	Isolate Fuel Gas System	3 days
46	Vent Fuel Gas Piping and Equipment	1 day
47	Open and Vent Equipment on the CT Gas Valve Module	1 day
48	**Lube Oil Cooling Water System**	**3 days**



KCI Retirement

ID	Task Name	Duration
49	Open and Drain the Glycol Side of the Lube Oil Coolers	2 days
50	Open and Vent the Coolers and Expansion Ta	1 day
51	**Sump**	**3 days**
52	Open and Pump Out the Sump	3 days
53	**Miscelleaneous Piping**	**3 days**
54	Open and Vent Miscellaneous Piping	3 days
55	**Fire Protection Piping**	**3 days**
56	Empty the CO2 Storage Tank	2 days
57	Open and Vent the Fire Protection Piping	1 day
58	**Lube Oil System**	**5 days**
59	Empty and Remove from Site the Lubricating	2 days
60	Drain Lubricating Oil Piping	2 days
61	Open and Vent Lubricating Oil Piping	1 day
62	**Service Piping**	**6 days**
63	Disconnect Potable Water at Property Bound	3 days
64	Disconnect Compressed Air at Property Boun	3 days
65	**Black Start Engine**	**1 day**
66	Vent Fuel Gas Piping to Black Start Enginer	1 day
67	**Post Retirement Closure Activity**	**15 days**
68	Post Retirement Closure Activity	15 days



KCI Dismantlement

Owner Costs				
Pre-Dismantlement Activities			$473,576	
Overhead During Dismantlement			$279,378	
Post-Dismantlement Activities			$32,760	
Owner Costs Total*				$785,714
Demolition General Contractor (DGC) Costs				
Site Management			$176,411	
Equipment Rental			$300,380	
Consummables			$299,683	
Scrap Crew(s)			$78,896	
Dismantlement			$263,996	
Contractor Direct Cost*		$1,119,366		
Contractor Allowances				
DGC Insurance	2.00%		$22,387	
Contingency/Profit	15.00%		$171,263	
Performance Bond	2.00%		$26,260.33	
Contractor Costs Total:				$1,339,277

Total:		$2,124,991
Owner Internal Costs:	5.00%	$106,250
Owner Contingency:	25.00%	$557,810
KCI Dismantlement Opinion of Probable Cost:		$2,789,050

*Owner Costs Total + Contractor Direct Costs = Manpower Loaded Schedule Total w/o Contractor Allowances
= $1,905,080

KCI Dismantlement

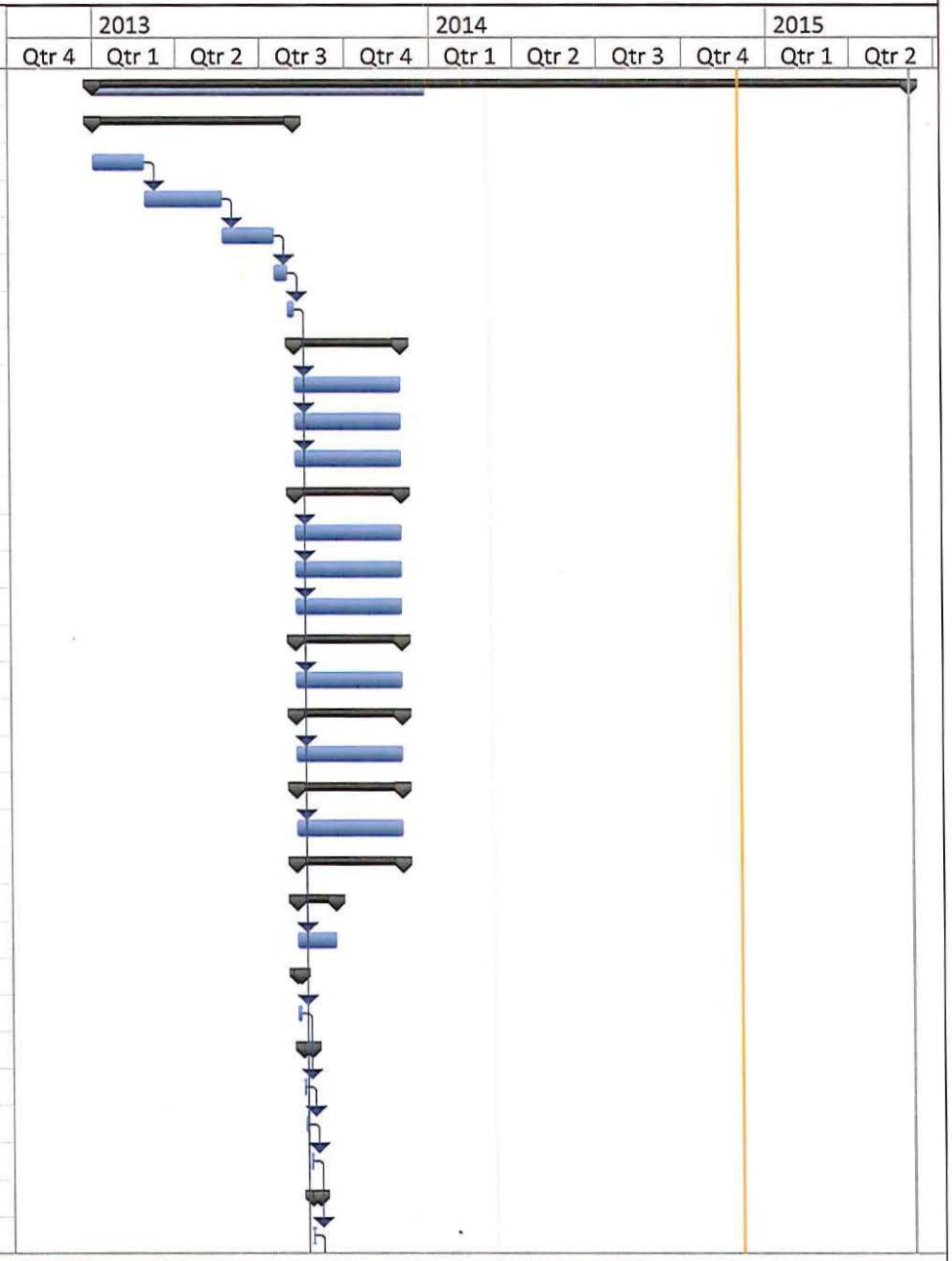
ID	Task Name	Cost
1	**KCI Dismantlement**	**$1,905,082.52**
2	**Pre-Demolition Activities**	**$473,576.40**
3	Detailed Planning & Hire Owner's Engineer	$69,627.52
4	Detailed Site Characterization Study	$281,693.28
5	Hire Demolition general Contractor	$111,456.00
6	KCP&L Prepares Unit for Dismantlement	$10,799.60
7	Demolition Contractor Mobilizes on Site	$0.00
8	**KCP&L Overhead during Dismantlement**	**$279,378.00**
9	KCP&L Project Manager	$51,426.80
10	KCP&L Engineer	$84,527.20
11	Owners Engineer - Engineer	$143,424.00
12	**Demolition Contractor Overhead during Dismantlement**	**$176,411.52**
13	Demolition Contractor Project Manager	$49,912.88
14	Demolition Contractor Safety Manager	$44,441.52
15	Demolition Contractor Superintendent	$82,057.12
16	**Demolition Contractor Equipment Rental Cost**	**$300,380.32**
17	Equipment Rental	$300,380.32
18	**Demolition Contractor Consumables**	**$299,683.12**
19	Consumables	$299,683.12
20	**Scrap Crews**	**$78,896.48**
21	Crew to Handle Scrap Material(s)	$78,896.48
22	**Dismantlement**	**$263,996.68**
23	**Electrical**	**$53,740.80**
24	Electrical Demolition of Equipment	$53,740.80
25	**Shop Building**	**$7,165.44**
26	Remove the Shop Building	$7,165.44
27	**Fuel Gas System**	**$10,437.52**
28	Remove all above grade fuel gas piping.	$1,480.72
29	Remove Gas Compressor Equipment	$5,374.08
30	Remove Gas Compressor Building	$3,582.72
31	**Lube Oil System**	**$10,748.16**
32	Lube Oil Piping	$1,791.36
33	Lube Oil Pumps	$3,582.72
34	Lube Oil Tanks	$5,374.08
35	**Compressed Air System**	**$1,791.36**
36	Remove Above Ground Compressed Air Piping	$1,791.36
37	**Fire Protection**	**$10,748.16**
38	Fire Protection Piping	$3,582.72
39	CO2 Storage Tank	$7,165.44
40	**Miscellaneous Piping**	**$10,748.16**
41	Remove Miscellaneous Piping	$8,956.80
42	Remove Above Ground Service Water Piping	$1,791.36
43	**Generator**	**$17,913.60**
44	Generators	$17,913.60

KCI Dismantlement

ID	Task Name	Cost
45	**Combustion Turbine**	**$62,697.60**
46	Inlet ducts	$7,165.44
47	Exhaust ducts	$7,165.44
48	Combustion Turbines	$17,913.60
49	Combustion Turbine Foundation	$21,496.32
50	Combustion Turbine Enclosure Building	$8,956.80
51	**Cooling Towers**	**$10,748.16**
52	Remove Cooling Towers	$10,748.16
53	**Stack**	**$3,582.72**
54	Stacks	$3,582.72
55	**Site Prep**	**$63,675.00**
56	Final Grading and Drainage	$63,675.00
57	**Post Dismantlement Activities**	**$32,760.00**
58	Post Dismantlement Activities	$32,760.00

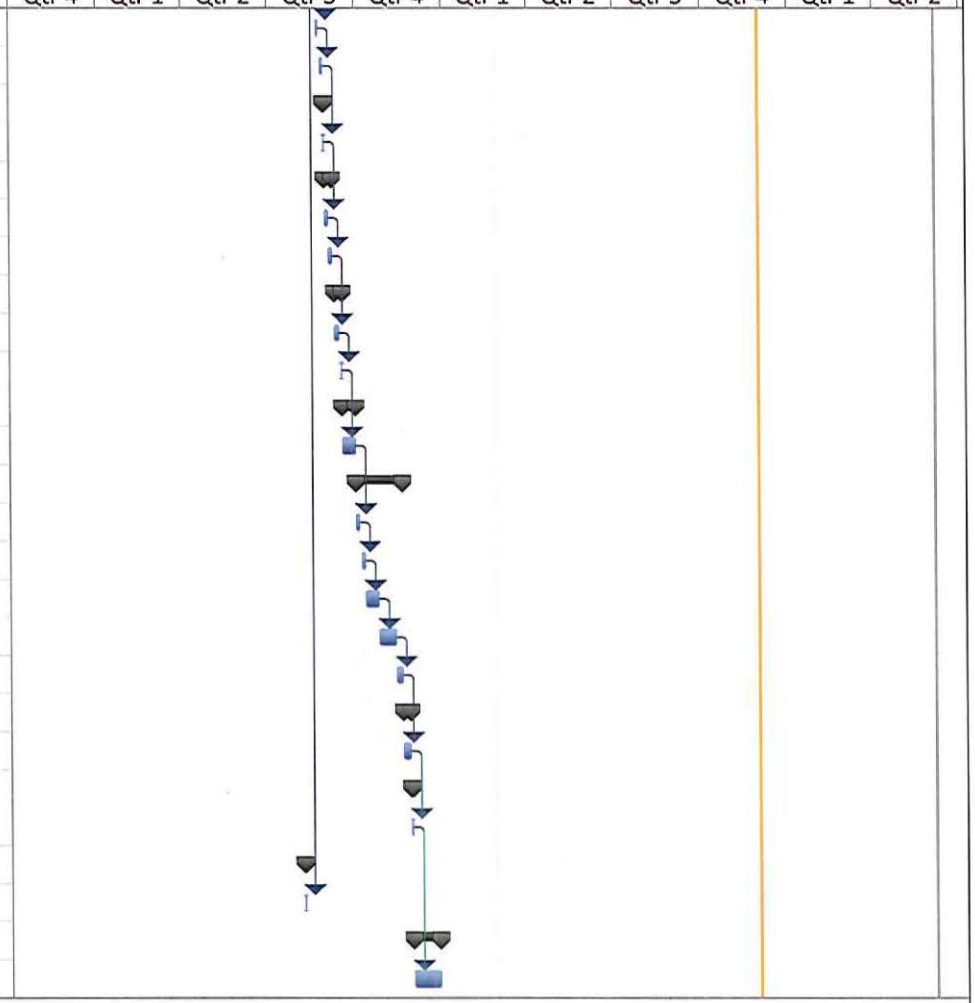
KCI Dismantlement

ID	Task Name	Duration
1	**KCI Dismantlement**	**633 days**
2	**Pre-Demolition Activities**	**155 days**
3	Detailed Planning & Hire Owner's Engineer	2 mons
4	Detailed Site Characterization Study	60 days
5	Hire Demolition general Contractor	2 mons
6	KCP&L Prepares Unit for Dismantlement	2 wks
7	Demolition Contractor Mobilizes on Site	5 days
8	**KCP&L Overhead during Dismantlement**	**83 days**
9	KCP&L Project Manager	83 days
10	KCP&L Engineer	83 days
11	Owners Engineer - Engineer	83 days
12	**Demolition Contractor Overhead during Dismantlemer**	**83 days**
13	Demolition Contractor Project Manager	83 days
14	Demolition Contractor Safety Manager	83 days
15	Demolition Contractor Superintendent	83 days
16	**Demolition Contractor Equipment Rental Cost**	**83 days**
17	Equipment Rental	83 days
18	**Demolition Contractor Consumables**	**83 days**
19	Consumables	83 days
20	**Scrap Crews**	**83 days**
21	Crew to Handle Scrap Material(s)	83 days
22	**Dismantlement**	**83 days**
23	**Electrical**	**30 days**
24	Electrical Demolition of Equipment	30 days
25	**Shop Building**	**4 days**
26	Remove the Shop Building	4 days
27	**Fuel Gas System**	**7 days**
28	Remove all above grade fuel gas piping.	2 days
29	Remove Gas Compressor Equipment	3 days
30	Remove Gas Compressor Building	2 days
31	**Lube Oil System**	**6 days**
32	Lube Oil Piping	1 day



KCI Dismantlement

ID	Task Name	Duration
33	Lube Oil Pumps	2 days
34	Lube Oil Tanks	3 days
35	**Compressed Air System**	**1 day**
36	Remove Above Ground Compressed Air Piping	1 day
37	**Fire Protection**	**6 days**
38	Fire Protection Piping	2 days
39	CO2 Storage Tank	4 days
40	**Miscellaneous Piping**	**6 days**
41	Remove Miscellaneous Piping	5 days
42	Remove Above Ground Service Water Piping	1 day
43	**Generator**	**10 days**
44	Generators	10 days
45	**Combustion Turbine**	**35 days**
46	Inlet ducts	4 days
47	Exhaust ducts	4 days
48	Combustion Turbines	10 days
49	Combustion Turbine Foundation	12 days
50	Combustion Turbine Enclosure Building	5 days
51	**Cooling Towers**	**6 days**
52	Remove Cooling Towers	6 days
53	**Stack**	**2 days**
54	Stacks	2 days
55	**Site Prep**	**1 day**
56	Final Grading and Drainage	1 day
57	**Post Dismantlement Activities**	**20 days**
58	Post Dismantlement Activities	20 days



NEVADA UNIT 1

NEVADA STATION

The Nevada Generating Station consists of a single distillate-fired combustion turbine generator set.

Nevada has an SPP-accredited unit rating of 20.8 MW. Nevada was placed into service in 1974. The unit is comprised of a GE Model MS5001P combustion turbine with a generator step-up transformer and auxiliary power transformer.

The following are the major systems and equipment that were included in the retirement and dismantlement of the Nevada Generating Station.

1. Combustion turbine generator sets and auxiliaries.
2. Generation step-up and auxiliary transformers.
3. Outdoor switchgear.
4. Exhaust stacks.
5. Maintenance building.
6. Fuel oil transfer equipment.
7. Service/Instrument air compressors.
8. Fuel oil storage.

Nevada Retirement

Owner Costs			
Pre-Retirement Activities		$43,834	
Retirement Activities		$125,254	
Post-Retirement Activities		$45,152	
Owner Direct Total		$214,240	
Owner Internal Costs	5.00%	$10,712	
Owner Contingency:	25.00%	$56,238	
Nevada Retirement Opinion of Probable Cost:			$281,190.00

Activities Required by Permit or Regulation

Nevada Storage Tank	$56,530	
Activities Required by Permit or Regulation:		$56,530

Nevada Retirement

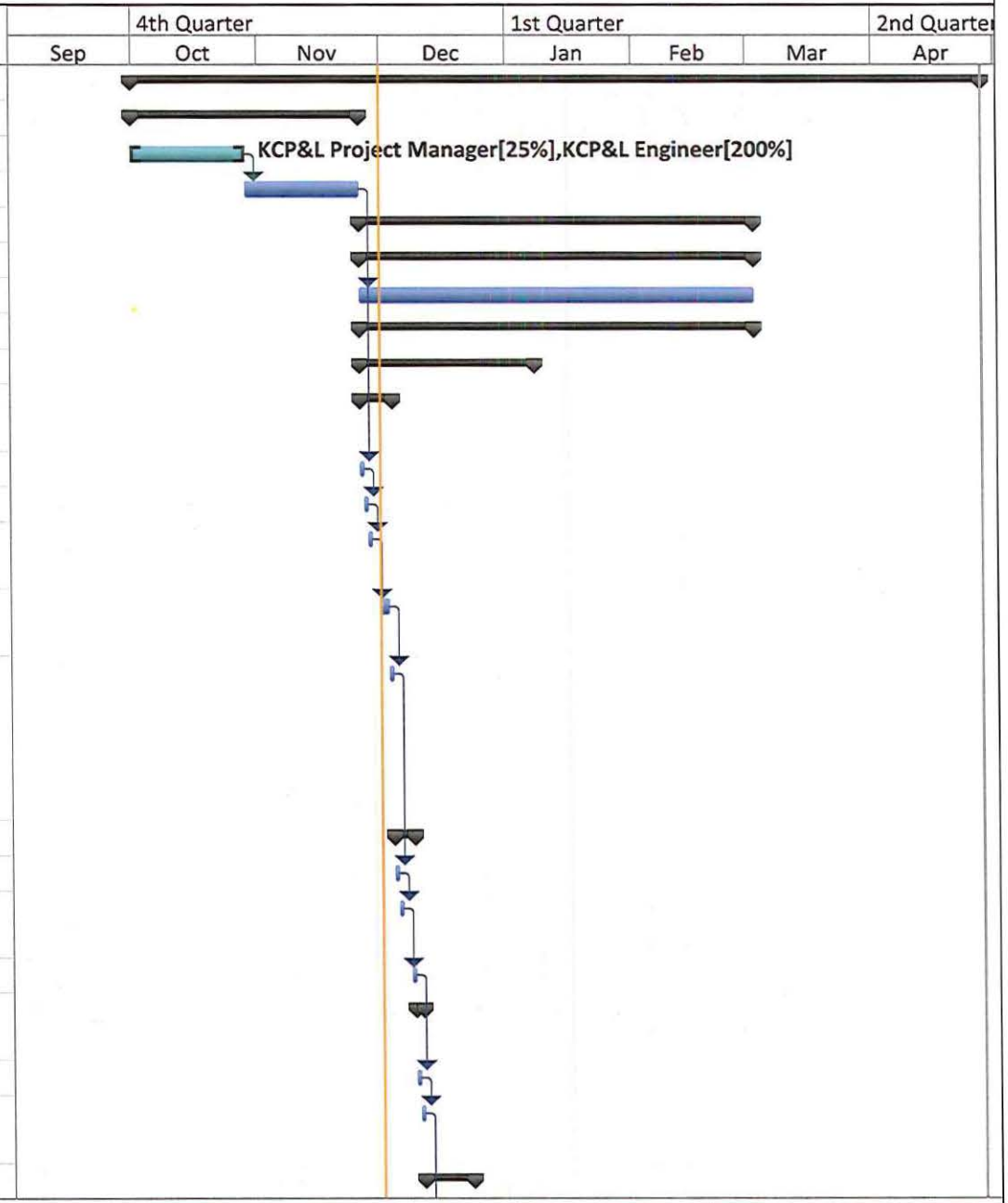
ID	Task Name	Cost
1	**Nevada Retirement**	**$214,240.42**
2	**Pre-Retirement Activities**	**$43,834.00**
3	Permitting Review	$23,466.00
4	Develop Detailed Retirement Plan	$20,368.00
5	**Retirement**	**$125,254.42**
6	**Project Management During Retirement**	**$55,339.38**
7	Project Management During Retirement	$55,339.38
8	**Retirement Activities**	**$69,915.04**
9	**Electrical**	**$27,691.68**
10	**Medium and Low Voltage Drawout Switchgear**	**$5,359.68**
11	De-energize all buses at the source.	$893.28
12	Open all circuit breakers.	$893.28
13	Rack all circuit breakers into the fully withdrawn, disconnected position.	$893.28
14	Verify that the closing/tripping springs are discharged.	$1,786.56
15	De-energize control power and auxiliary power circuits of each circuit breaker at the source and by opening control power circuit breakers or removing fuses in each breaker cubicle.	$893.28
16	**Motor Control Centers**	**$2,679.84**
17	De-energize all buses at the source.	$893.28
18	Open all circuit breakers and disconnect switches.	$893.28
19	Remove all fuses in control circuits.	$893.28
20	**Low-voltage Switchboards and Panelboards**	**$1,786.56**
21	De-energize all buses at the source.	$893.28
22	Open all circuit breakers and disconnect switches.	$893.28
23	**Oil-Filled Power Transformers**	**$7,146.24**
24	De-energize all buses at the source.	$893.28
25	Open all circuit breakers and disconnect switches.	$893.28
26	De-energize all buses at the source.	$893.28
27	Open all circuit breakers and disconnect switches.	$4,466.40
28	**Dry-type Power Transformers**	**$4,466.40**
29	De-energize all transformer primaries and verify that the secondary is de-energized.	$893.28
30	De-energize all low-voltage AC or DC power sources for space heaters, cooling equipment, controls, etc. at the source and open circuit breakers or remove fuses at transformer end.	$3,573.12
31	**Motors**	**$6,252.96**
32	De-energize all primary power at the source.	$893.28
33	De-energize all low-voltage power sources for space heaters or other auxiliary equipment at the source.	$893.28
34	Drain lube oil system (if applicable) and dispose of oil.	$4,466.40
35	**Maintenance Building**	**$3,736.96**
36	Secure the Maintenance Building	$3,736.96
37	**Fuel Oil System**	**$5,631.12**

Nevada Retirement

ID	Task Name	Cost
38	Isolate Fuel Oil System	$3,907.44
39	Drain and Vent Fuel Oil Piping	$1,723.68
40	**Lube Oil Cooling Water System**	**$2,585.52**
41	Open and Drain the Water Side of the Lube Oil Coolers	$1,723.68
42	Open and Vent the Coolers and Expansion Tank	$861.84
43	**Oily Drain Tank**	**$3,954.00**
44	Open and Pump Out the Oily Drain Tank	$3,954.00
45	**Compressed Air**	**$2,585.52**
46	Empty Dessiccant Air Dryers and Vent	$861.84
47	Open and Vent the Air Reciever	$1,723.68
48	**Miscelleaneous Piping**	**$5,171.04**
49	Open and Vent the Exhaust Frame Cooling Piping	$861.84
50	Open and Vent the Inlet Air Heating Piping	$861.84
51	Open & Vent the CT Air Process Piping	$861.84
52	Open and Vent the CT Air Processing Piping	$2,585.52
53	**Fire Protection Piping**	**$3,428.24**
54	Empty the CO2 Storage Tank	$2,566.40
55	Open and Vent the Fire Protection Piping	$861.84
56	**Lube Oil System**	**$8,580.16**
57	Empty and Remove from Site the Lubricating Oil	$5,132.80
58	Drain Lubricating Oil Piping	$1,723.68
59	Open and Vent Lubricating Oil Piping	$1,723.68
60	**Potable Water**	**$2,643.36**
61	Disconnect Potable Water at Property Boundary	$2,643.36
62	**Waste Water**	**$3,907.44**
63	Disconnect Waste Water at Property Boundary	$3,907.44
64	**Post Retirement Closure Activity**	**$45,152.00**
65	Post Retirement Closure Activity	$45,152.00

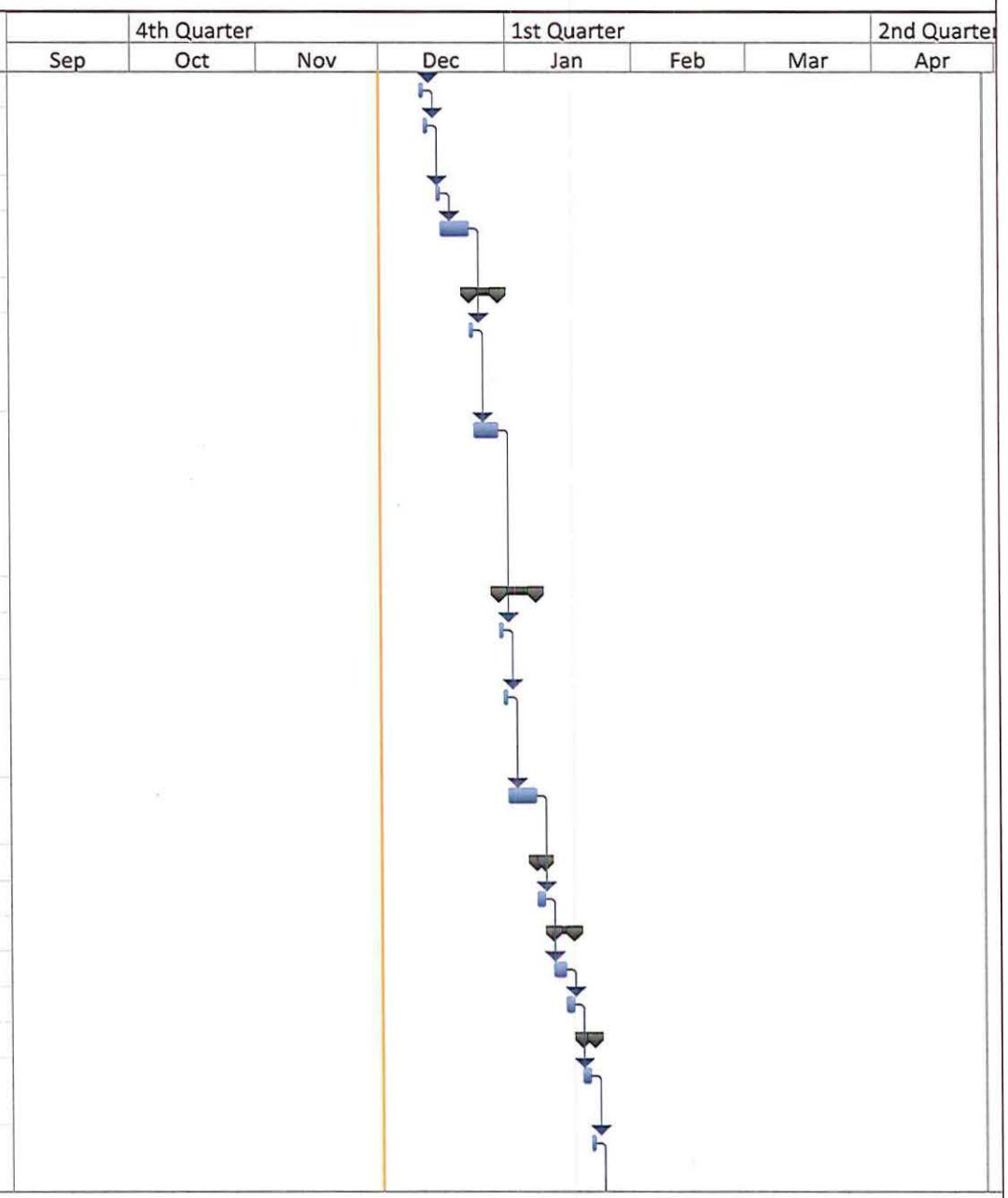
Nevada Retirement

ID	Task Name	Duration
1	**Nevada Retirement**	**149 days**
2	**Pre-Retirement Activities**	**40 days**
3	Permitting Review	20 days
4	Develop Detailed Retirement Plan	20 days
5	**Retirement**	**69 days**
6	**Project Management During Retirement**	**69 days**
7	Project Management During Retirement	69 days
8	**Retirement Activities**	**69 days**
9	**Electrical**	**31 days**
10	**Medium and Low Voltage Drawout Switchgear**	**6 days**
11	De-energize all buses at the source.	1 day
12	Open all circuit breakers.	1 day
13	Rack all circuit breakers into the fully withdrawn, disconnected	1 day
14	Verify that the closing/tripping springs are discharged.	2 days
15	De-energize control power and auxiliary power circuits of each circuit breaker at the source and by opening control power circuit breakers or removing fuses in each	1 day
16	**Motor Control Centers**	**3 days**
17	De-energize all buses at the source.	1 day
18	Open all circuit breakers and disconnect switches.	1 day
19	Remove all fuses in control circuits.	1 day
20	**Low-voltage Switchboards and Panelboards**	**2 days**
21	De-energize all buses at the source.	1 day
22	Open all circuit breakers and disconnect switches.	1 day
23	**Oil-Filled Power Transformers**	**8 days**



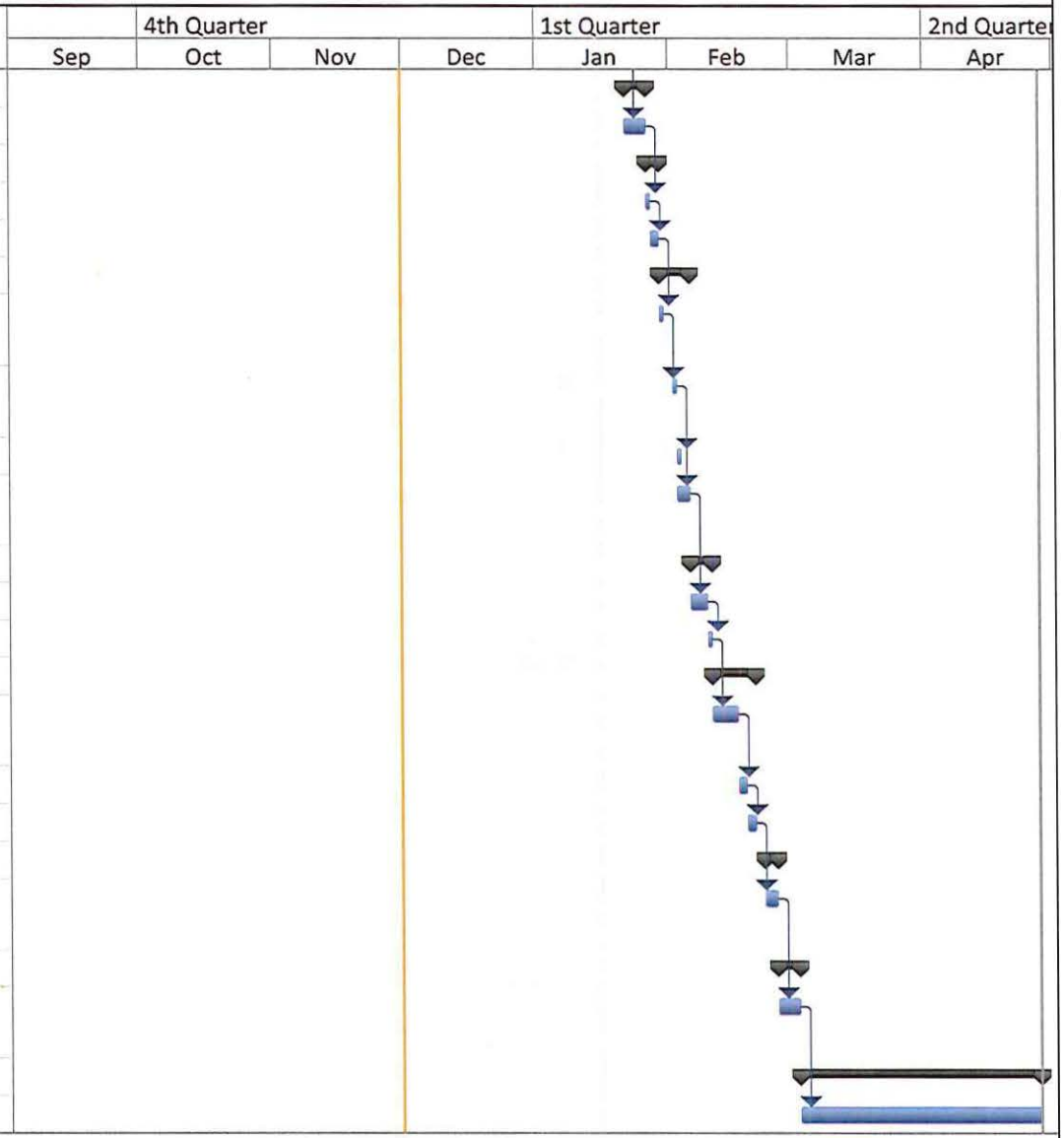
Nevada Retirement

ID	Task Name	Duration
24	De-energize all buses at the source.	1 day
25	Open all circuit breakers and disconnect switches.	1 day
26	De-energize all buses at the source.	1 day
27	Open all circuit breakers and disconnect switches.	5 days
28	**Dry-type Power Transformers**	**5 days**
29	De-energize all transformer primaries and verify that the secondary is de-energized.	1 day
30	De-energize all low-voltage AC or DC power sources for space heaters, cooling equipment, controls, etc. at the source and open circuit breakers or remove fuses at transformer end.	4 days
31	**Motors**	**7 days**
32	De-energize all primary power at the source.	1 day
33	De-energize all low-voltage power sources for space heaters or other auxiliary equipment at the source.	1 day
34	Drain lube oil system (if applicable) and dispose of oil.	5 days
35	**Maintenance Building**	**2 days**
36	Secure the Maintenance Building	2 days
37	**Fuel Oil System**	**5 days**
38	Isolate Fuel Oil System	3 days
39	Drain and Vent Fuel Oil Piping	2 days
40	**Lube Oil Cooling Water System**	**3 days**
41	Open and Drain the Water Side of the Lube Oil Coolers	2 days
42	Open and Vent the Coolers and Expansion Tank	1 day



Nevada Retirement

ID	Task Name	Duration
43	**Oily Drain Tank**	**3 days**
44	Open and Pump Out the Oily Drain Tank	3 days
45	**Compressed Air**	**3 days**
46	Empty Dessiccant Air Dryers and Vent	1 day
47	Open and Vent the Air Reciever	2 days
48	**Miscelleaneous Piping**	**5 days**
49	Open and Vent the Exhaust Frame Cooling Piping	1 day
50	Open and Vent the Inlet Air Heating Piping	1 day
51	Open & Vent the CT Air Process Piping	1 day
52	Open and Vent the CT Air Processing Piping	3 days
53	**Fire Protection Piping**	**3 days**
54	Empty the CO2 Storage Tank	2 days
55	Open and Vent the Fire Protection Pipin	1 day
56	**Lube Oil System**	**8 days**
57	Empty and Remove from Site the Lubricating Oil	4 days
58	Drain Lubricating Oil Piping	2 days
59	Open and Vent Lubricating Oil Piping	2 days
60	**Potable Water**	**3 days**
61	Disconnect Potable Water at Property Boundary	3 days
62	**Waste Water**	**3 days**
63	Disconnect Waste Water at Property Boundary	3 days
64	**Post Retirement Closure Activity**	**40 days**
65	Post Retirement Closure Activity	40 days



Nevada Dismantlement

Owner Costs				
Pre-Dismantlement Activities			$892,760	
Overhead During Dismantlement			$799,319	
Post-Dismantlement Activities			$65,520	
Owner Costs Total*				$1,757,599
Demolition General Contractor (DGC) Costs				
Site Management			$435,715	
Equipment Rental			$741,903	
Consummables			$740,181	
Scrap Crew(s)			$194,864	
Dismantlement			$515,571	
Contractor Direct Cost*		$2,628,234		
Contractor Allowances				
DGC Insurance	2.00%		$52,565	
Contingency/Profit	15.00%		$402,120	
Performance Bond	2.00%		$61,658.37	
Contractor Costs Total:				$3,144,577
Total:				$4,902,176
Owner Internal Costs:	5.00%			$245,109
Owner Contingency:	25.00%			$1,286,821
Nevada Dismantlement Opinion of Probable Cost:				$6,434,106

*Owner Costs Total + Contractor Direct Costs = Manpower Loaded Schedule Total w/o Contractor Allowances
= $4,385,833

Nevada Dismantlement

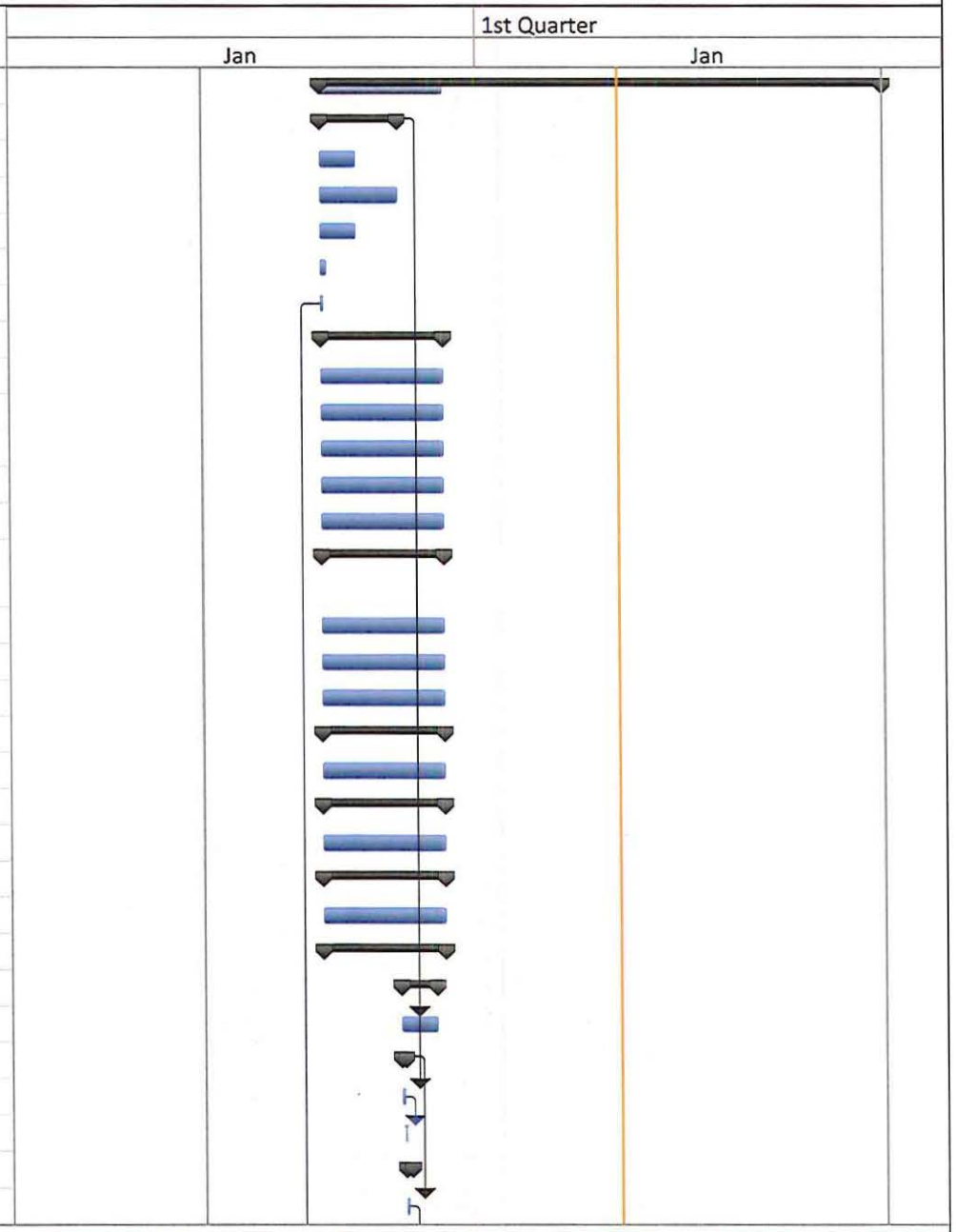
ID	Task Name	Cost
1	**Nevada CT Dismantlement**	**$4,385,836.20**
2	**Pre-Demolition Activities**	**$892,760.32**
3	Detailed Planning & Hire Owner's Engineer	$104,441.28
4	Detailed Site Characterization Study	$610,335.44
5	Hire Demolition general Contractor	$167,184.00
6	KCP&L Prepares Unit for Dismantlement	$10,799.60
7	Demolition Contractor Mobilizes on Sit	$0.00
8	**KCP&L Overhead during Dismantlement**	**$799,319.60**
9	KCP&L Project Manager	$127,018.00
10	KCP&L Administrative Support	$46,969.60
11	KCP&L Engineer	$208,772.00
12	Owners Engineer Project Manager	$62,320.00
13	Owners Engineer - Engineer	$354,240.00
14	**Demolition Contractor Overhead during Dismantlement**	**$435,715.20**
15	Demolition Contractor Project Manager	$123,278.80
16	Demolition Contractor Safety Manager	$109,765.20
17	Demolition Contractor Superintendent	$202,671.20
18	**Demolition Contractor Equipment Rental Cost**	**$741,903.20**
19	Equipment Rental	$741,903.20
20	**Demolition Contractor Consumables**	**$740,181.20**
21	Consumables	$740,181.20
22	**Scrap Crews**	**$194,864.80**
23	Crew to Handle Scrap Material(s)	$194,864.80
24	**Dismantlement**	**$515,571.88**
25	**Electrical**	**$107,481.60**
26	Electrical Demolition of Equipment	$107,481.60
27	**Fuel Oil System**	**$8,445.28**
28	Remove Above Ground Fuel Oil Piping	$3,071.20
29	Fuel Skids	$5,374.08
30	**Lube Oil System**	**$17,913.60**
31	Lube Oil Piping	$5,374.08
32	Lube Oil Pumps	$5,374.08
33	Lube Oil Tanks	$7,165.44
34	**Fire Protection**	**$26,870.40**
35	Fire Protection Piping	$10,748.16
36	Firewater Tank	$8,956.80
37	CO2 Storage Tank	$7,165.44
38	**Miscellaneous Piping**	**$25,079.04**
39	Exhaust Frame Cooling Piping	$7,165.44
40	CT Air Processing Piping	$8,956.80
41	Inlet Air Heating Piping	$8,956.80
42	**Generator**	**$10,748.16**
43	Generator	$10,748.16
44	**Combustion Turbine**	**$93,150.72**

Nevada Dismantlement

ID	Task Name	Cost
45	Inlet Heater	$5,374.08
46	Inlet duct	$10,748.16
47	Exhaust duct	$14,330.88
48	Combustion Turbine	$28,661.76
49	Combustion Turbine Foundation	$16,122.24
50	Enclosure	$17,913.60
51	**CEMS**	**$14,330.88**
52	CEMS Building	$7,165.44
53	CEMS Building Foundation	$7,165.44
54	**Stack**	**$26,870.40**
55	Stacks	$26,870.40
56	**Site Buildings**	**$8,956.80**
57	Remove Site Buildings	$8,956.80
58	**Site Prep**	**$175,725.00**
59	Final Grading and Drainage	$175,725.00
60	**Post Dismantlement Activities**	**$65,520.00**
61	Post Dismantlement Activities	$65,520.00

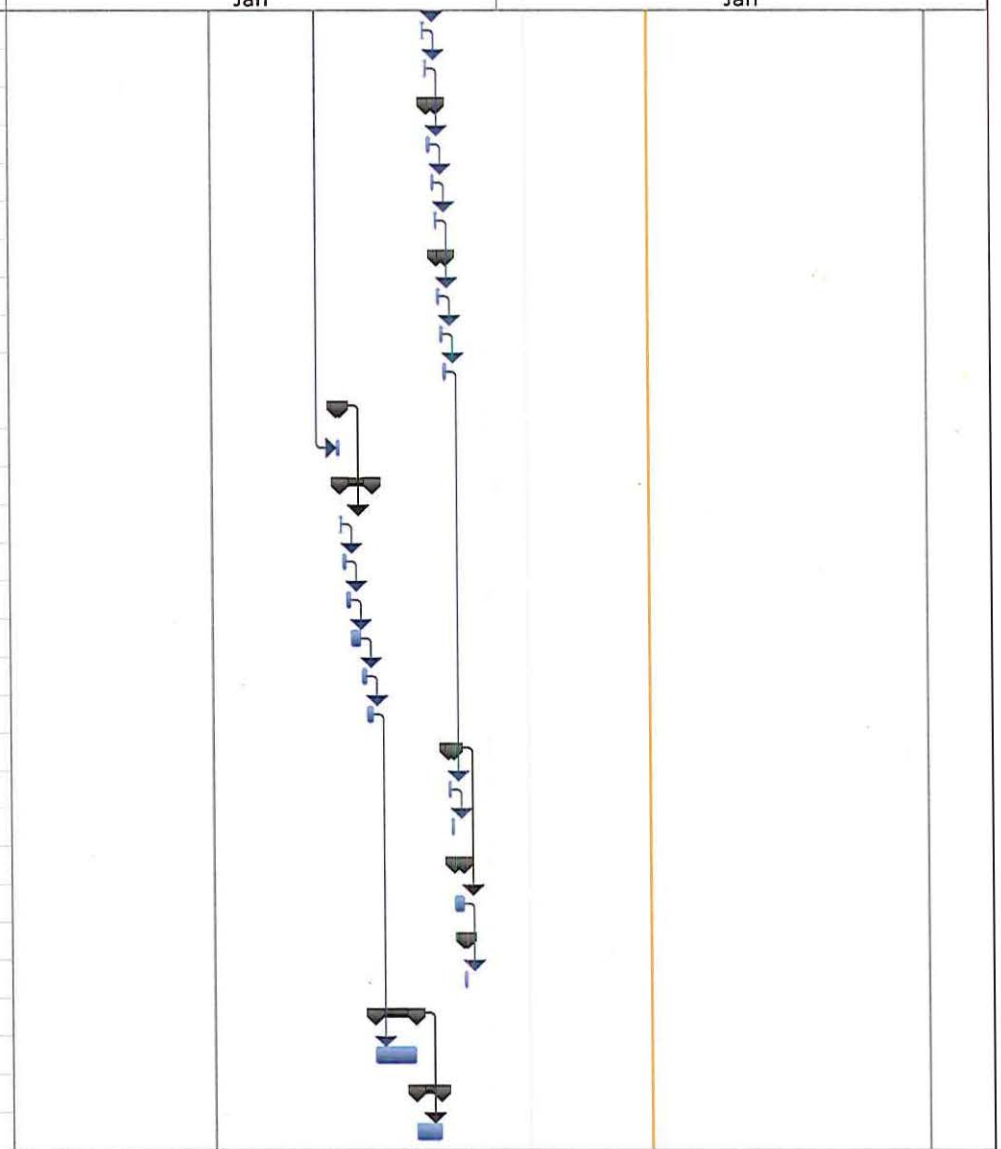
Nevada Dismantlement

ID	Task Name	Duration
1	**Nevada CT Dismantlement**	**944 days**
2	**Pre-Demolition Activities**	**130 days**
3	Detailed Planning & Hire Owner's Engineer	3 mons
4	Detailed Site Characterization Study	130 days
5	Hire Demolition general Contractor	3 mons
6	KCP&L Prepares Unit for Dismantlement	2 wks
7	Demolition Contractor Mobilizes on Sit	5 days
8	**KCP&L Overhead during Dismantlement**	**205 days**
9	KCP&L Project Manager	205 days
10	KCP&L Administrative Support	205 days
11	KCP&L Engineer	205 days
12	Owners Engineer Project Manager	205 days
13	Owners Engineer - Engineer	205 days
14	**Demolition Contractor Overhead during Dismantlement**	**205 days**
15	Demolition Contractor Project Manager	205 days
16	Demolition Contractor Safety Manager	205 days
17	Demolition Contractor Superintendent	205 days
18	**Demolition Contractor Equipment Rental Cost**	**205 days**
19	Equipment Rental	205 days
20	**Demolition Contractor Consumables**	**205 days**
21	Consumables	205 days
22	**Scrap Crews**	**205 days**
23	Crew to Handle Scrap Material(s)	205 days
24	**Dismantlement**	**205 days**
25	**Electrical**	**60 days**
26	Electrical Demolition of Equipment	60 days
27	**Fuel Oil System**	**8 days**
28	Remove Above Ground Fuel Oil Piping	5 days
29	Fuel Skids	3 days
30	**Lube Oil System**	**10 days**
31	Lube Oil Piping	3 days



Nevada Dismantlement

ID	Task Name	Duration
32	Lube Oil Pumps	3 days
33	Lube Oil Tanks	4 days
34	**Fire Protection**	**15 days**
35	Fire Protection Piping	6 days
36	Firewater Tank	5 days
37	CO2 Storage Tank	4 days
38	**Miscellaneous Piping**	**14 days**
39	Exhaust Frame Cooling Piping	4 days
40	CT Air Processing Piping	5 days
41	Inlet Air Heating Piping	5 days
42	**Generator**	**6 days**
43	Generator	6 days
44	**Combustion Turbine**	**52 days**
45	Inlet Heater	3 days
46	Inlet duct	6 days
47	Exhaust duct	8 days
48	Combustion Turbine	16 days
49	Combustion Turbine Foundation	9 days
50	Enclosure	10 days
51	**CEMS**	**8 days**
52	CEMS Building	4 days
53	CEMS Building Foundation	4 days
54	**Stack**	**15 days**
55	Stacks	15 days
56	**Site Buildings**	**5 days**
57	Remove Site Buildings	5 days
58	**Site Prep**	**65 days**
59	Final Grading and Drainage	65 days
60	**Post Dismantlement Activities**	**40 days**
61	Post Dismantlement Activities	40 days



RALPH GREEN UNIT 3

RALPH GREEN STATION

The Ralph Green Generating Station consists of a single gas-fired combustion turbine generator set.

Ralph Green has an SPP-accredited unit rating of 71.5 MW and was placed into service in 1981. The unit is comprised of a GE Model MS7001E combustion turbine with a generator step-up transformer and auxiliary power transformer.

The following are the major systems and equipment that were included in the retirement and dismantlement of the Ralph Green Generating Station.

1. Combustion turbine generator sets and auxiliaries.
2. Generation step-up and auxiliary transformers.
3. Outdoor switchgear.
4. Exhaust stack.
5. Administrative/Maintenance building.
6. Water treatment equipment.
7. Service/Instrument air compressors.
8. Demineralized water tank.

Ralph Green Retirement

Owner Costs				
	Pre-Retirement Activities		$43,834	
	Retirement Activities		$128,593	
	Post-Retirement Activities		$45,152	
Owner Direct Total			$217,579	
Owner Internal Costs		5.00%	$10,879	
Owner Contingency:		25.00%	$57,114	
Ralph Green Retirement Opinion of Probable Cost:				$285,572.44
Activities Required by Permit or Regulation				
	Ash Pond Landfill Closure		$81,385	
	Activities Required by Permit or Regulation:			$81,385

Ralph Green Retirement

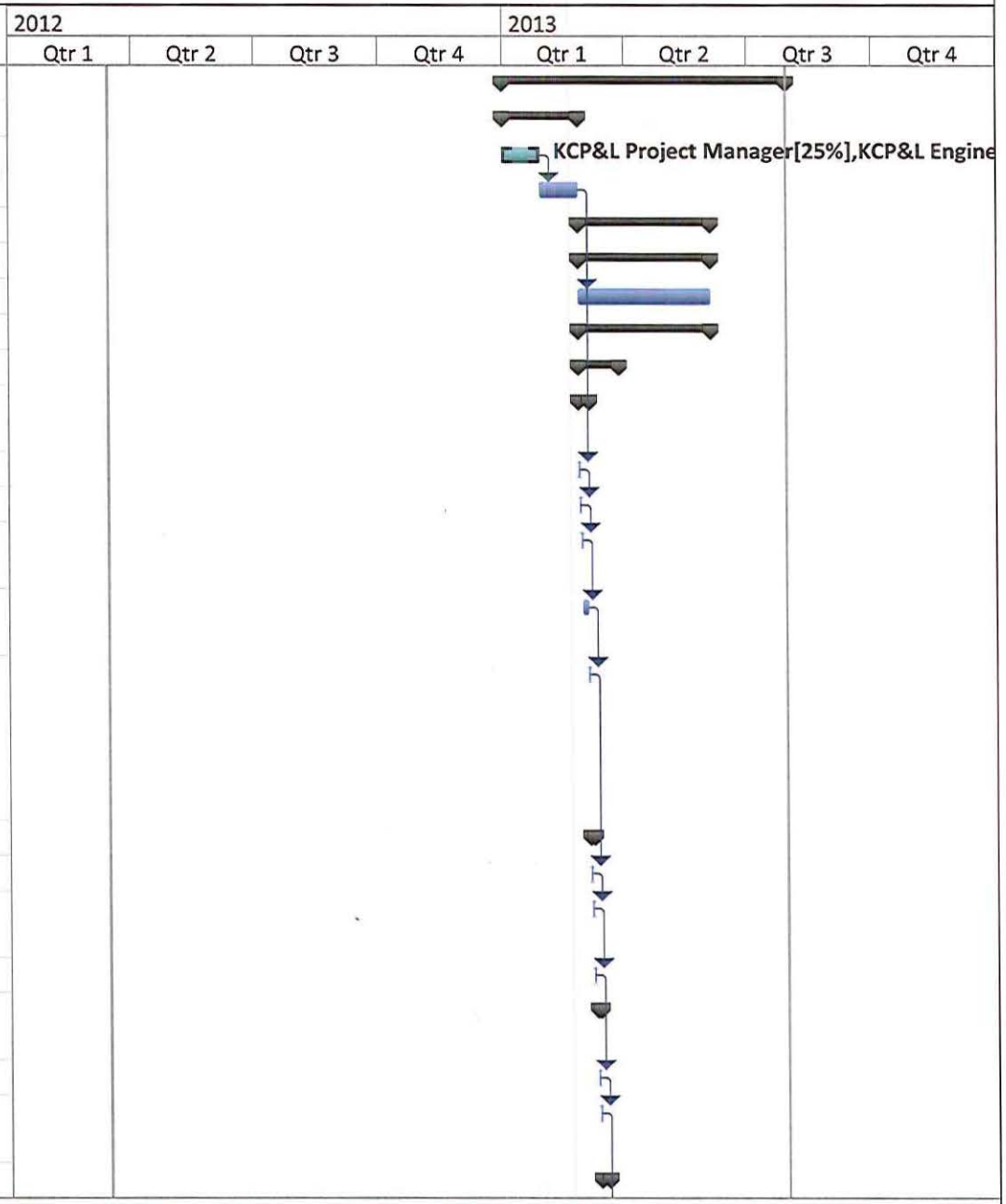
ID	Task Name	Cost
1	**Ralph Green Retirement**	**$217,579.72**
2	**Pre-Retirement Activities**	**$43,834.00**
3	Permitting Review	$23,466.00
4	Develop Detailed Retirement Plan	$20,368.00
5	**Retirement**	**$128,593.72**
6	**Project Management During Retirement**	**$56,141.40**
7	Project Management During Retirement	$56,141.40
8	**Retirement Activities**	**$72,452.32**
9	**Electrical**	**$19,652.16**
10	**Medium and Low Voltage Drawout Switchgear**	**$5,359.68**
11	De-energize all buses at the source.	$893.28
12	Open all circuit breakers.	$893.28
13	Rack all circuit breakers into the fully withdrawn, disconnected position.	$893.28
14	Verify that the closing/tripping springs are discharged.	$1,786.56
15	De-energize control power and auxiliary power circuits of each circuit breaker at the source and by opening control power circuit breakers or removing fuses in each breaker cubicle.	$893.28
16	**Motor Control Centers**	**$2,679.84**
17	De-energize all buses at the source.	$893.28
18	Open all circuit breakers and disconnect switches.	$893.28
19	Remove all fuses in control circuits.	$893.28
20	**Low-voltage Switchboards and Panelboards**	**$1,786.56**
21	De-energize all buses at the source.	$893.28
22	Open all circuit breakers and disconnect switches.	$893.28
23	**Oil-Filled Power Transformers**	**$3,573.12**
24	De-energize all buses at the source.	$893.28
25	Open all circuit breakers and disconnect switches.	$893.28
26	De-energize all buses at the source.	$893.28
27	Open all circuit breakers and disconnect switches.	$893.28
28	**Dry-type Power Transformers**	**$1,786.56**
29	De-energize all transformer primaries and verify that the secondary is de-energized.	$893.28
30	De-energize all low-voltage AC or DC power sources for space heaters, cooling equipment, controls, etc. at the source and open circuit breakers or remove fuses at transformer end.	$893.28
31	**Motors**	**$4,466.40**
32	De-energize all primary power at the source.	$893.28
33	De-energize all low-voltage power sources for space heaters or other auxiliary equipment at the source.	$893.28
34	Drain lube oil system (if applicable) and dispose of oil.	$2,679.84
35	**Administration/Maintenance Building**	**$7,235.60**
36	Secure Administration/Maintenance Building	$7,235.60
37	**Fuel Gas System**	**$10,783.04**

Ralph Green Retirement

ID	Task Name	Cost
38	Isolate Fuel Gas System	$3,907.44
39	Vent Fuel Gas Piping and Equipment	$2,528.16
40	Open and Vent Knock-Out Drum	$861.84
41	Drain, Open and Vent the Drain Tank	$861.84
42	Empty the Coalescing Filter	$1,761.92
43	Open and Vent Equipment on the CT Gas Valve Module	$861.84
44	**Lube Oil Cooling Water System**	**$2,585.52**
45	Open and Drain the Water Side of the Lube Oil Coolers	$1,723.68
46	Open and Vent the Coolers and Expansion Tank	$861.84
47	**Oily Drain Tank**	**$3,954.00**
48	Open and Pump Out the Oily Drain Tank	$3,954.00
49	**Wash Water Skid**	**$2,585.52**
50	Open and Drain the Detergent Tank	$861.84
51	Open and Drain the Demineralized Water Tank	$861.84
52	Empty the Demineralized Water Tank	$861.84
53	**Compressed Air**	**$1,723.68**
54	Empty Dessiccant Air Dryers and Vent	$861.84
55	Open and Vent the Air Reciever	$861.84
56	**Miscelleaneous Piping**	**$3,447.36**
57	Open and Vent the Exhaust Frame Cooling Piping	$861.84
58	Open and Vent the CT Air Processing Piping	$861.84
59	Open and Vent the Inlet Air Heating Piping	$861.84
60	Open and Vent the CT Air Processing Piping	$861.84
61	**Fire Protection Piping**	**$3,428.24**
62	Empty the CO2 Storage Tank	$2,566.40
63	Open and Vent the Fire Protection Piping	$861.84
64	**Lube Oil System**	**$7,718.32**
65	Empty and Remove from Site the Lubricating Oil	$5,132.80
66	Drain Lubricating Oil Piping	$1,723.68
67	Open and Vent Lubricating Oil Piping	$861.84
68	**Water Treatment**	**$9,338.88**
69	Drain All Tanks and Vessels	$1,723.68
70	Remove Resin from Vessels	$2,585.52
71	Remove Chemicals	$2,585.52
72	Open and Vent Vessels	$861.84
73	Open and Vent the 2 Water Storage Tanks	$861.84
74	Clean Neutralization Basin	$720.48
75	**Post Retirement Closure Activity**	**$45,152.00**
76	Post Retirement Closure Activity	$45,152.00

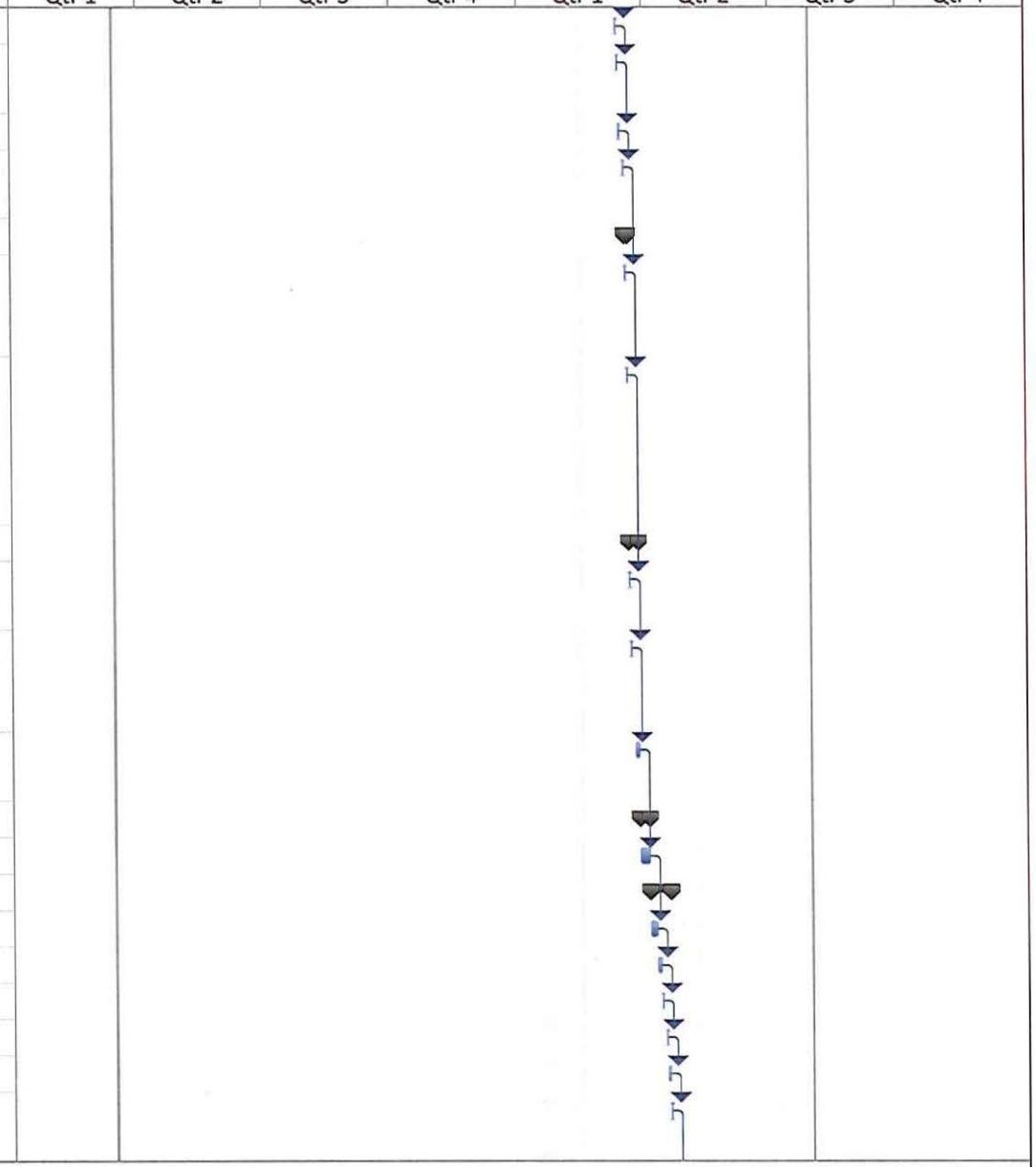
Ralph Green Retirement

ID	Task Name	Duration
1	**Ralph Green Retirement**	**150 days**
2	**Pre-Retirement Activities**	**40 days**
3	Permitting Review	20 days
4	Develop Detailed Retirement Plan	20 days
5	**Retirement**	**70 days**
6	**Project Management During Retirement**	**70 days**
7	Project Management During Retirement	70 days
8	**Retirement Activities**	**70 days**
9	**Electrical**	**22 days**
10	**Medium and Low Voltage Drawout Switchgear**	**6 days**
11	De-energize all buses at the source.	1 day
12	Open all circuit breakers.	1 day
13	Rack all circuit breakers into the fully withdrawn, disconnected	1 day
14	Verify that the closing/tripping springs are discharged.	2 days
15	De-energize control power and auxiliary power circuits of each circuit breaker at the source and by opening control power circuit breakers or removing fuses in each	1 day
16	**Motor Control Centers**	**3 days**
17	De-energize all buses at the source.	1 day
18	Open all circuit breakers and disconnect switches.	1 day
19	Remove all fuses in control circuits.	1 day
20	**Low-voltage Switchboards and Panelboards**	**2 days**
21	De-energize all buses at the source.	1 day
22	Open all circuit breakers and disconnect switches.	1 day
23	**Oil-Filled Power Transformers**	**4 days**



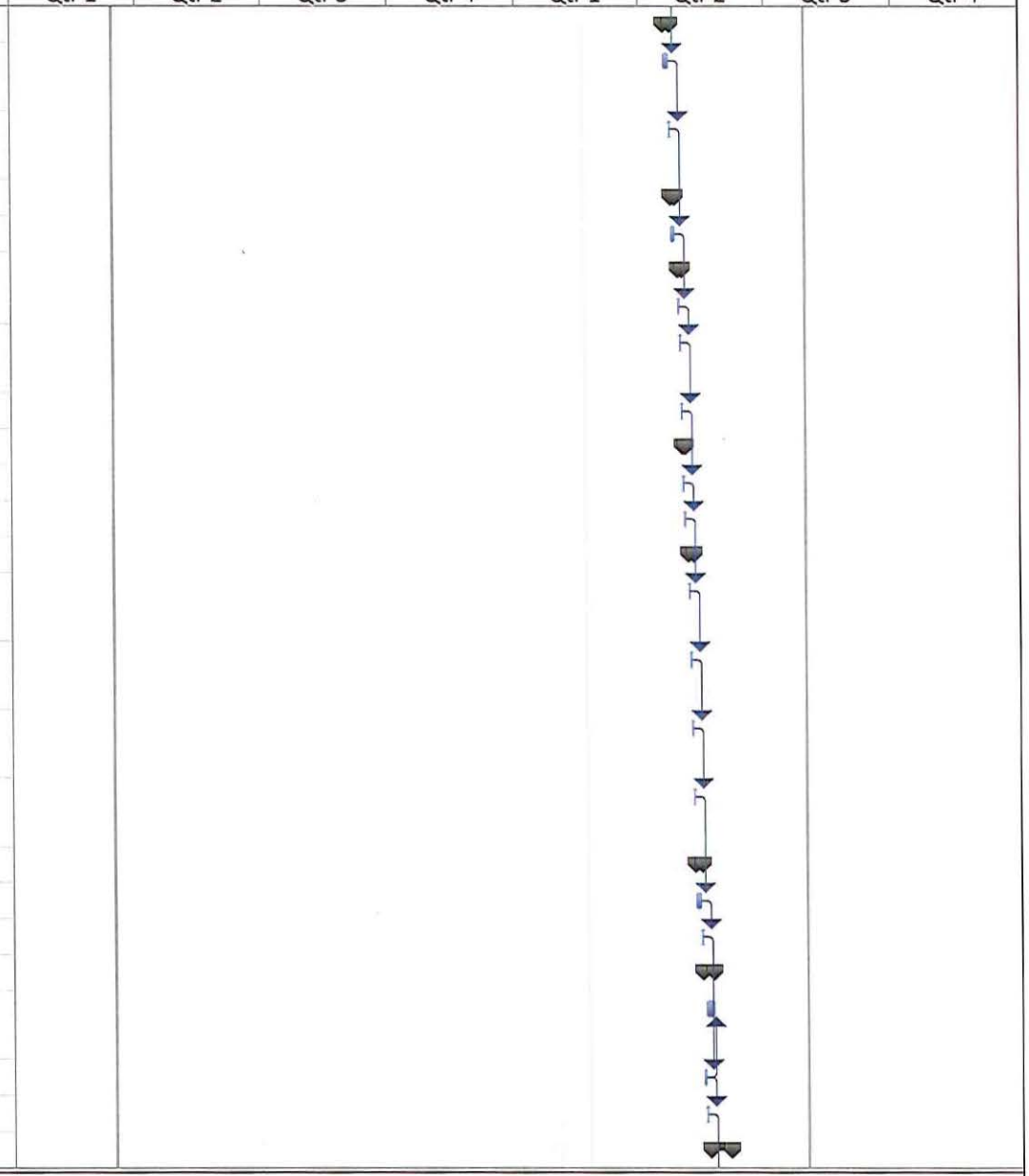
Ralph Green Retirement

ID	Task Name	Duration
24	De-energize all buses at the source.	1 day
25	Open all circuit breakers and disconnect switches.	1 day
26	De-energize all buses at the source.	1 day
27	Open all circuit breakers and disconnect switches.	1 day
28	**Dry-type Power Transformers**	**2 days**
29	De-energize all transformer primaries and verify that the secondary is de-energized.	1 day
30	De-energize all low-voltage AC or DC power sources for space heaters, cooling equipment, controls, etc. at the source and open circuit breakers or remove fuses at transformer end.	1 day
31	**Motors**	**5 days**
32	De-energize all primary power at the source.	1 day
33	De-energize all low-voltage power sources for space heaters or other auxiliary equipment at the source.	1 day
34	Drain lube oil system (if applicable) and dispose of oil.	3 days
35	**Administration/Maintenance Building**	**5 days**
36	Secure Administration/Maintenance Bu	5 days
37	**Fuel Gas System**	**11 days**
38	Isolate Fuel Gas System	3 days
39	Vent Fuel Gas Piping and Equipment	3 days
40	Open and Vent Knock-Out Drum	1 day
41	Drain, Open and Vent the Drain Tank	1 day
42	Empty the Coalescing Filter	2 days
43	Open and Vent Equipment on the CT Gas Valve Module	1 day



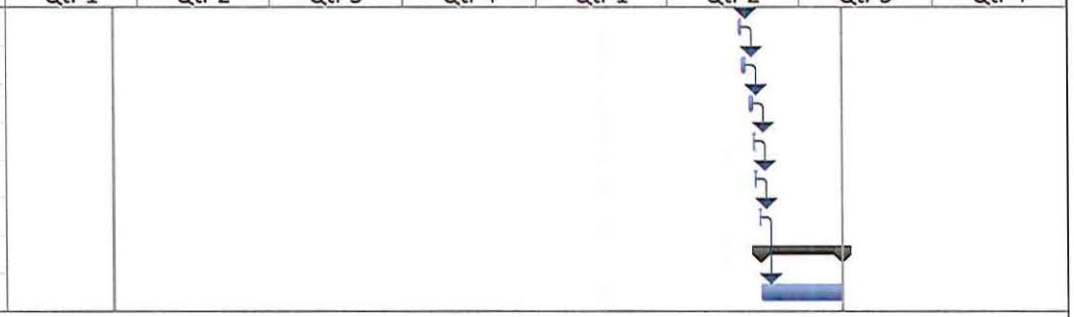
Ralph Green Retirement

ID	Task Name	Duration
44	**Lube Oil Cooling Water System**	**3 days**
45	Open and Drain the Water Side of the Lube Oil Coolers	2 days
46	Open and Vent the Coolers and Expansion Tank	1 day
47	**Oily Drain Tank**	**3 days**
48	Open and Pump Out the Oily Drain Tank	3 days
49	**Wash Water Skid**	**3 days**
50	Open and Drain the Detergent Tank	1 day
51	Open and Drain the Demineralized Water Tank	1 day
52	Empty the Demineralized Water Tank	1 day
53	**Compressed Air**	**2 days**
54	Empty Dessiccant Air Dryers and Vent	1 day
55	Open and Vent the Air Reciever	1 day
56	**Miscelleaneous Piping**	**4 days**
57	Open and Vent the Exhaust Frame Cooling Piping	1 day
58	Open and Vent the CT Air Processing Piping	1 day
59	Open and Vent the Inlet Air Heating Piping	1 day
60	Open and Vent the CT Air Processing Piping	1 day
61	**Fire Protection Piping**	**3 days**
62	Empty the CO2 Storage Tank	2 days
63	Open and Vent the Fire Protection Pipin	1 day
64	**Lube Oil System**	**6 days**
65	Empty and Remove from Site the Lubricating Oil	4 days
66	Drain Lubricating Oil Piping	2 days
67	Open and Vent Lubricating Oil Piping	1 day
68	**Water Treatment**	**11 days**



Ralph Green Retirement

ID	Task Name	Duration
69	Drain All Tanks and Vessels	2 days
70	Remove Resin from Vessels	3 days
71	Remove Chemicals	3 days
72	Open and Vent Vessels	1 day
73	Open and Vent the 2 Water Storage Tar	1 day
74	Clean Neutralization Basin	1 day
75	**Post Retirement Closure Activity**	**40 days**
76	Post Retirement Closure Activity	40 days



Ralph Green Dismantlement

Owner Costs				
Pre-Dismantlement Activities			$892,760	
Overhead During Dismantlement			$748,631	
Post-Dismantlement Activities			$32,760	
Owner Costs Total*				$1,674,151
Demolition General Contractor (DGC) Costs				
Site Management			$408,084	
Equipment Rental			$694,855	
Consummables			$693,242	
Scrap Crew(s)			$182,507	
Dismantlement			$542,291	
Contractor Direct Cost*		$2,520,979		
Contractor Allowances				
DGC Insurance	2.00%		$50,420	
Contingency/Profit	15.00%		$385,710	
Performance Bond	2.00%		$59,142.17	
Contractor Costs Total:				$3,016,251
Total:				$4,690,402
Owner Internal Costs:	5.00%			$234,520
Owner Contingency:	25.00%			$1,231,230
Ralph Green Dismantlement Opinion of Probable Cost:				$6,156,152

*Owner Costs Total + Contractor Direct Costs = Manpower Loaded Schedule Total w/o Contractor Allowances
= $4,195,130

Ralph Green Dismantlement

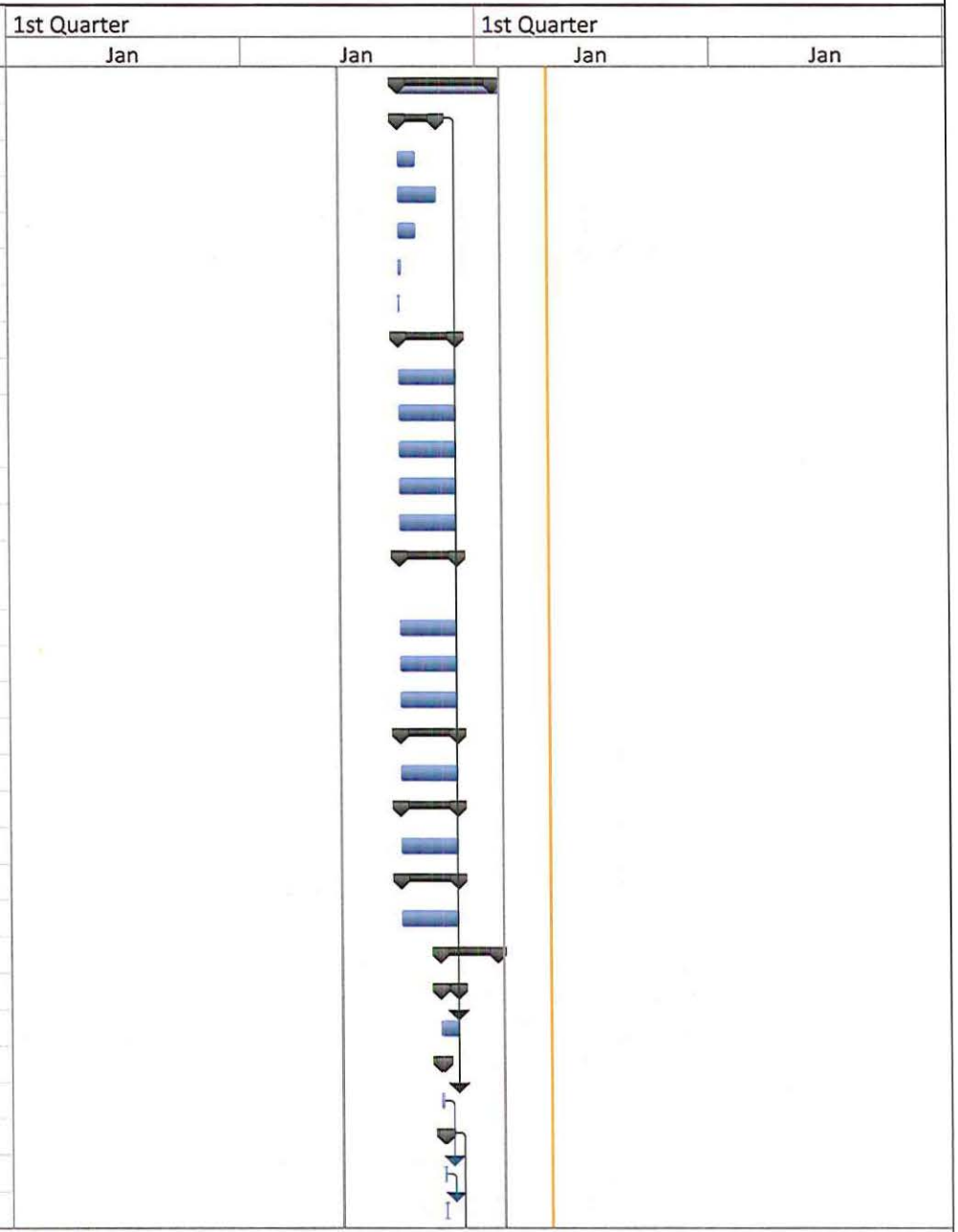
ID	Task Name	Cost
1	**Ralph Green Dismantlement**	**$4,195,133.68**
2	**Pre-Demolition Activities**	**$892,760.32**
3	Detailed Planning & Hire Owner's Engineer	$104,441.28
4	Detailed Site Characterization Study	$610,335.44
5	Hire Demolition general Contractor	$167,184.00
6	KCP&L Prepares Unit for Dismantlement	$10,799.60
7	Demolition Contractor Mobilizes on Sit	$0.00
8	**KCP&L Overhead during Dismantlement**	**$748,631.04**
9	KCP&L Project Manager	$118,963.20
10	KCP&L Administrative Support	$43,991.04
11	KCP&L Engineer	$195,532.80
12	Owners Engineer Project Manager	$58,368.00
13	Owners Engineer - Engineer	$331,776.00
14	**Demolition Contractor Overhead during Dismantlement**	**$408,084.48**
15	Demolition Contractor Project Manager	$115,461.12
16	Demolition Contractor Safety Manager	$102,804.48
17	Demolition Contractor Superintendent	$189,818.88
18	**Demolition Contractor Equipment Rental Cost**	**$694,855.68**
19	Equipment Rental	$694,855.68
20	**Demolition Contractor Consumables**	**$693,242.88**
21	Consumables	$693,242.88
22	**Scrap Crews**	**$182,507.52**
23	Crew to Handle Scrap Material(s)	$182,507.52
24	**Dismantlement**	**$542,291.76**
25	**Electrical**	**$107,481.60**
26	Electrical Demolition of Equipment	$107,481.60
27	**Buildings**	**$17,913.60**
28	Remove Administration/Maintenance Building	$17,913.60
29	**Fuel Gas System**	**$8,445.28**
30	Remove all above grade fuel gas piping.	$3,071.20
31	Gas Filter Skid	$5,374.08
32	**Lube Oil System**	**$17,913.60**
33	Lube Oil Piping	$5,374.08
34	Lube Oil Pumps	$5,374.08
35	Lube Oil Tanks	$7,165.44
36	**Compressed Air System**	**$23,287.68**
37	Compressed Air Piping	$5,374.08
38	Compressors	$8,956.80
39	Air Receiver	$3,582.72
40	Dryer	$5,374.08
41	**Fire Protection**	**$26,870.40**
42	Fire Protection Piping	$10,748.16
43	Firewater Tank	$8,956.80
44	CO2 Storage Tank	$7,165.44

Ralph Green Dismantlement

ID	Task Name	Cost
45	**Wash Water Skid**	**$14,330.88**
46	Detergent Tank	$7,165.44
47	Demineralized Water Tank	$7,165.44
48	**Miscellaneous Piping**	**$25,079.04**
49	Exhaust Frame Cooling Piping	$7,165.44
50	CT Air Processing Piping	$8,956.80
51	Inlet Air Heating Piping	$8,956.80
52	**Generator**	**$0.00**
53	Generator	$0.00
54	**Combustion Turbine**	**$93,150.72**
55	Inlet Heater	$5,374.08
56	Inlet duct	$10,748.16
57	Exhaust duct	$14,330.88
58	Combustion Turbine	$28,661.76
59	Combustion Turbine Foundation	$16,122.24
60	Enclosure	$17,913.60
61	**CEMS**	**$14,330.88**
62	CEMS Building	$7,165.44
63	CEMS Building Foundation	$7,165.44
64	**Stack**	**$26,870.40**
65	Stack	$26,870.40
66	**Demineralizer**	**$23,287.68**
67	Remove demineralizer vessels	$3,582.72
68	Remove acid and caustic tanks	$7,165.44
69	Remove hot water tank	$3,582.72
70	Remove misc. demineralizer piping.	$3,582.72
71	Remove 2 Demin. Water Storage Tanks	$5,374.08
72	**Site Prep**	**$143,330.00**
73	Final Grading and Drainage	$143,330.00
74	**Post Dismantlement Activities**	**$32,760.00**
75	Post Dismantlement Activities	$32,760.00

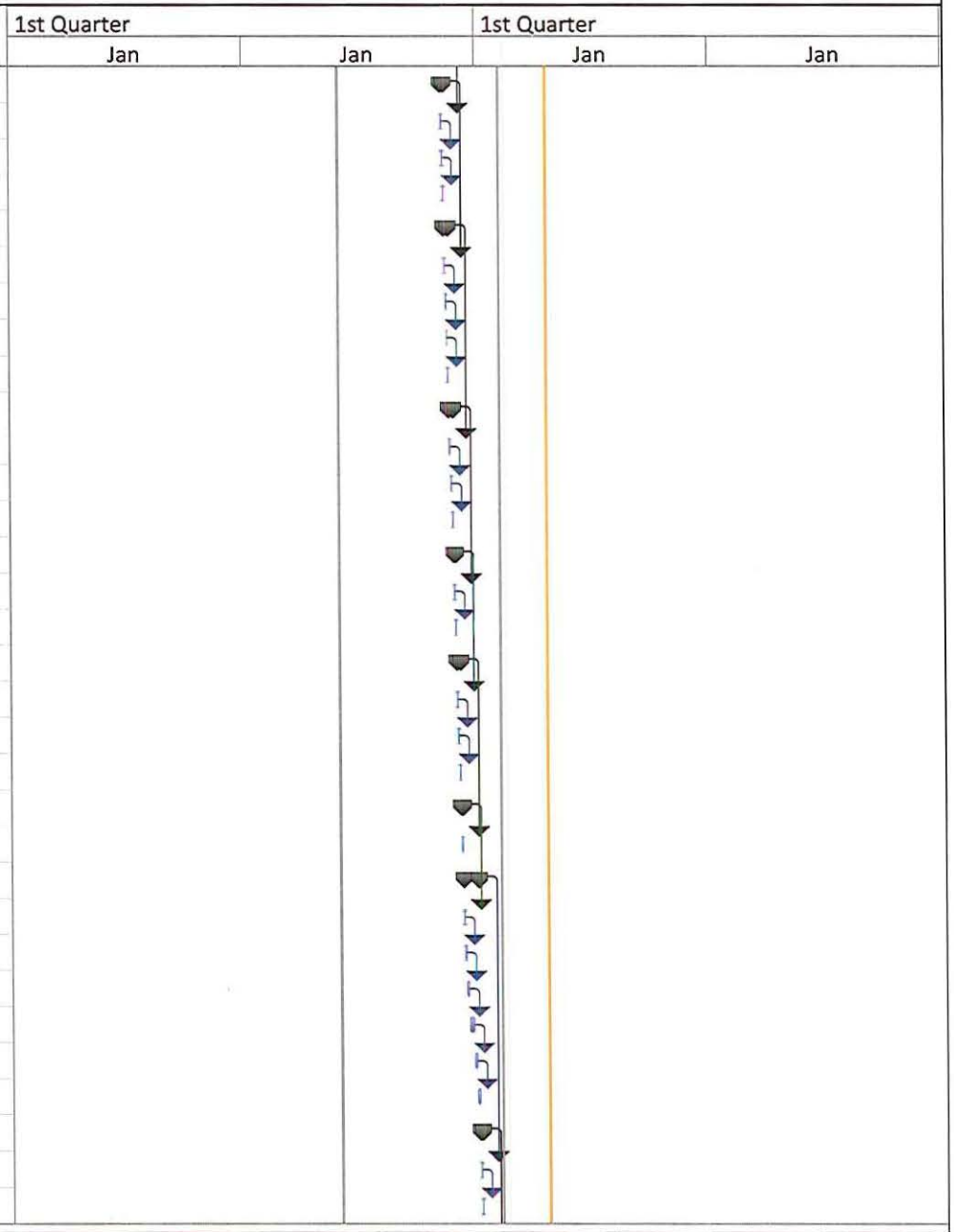
Ralph Green Dismantlement

ID	Task Name	Duration
1	**Ralph Green Dismantlement**	**319 days**
2	**Pre-Demolition Activities**	**130 days**
3	Detailed Planning & Hire Owner's Engineer	3 mons
4	Detailed Site Characterization Study	130 days
5	Hire Demolition general Contractor	3 mons
6	KCP&L Prepares Unit for Dismantlement	2 wks
7	Demolition Contractor Mobilizes on Sit	5 days
8	**KCP&L Overhead during Dismantlement**	**192 days**
9	KCP&L Project Manager	192 days
10	KCP&L Administrative Support	192 days
11	KCP&L Engineer	192 days
12	Owners Engineer Project Manager	192 days
13	Owners Engineer - Engineer	192 days
14	**Demolition Contractor Overhead during Dismantlement**	**192 days**
15	Demolition Contractor Project Manager	192 days
16	Demolition Contractor Safety Manager	192 days
17	Demolition Contractor Superintendent	192 days
18	**Demolition Contractor Equipment Rental Cost**	**192 days**
19	Equipment Rental	192 days
20	**Demolition Contractor Consumables**	**192 days**
21	Consumables	192 days
22	**Scrap Crews**	**192 days**
23	Crew to Handle Scrap Material(s)	192 days
24	**Dismantlement**	**192 days**
25	**Electrical**	**60 days**
26	Electrical Demolition of Equipment	60 days
27	**Buildings**	**10 days**
28	Remove Administration/Maintenance Building	10 days
29	**Fuel Gas System**	**8 days**
30	Remove all above grade fuel gas piping.	5 days
31	Gas Filter Skid	3 days



Ralph Green Dismantlement

ID	Task Name	Duration
32	**Lube Oil System**	**10 days**
33	Lube Oil Piping	3 days
34	Lube Oil Pumps	3 days
35	Lube Oil Tanks	4 days
36	**Compressed Air System**	**13 days**
37	Compressed Air Piping	3 days
38	Compressors	5 days
39	Air Receiver	2 days
40	Dryer	3 days
41	**Fire Protection**	**15 days**
42	Fire Protection Piping	6 days
43	Firewater Tank	5 days
44	CO2 Storage Tank	4 days
45	**Wash Water Skid**	**8 days**
46	Detergent Tank	4 days
47	Demineralized Water Tank	4 days
48	**Miscellaneous Piping**	**14 days**
49	Exhaust Frame Cooling Piping	4 days
50	CT Air Processing Piping	5 days
51	Inlet Air Heating Piping	5 days
52	**Generator**	**6 days**
53	Generator	6 days
54	**Combustion Turbine**	**52 days**
55	Inlet Heater	3 days
56	Inlet duct	6 days
57	Exhaust duct	8 days
58	Combustion Turbine	16 days
59	Combustion Turbine Foundation	9 days
60	Enclosure	10 days
61	**CEMS**	**8 days**
62	CEMS Building	4 days
63	CEMS Building Foundation	4 days



Ralph Green Dismantlement

ID	Task Name	Duration	1st Quarter		1st Quarter	
			Jan	Jan	Jan	Jan
64	**Stack**	**15 days**				
65	Stack	15 days				
66	**Demineralizer**	**13 days**				
67	Remove demineralizer vessels	2 days				
68	Remove acid and caustic tanks	4 days				
69	Remove hot water tank	2 days				
70	Remove misc. demineralizer piping.	2 days				
71	Remove 2 Demin. Water Storage Tanks	3 days				
72	**Site Prep**	**20 days**				
73	Final Grading and Drainage	20 days				
74	**Post Dismantlement Activities**	**20 days**				
75	Post Dismantlement Activities	20 days				

LAKE ROAD

LAKE ROAD STATION

The Lake Road Generating Station is a multi-unit facility that generates electricity from four steam turbine generators that receive steam from seven different boilers. These boilers burn either gas, distillate, or coal. These same boilers also produce steam that is sold to local steam customers. Lake Road also includes three combustion turbines that fire distillate (CTGs 5, 6, and 7) or natural gas (CTG 5).

Lake Road Boilers 1 and 2 are both package boilers rated at 85,000 lb/hr each. These boilers fire either natural gas or distillate and were placed into service in 1962.

Lake Road Boiler 3 is rated at 130,000 lb/hr, fires natural gas, and was placed into service in 1936.

Lake Road Boiler 4 is rated at 200,000 lb/hr, fires either natural gas or distillate, and was placed into service in 1951.

Lake Road Boiler 5 is rated at 250,000 lb/hr, fires either natural gas or coal, and was placed into service in 1959. This boiler has a precipitator for particulate control.

Lake Road Boiler 8 is rated at 250,000 lb/hr, fires either natural gas or distillate, and was placed into service in 2006.

Lake Road 4/6 has an SPP-accredited unit rating of 99 MW and was placed into service in 1967. This unit can fire either coal (using cyclone burners) or natural gas and has an electrostatic precipitator for particulate removal. River water is used for condenser cooling.

Lake Road Turbine Generator 1 has an SPP-accredited rating of 21.7 MW and was placed into service in 1951. This unit has a condensing turbine that uses a three-cell cooling tower for heat rejection.

Lake Road Turbine Generator 2 has an SPP-accredited rating of 27.3 MW and was placed into service in 1957. This unit has a condensing turbine that uses a four-cell cooling tower for heat rejection.

Lake Road Turbine Generator 3 has an SPP-accredited rating of 11.2 MW and was placed into service in 1962.

Lake Road Combustion Turbine (CT) 5 has an SPP-accredited rating of 63 MW and was placed into service in 1973. Lake Road CT 5 is comprised of a Westinghouse Model 501B combustion turbine set with a generator step-up transformer and auxiliary power transformer.

Lake Road Combustion Turbines 6 and 7 have an SPP-accredited rating of 42.7 MW and was placed into service in 1989 and 1990, respectively. Lake Road CTs 6 and 7 are comprised of P&W Model GG4A-7 combustion turbine set with a generator step-up transformer and auxiliary power transformer.

The Lake Road fuel yard has a main car unloading facility, a fuel storage and reclaim system, and a coal crusher facility that supplies coal to the units that can fire coal.

A detailed listing of the different equipment and systems included in each unit described above can be found in the attached retirement and dismantlement schedules included in this Appendix. The following is a detailed listing of the systems and equipment that are considered common to the Lake Road facilities.

COMMON

1. Administration building.
2. Fuel yard office building.
3. Butler building.
4. Dozer building.

5. Laboratory.
6. Guard shack.
4. Warehouses.
5. Non-Potable/Fire protection water tank.
6. Wells and low side water treatment.
8. Common fuel handling equipment.
9. 900 lb and 200 lb steam header system.
10. Fire water systems.
11. Stacks.
13. Low side feedwater system.

BOILER 1

Lake Road Boiler 1 Retirement

Owner Costs			
Pre-Retirement Activities		$25,969	
Retirement Activities		$52,440	
Post-Retirement Activities		$13,282	
Owner Direct Total			$91,691
Owner Internal Costs	5.00%		$4,585
Owner Contingency:	25.00%		$24,069
Lake Road Boiler 1 Retirement Opinion of Probable Cost:			$120,344

Lake Road Boiler 1 Retirement

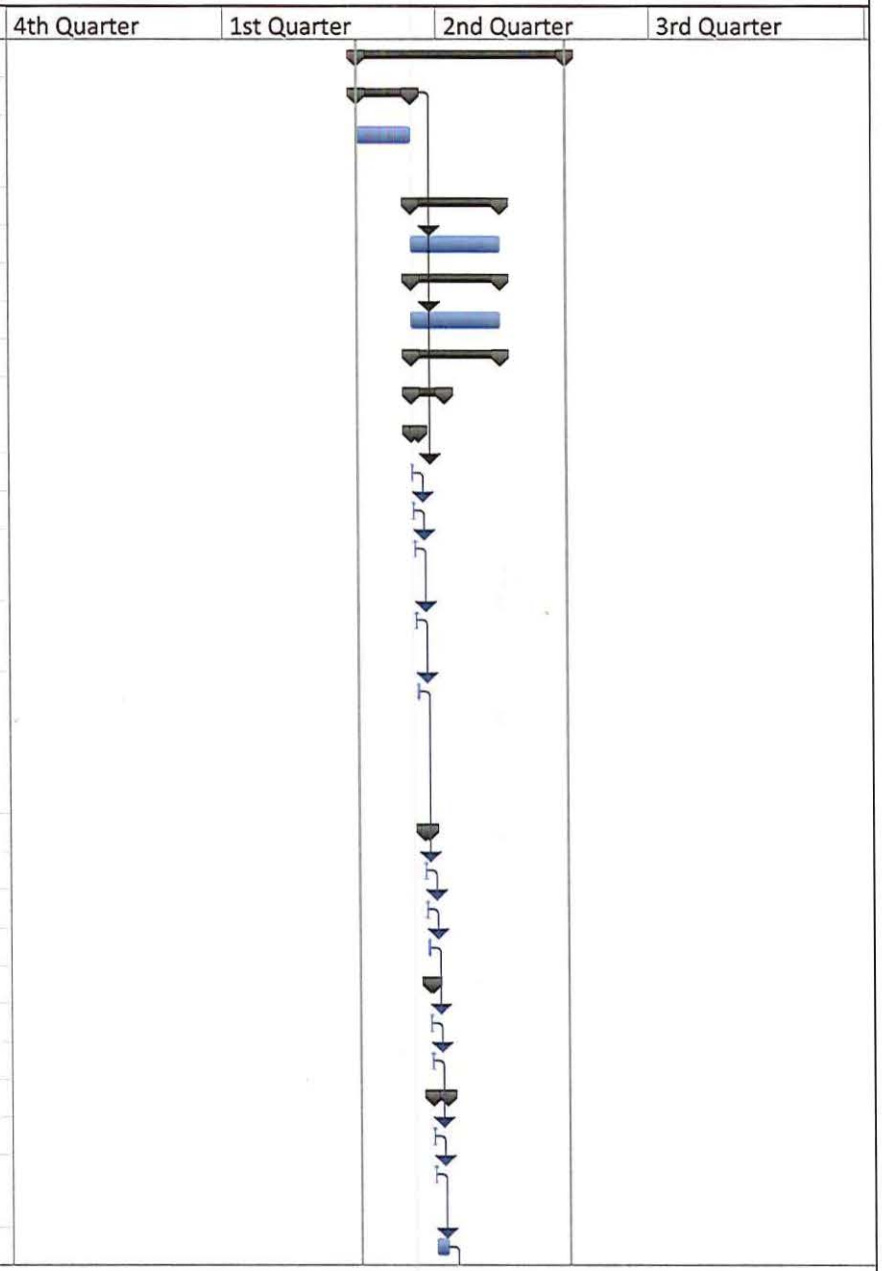
ID	Task Name	Cost
1	**Lake Road Boiler 1 Retirement**	**$91,691.28**
2	**Pre-Engineering**	**$25,969.20**
3	Permit review and engineering analysis and establish isolation points.	$25,969.20
4	**KCL&L Overhead Costs**	**$17,348.80**
5	KCP&L Retirement Manager	$17,348.80
6	**Equipment Rentals**	**$5,877.76**
7	Vacuum truck	$5,877.76
8	**Retirement**	**$29,213.52**
9	**Electrical**	**$10,037.04**
10	**Medium and Low Voltage Draw out Switchgear**	**$2,679.84**
11	De-energize all buses at the source.	$446.64
12	Open all circuit breakers.	$446.64
13	Rack all circuit breakers into the fully withdrawn, disconnected position.	$446.64
14	Verify that the closing/tripping springs are discharged.	$446.64
15	De-energize control power and auxiliary power circuits of each circuit breaker at the source and by opening control power circuit breakers or removing fuses in each breaker cubicle.	$893.28
16	**Motor Control Centers**	**$1,786.56**
17	De-energize all buses at the source.	$446.64
18	Open all circuit breakers and disconnect switches.	$446.64
19	Remove all fuses in control circuits.	$893.28
20	**Low-voltage Switchboards and Panelboards**	**$893.28**
21	De-energize all buses at the source.	$446.64
22	Open all circuit breakers and disconnect switches.	$446.64
23	**Motors**	**$4,677.36**
24	De-energize all primary power at the source.	$446.64
25	De-energize all low-voltage power sources for space heaters or other auxiliary equipment at the source.	$446.64
26	Drain lube oil system (if applicable) and dispose of oil.	$3,784.08
27	**Fuel Systems**	**$3,784.08**
28	Isolate gas lines from source, open and vent.	$1,261.36
29	Isolate fuel oil lines from source, drain, open and vent.	$2,522.72
30	**Boiler Chemical Feed**	**$1,261.36**
31	Drain all chemical feed tanks.	$1,261.36
32	**Boiler**	**$7,084.64**
33	Open boiler doors.	$880.96
34	Gas side - perform cleaning of the boiler and bottom ash system.	$4,480.00
35	Drain boiler, drum, downcomers and headers.	$842.72
36	Open drum doors.	$880.96
37	**Ductwork**	**$5,360.96**
38	Open ductwork doors.	$880.96
39	Perform extensive cleaning of the ductwork.	$4,480.00
40	**Feedwater Piping**	**$842.72**

Lake Road Boiler 1 Retirement

ID	Task Name	Cost
41	Drain water from the system.	$421.36
42	Leave open vents and drains.	$421.36
43	**Compressed Air System**	**$842.72**
44	Open vents and drains.	$842.72
45	**Post Retirement Activities**	**$13,282.00**
46	Post Retirement Activities	$13,282.00

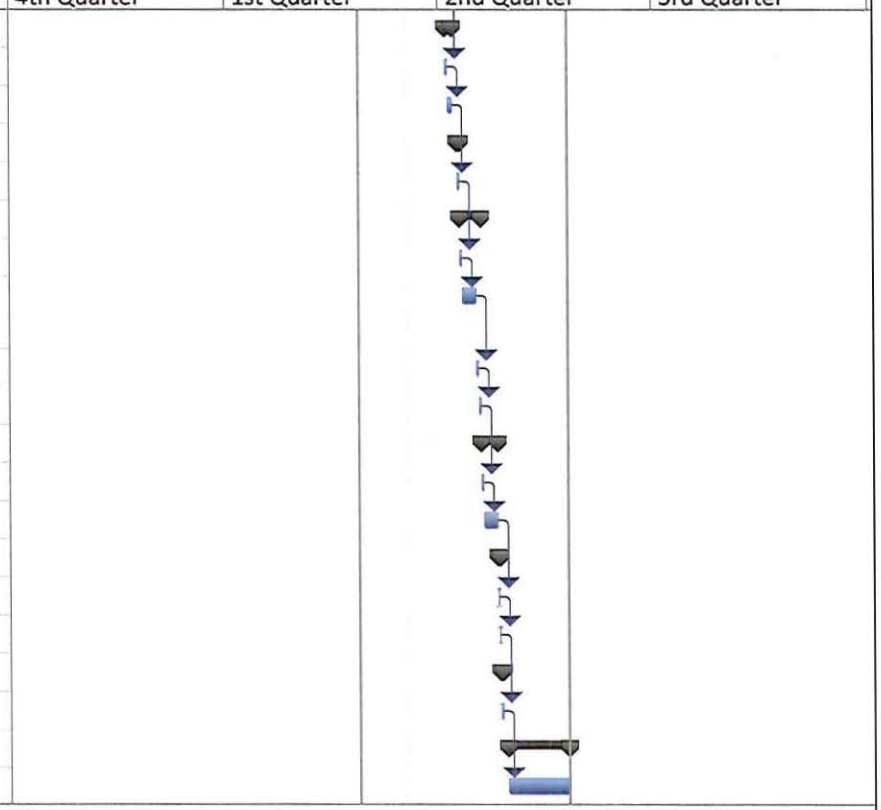
Lake Road Boiler 1 Retirement

ID	Task Name	Duration
1	**Lake Road Boiler 1 Retirement**	**65 days**
2	**Pre-Engineering**	**17 days**
3	Permit review and engineering analysis and establish isolation points.	17 days
4	**KCL&L Overhead Costs**	**28 days**
5	KCP&L Retirement Manager	28 days
6	**Equipment Rentals**	**28 days**
7	Vacuum truck	28 days
8	**Retirement**	**28 days**
9	**Electrical**	**10 days**
10	**Medium and Low Voltage Draw out Switchgear**	**3 days**
11	De-energize all buses at the source.	0.5 days
12	Open all circuit breakers.	0.5 days
13	Rack all circuit breakers into the fully withdrawn, disconnected position.	0.5 days
14	Verify that the closing/tripping springs are discharged.	0.5 days
15	De-energize control power and auxiliary power circuits of each circuit breaker at the source and by opening control power circuit breakers or removing fuses in each breaker cubicle.	1 day
16	**Motor Control Centers**	**2 days**
17	De-energize all buses at the source.	0.5 days
18	Open all circuit breakers and disconnect switches.	0.5 days
19	Remove all fuses in control circuits.	1 day
20	**Low-voltage Switchboards and Panelboards**	**1 day**
21	De-energize all buses at the source.	0.5 days
22	Open all circuit breakers and disconnect switches.	0.5 days
23	**Motors**	**4 days**
24	De-energize all primary power at the source.	0.5 days
25	De-energize all low-voltage power sources for space heaters or other auxiliary equipment at the source.	0.5 days
26	Drain lube oil system (if applicable) and dispose of oil.	3 days



Lake Road Boiler 1 Retirement

ID	Task Name	Duration
27	**Fuel Systems**	**3 days**
28	Isolate gas lines from source, open and vent.	1 day
29	Isolate fuel oil lines from source, drain, open and vent.	2 days
30	**Boiler Chemical Feed**	**1 day**
31	Drain all chemical feed tanks.	1 day
32	**Boiler**	**7 days**
33	Open boiler doors.	1 day
34	Gas side - perform cleaning of the boiler and bottom ash system.	4 days
35	Drain boiler, drum, downcomers and headers.	1 day
36	Open drum doors.	1 day
37	**Ductwork**	**5 days**
38	Open ductwork doors.	1 day
39	Perform extensive cleaning of the ductwork.	4 days
40	**Feedwater Piping**	**1 day**
41	Drain water from the system.	0.5 days
42	Leave open vents and drains.	0.5 days
43	**Compressed Air System**	**1 day**
44	Open vents and drains.	1 day
45	**Post Retirement Activities**	**20 days**
46	Post Retirement Activities	20 days



Lake Road Boiler 1 Dismantlement

Owner Costs				
Pre-Dismantlement Activities			$412,728	
Overhead During Dismantlement			$86,564	
Post-Dismantlement Activities			$16,380	
Owner Costs Total*				$515,672
Demolition General Contractor (DGC) Costs				
Site Management			$129,546	
Equipment Rental			$307,618	
Consummables			$306,904	
Scrap Crew(s)			$304,531	
Dismantlement			$493,684	
Contractor Direct Cost*		$1,542,283		
Contractor Allowances				
DGC Insurance	2.00%		$30,846	
Contingency/Profit	15.00%		$235,969	
Performance Bond	2.00%		$36,181.96	
Contractor Costs Total:				$1,845,280
Total:				$2,360,952
Owner Internal Costs:	5.00%			$118,048
Owner Contingency:	25.00%			$619,750
Lake Road Boiler 1 Dismantlement Opinion of Probable Cost:				$3,098,749

*Owner Costs Total + Contractor Direct Costs = Manpower Loaded Schedule Total w/o Contractor Allowances
= $2,057,955

Lake Road Boiler 1 Dismantlement

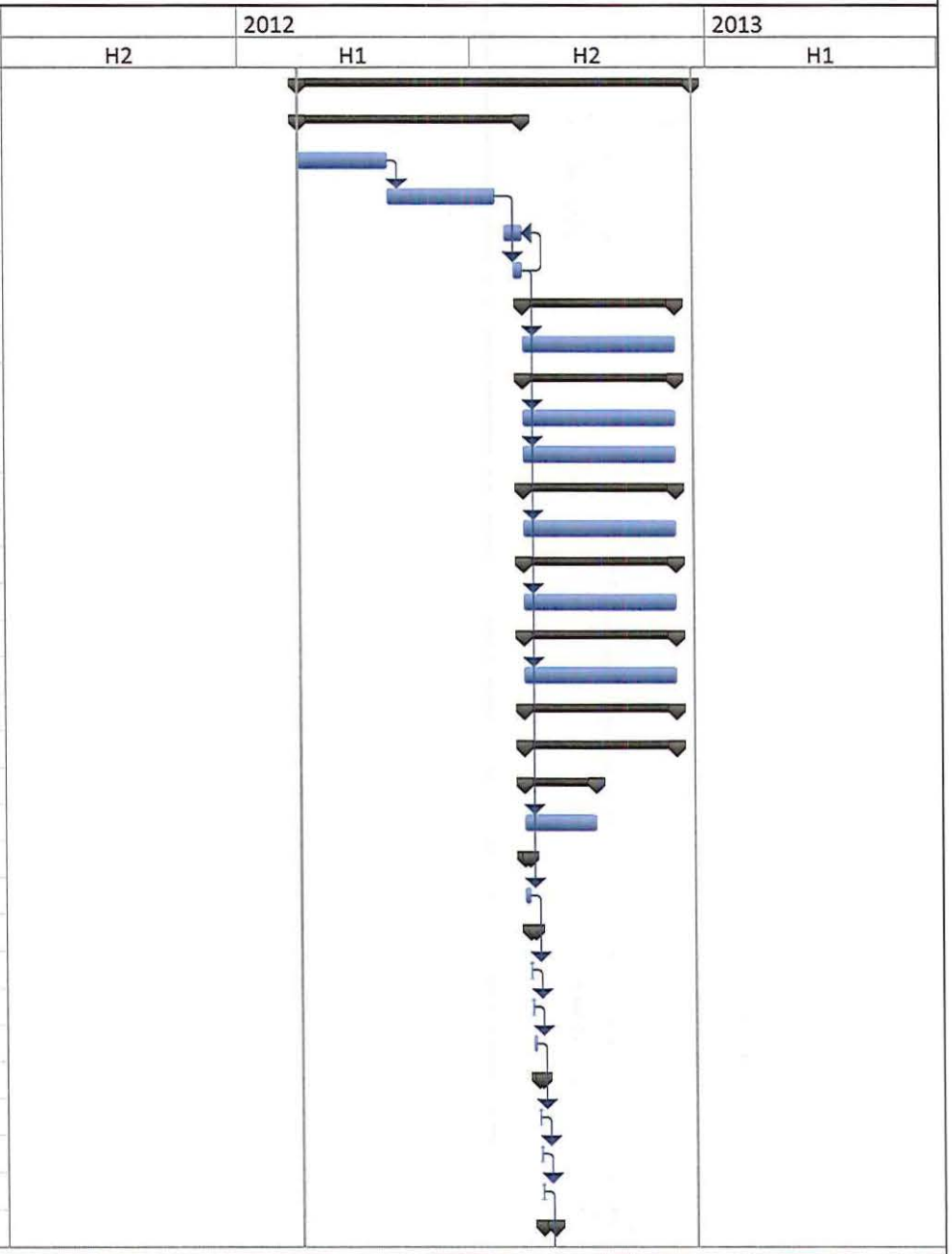
ID	Task Name	Cost
1	**Lake Road Boiler 1 Dismantlement**	**$2,057,957.12**
2	**Pre-Dismantlement Activities**	**$412,728.00**
3	Detailed Characterization Study	$234,744.40
4	Hire Demolition General Contractor	$167,184.00
5	KCP&L Prepares Unit for Dismantlement	$10,799.60
6	Demolition Contractor Mobilizes on Site	$0.00
7	**KCP&L Overhead during Dismantlement**	**$86,564.00**
8	KCP&L Engineer	$86,564.00
9	**Demoliton Contractor Overhead during Dismantlement**	**$129,546.80**
10	Demolition Contractor Safety Manager	$45,512.40
11	Demolition Contractor Superintendent	$84,034.40
12	**Demolition Contractor Equipment Rental Costs**	**$307,618.40**
13	Equipment Rental	$307,618.40
14	**Demolition Contractor Consummables**	**$306,904.40**
15	Consummables	$306,904.40
16	**Scrap Crew(s)**	**$304,531.20**
17	Crew to Handle Scrap Material(s)	$304,531.20
18	**Dismantlement Directs**	**$493,684.32**
19	**Phase 1 Demolition**	**$493,684.32**
20	**Electrical Demolition**	**$71,654.40**
21	Electrical Demolition Equipment	$71,654.40
22	**Critical Piping**	**$3,582.72**
23	Main Steam Piping	$3,582.72
24	**Fuel Systems (plant side)**	**$7,165.44**
25	Gas Piping and Valves	$1,791.36
26	Fuel Oil Piping and Valves	$1,791.36
27	Igniters	$3,582.72
28	**Chemical Feed Systems**	**$5,374.08**
29	Tanks	$1,791.36
30	Pumps	$1,791.36
31	Piping	$1,791.36
32	**Sampling Systems**	**$10,017.12**
33	Field Mounted Heat Exchangers	$3,582.72
34	Piping	$2,851.68
35	Sample Panel	$3,582.72
36	**Miscellaneous Equipment**	**$8,956.80**
37	Miscellaneous Equipment (including Fire Protection)	$8,956.80
38	**Boiler Equipment**	**$71,654.40**
39	Fans	$17,913.60
40	Drums	$17,913.60
41	Ductwork	$35,827.20
42	**Boiler Removal**	**$143,308.80**
43	Furnace	$143,308.80
44	**Boiler Steel Framing**	**$100,316.16**

Lake Road Boiler 1 Dismantlement

ID	Task Name	Cost
45	Framing	$35,827.20
46	Bracing and Girts	$35,827.20
47	Columns	$28,661.76
48	**Boiler Foundations**	**$71,654.40**
49	Equipment Foundation Demolition to Grade	$71,654.40
50	**Project Close-Out**	**$16,380.00**
51	Project Close-Out Activities	$16,380.00

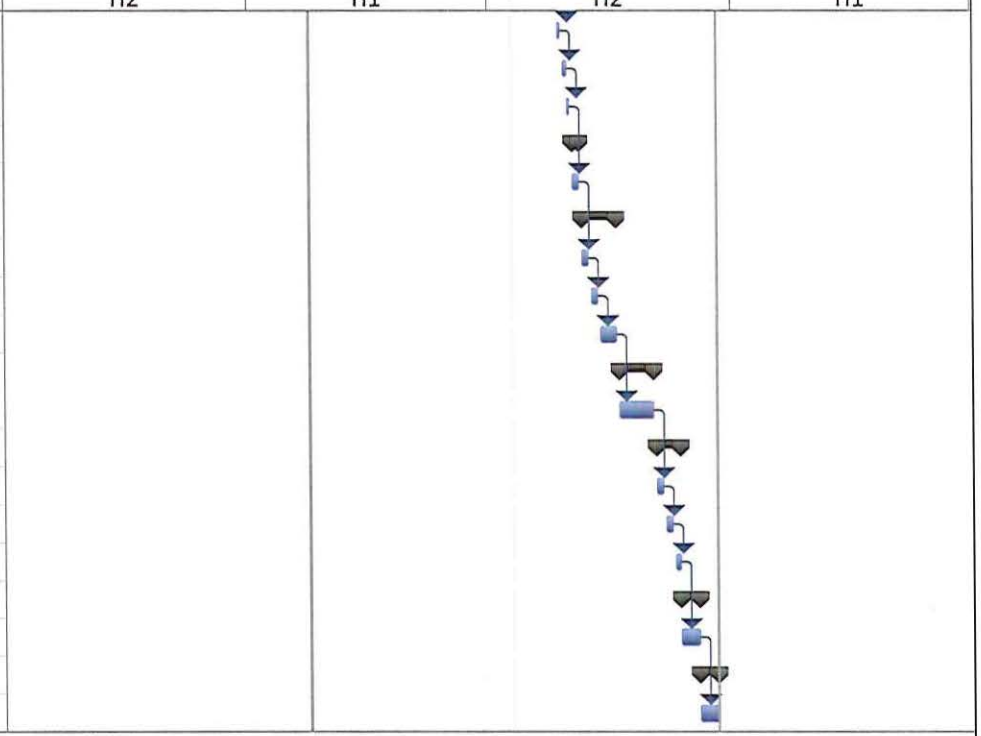
Lake Road Boiler 1 Dismantlement

ID	Task Name	Duration
1	**Lake Road Boiler 1 Dismantlement**	**220 days**
2	**Pre-Dismantlement Activities**	**125 days**
3	Detailed Characterization Study	50 days
4	Hire Demolition General Contractor	3 mons
5	KCP&L Prepares Unit for Dismantlement	2 wks
6	Demolition Contractor Mobilizes on Site	5 days
7	**KCP&L Overhead during Dismantlement**	**85 days**
8	KCP&L Engineer	85 days
9	**Demoliton Contractor Overhead during Dismantlemer**	**85 days**
10	Demolition Contractor Safety Manager	85 days
11	Demolition Contractor Superintendent	85 days
12	**Demolition Contractor Equipment Rental Costs**	**85 days**
13	Equipment Rental	85 days
14	**Demolition Contractor Consummables**	**85 days**
15	Consummables	85 days
16	**Scrap Crew(s)**	**85 days**
17	Crew to Handle Scrap Material(s)	85 days
18	**Dismantlement Directs**	**85 days**
19	**Phase 1 Demolition**	**85 days**
20	**Electrical Demolition**	**40 days**
21	Electrical Demolition Equipment	40 days
22	**Critical Piping**	**2 days**
23	Main Steam Piping	2 days
24	**Fuel Systems (plant side)**	**4 days**
25	Gas Piping and Valves	1 day
26	Fuel Oil Piping and Valves	1 day
27	Igniters	2 days
28	**Chemical Feed Systems**	**3 days**
29	Tanks	1 day
30	Pumps	1 day
31	Piping	1 day
32	**Sampling Systems**	**7 days**



Lake Road Boiler 1 Dismantlement

ID	Task Name	Duration
33	Field Mounted Heat Exchangers	2 days
34	Piping	3 days
35	Sample Panel	2 days
36	**Miscellaneous Equipment**	**5 days**
37	Miscellaneous Equipment (including Fire Protec	5 days
38	**Boiler Equipment**	**20 days**
39	Fans	5 days
40	Drums	5 days
41	Ductwork	10 days
42	**Boiler Removal**	**20 days**
43	Furnace	20 days
44	**Boiler Steel Framing**	**14 days**
45	Framing	5 days
46	Bracing and Girts	5 days
47	Columns	4 days
48	**Boiler Foundations**	**10 days**
49	Equipment Foundation Demolition to Grade	10 days
50	**Project Close-Out**	**10 days**
51	Project Close-Out Activities	10 days



BOILER 2

Lake Road Boiler 2 Retirement

Owner Costs			
Pre-Retirement Activities		$25,969	
Retirement Activities		$52,440	
Post-Retirement Activities		$13,282	
Owner Direct Total			$91,691
Owner Internal Costs	5.00%		$4,585
Owner Contingency:	25.00%		$24,069
Lake Road Boiler 2 Retirement Opinion of Probable Cost:			$120,344

Lake Road Boiler 2 Retirement

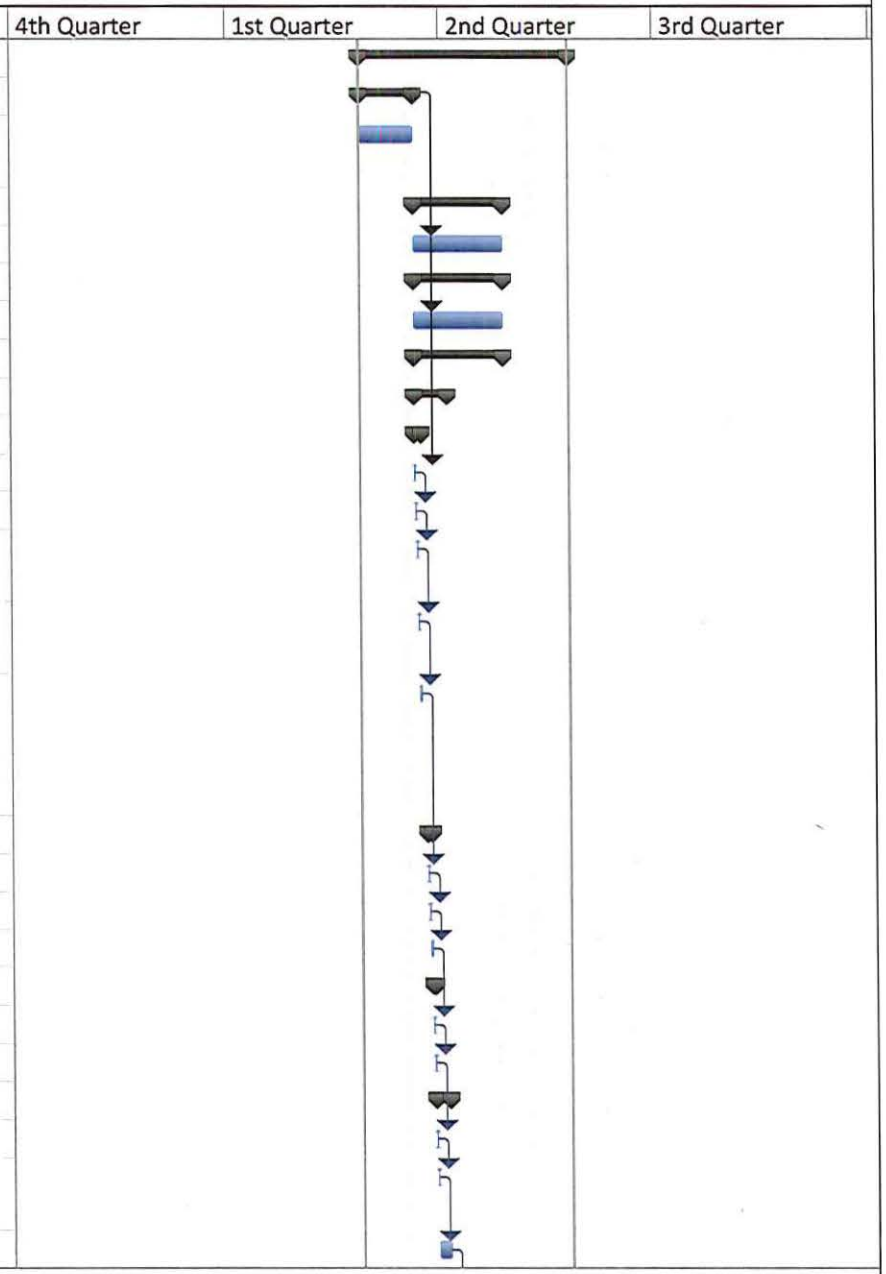
ID	Task Name	Cost
1	**Lake Road Boiler 2 Retirement**	**$91,691.28**
2	**Pre-Engineering**	**$25,969.20**
3	Permit review and engineering analysis and establish isolation points.	$25,969.20
4	**KCL&L Overhead Costs**	**$17,348.80**
5	KCP&L Retirement Manager	$17,348.80
6	**Equipment Rentals**	**$5,877.76**
7	Vacuum truck	$5,877.76
8	**Retirement**	**$29,213.52**
9	**Electrical**	**$10,037.04**
10	**Medium and Low Voltage Draw out Switchgear**	**$2,679.84**
11	De-energize all buses at the source.	$446.64
12	Open all circuit breakers.	$446.64
13	Rack all circuit breakers into the fully withdrawn, disconnected position.	$446.64
14	Verify that the closing/tripping springs are discharged.	$446.64
15	De-energize control power and auxiliary power circuits of each circuit breaker at the source and by opening control power circuit breakers or removing fuses in each breaker cubicle.	$893.28
16	**Motor Control Centers**	**$1,786.56**
17	De-energize all buses at the source.	$446.64
18	Open all circuit breakers and disconnect switches.	$446.64
19	Remove all fuses in control circuits.	$893.28
20	**Low-voltage Switchboards and Panelboards**	**$893.28**
21	De-energize all buses at the source.	$446.64
22	Open all circuit breakers and disconnect switches.	$446.64
23	**Motors**	**$4,677.36**
24	De-energize all primary power at the source.	$446.64
25	De-energize all low-voltage power sources for space heaters or other auxiliary equipment at the source.	$446.64
26	Drain lube oil system (if applicable) and dispose of oil.	$3,784.08
27	**Fuel Systems**	**$3,784.08**
28	Isolate gas lines from source, open and vent.	$1,261.36
29	Isolate fuel oil lines from source, drain, open and vent.	$2,522.72
30	**Boiler Chemical Feed**	**$1,261.36**
31	Drain all chemical feed tanks.	$1,261.36
32	**Boiler**	**$7,084.64**
33	Open boiler doors.	$880.96
34	Gas side - perform cleaning of the boiler and bottom ash system.	$4,480.00
35	Drain boiler, drum, downcomers and headers.	$842.72
36	Open drum doors.	$880.96
37	**Ductwork**	**$5,360.96**
38	Open ductwork doors.	$880.96
39	Perform extensive cleaning of the ductwork.	$4,480.00
40	**Feedwater Piping**	**$842.72**

Lake Road Boiler 2 Retirement

ID	Task Name	Cost
41	Drain water from the system.	$421.36
42	Leave open vents and drains.	$421.36
43	**Compressed Air System**	**$842.72**
44	Open vents and drains.	$842.72
45	**Post Retirement Activities**	**$13,282.00**
46	Post Retirement Activities	$13,282.00

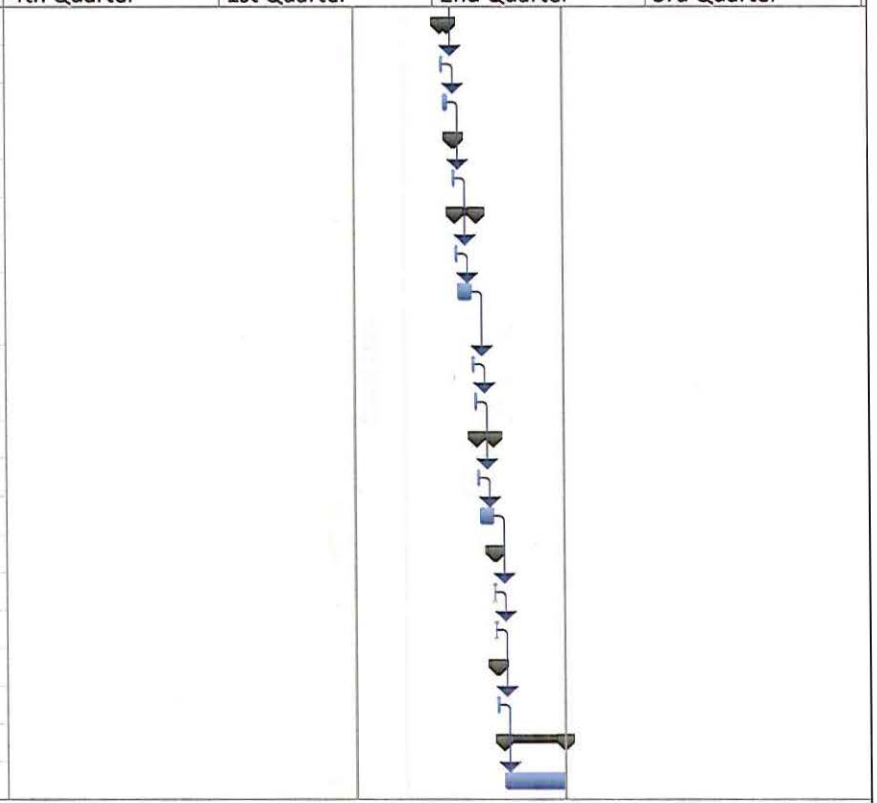
Lake Road Boiler 2 Retirement

ID	Task Name	Duration
1	**Lake Road Boiler 2 Retirement**	**65 days**
2	**Pre-Engineering**	**17 days**
3	Permit review and engineering analysis and establish isolation points.	17 days
4	**KCL&L Overhead Costs**	**28 days**
5	KCP&L Retirement Manager	28 days
6	**Equipment Rentals**	**28 days**
7	Vacuum truck	28 days
8	**Retirement**	**28 days**
9	**Electrical**	**10 days**
10	**Medium and Low Voltage Draw out Switchgear**	**3 days**
11	De-energize all buses at the source.	0.5 days
12	Open all circuit breakers.	0.5 days
13	Rack all circuit breakers into the fully withdrawn, disconnected position.	0.5 days
14	Verify that the closing/tripping springs are discharged.	0.5 days
15	De-energize control power and auxiliary power circuits of each circuit breaker at the source and by opening control power circuit breakers or removing fuses in each breaker cubicle.	1 day
16	**Motor Control Centers**	**2 days**
17	De-energize all buses at the source.	0.5 days
18	Open all circuit breakers and disconnect switches.	0.5 days
19	Remove all fuses in control circuits.	1 day
20	**Low-voltage Switchboards and Panelboards**	**1 day**
21	De-energize all buses at the source.	0.5 days
22	Open all circuit breakers and disconnect switches.	0.5 days
23	**Motors**	**4 days**
24	De-energize all primary power at the source.	0.5 days
25	De-energize all low-voltage power sources for space heaters or other auxiliary equipment at the source.	0.5 days
26	Drain lube oil system (if applicable) and dispose of oil.	3 days



Lake Road Boiler 2 Retirement

ID	Task Name	Duration
27	**Fuel Systems**	**3 days**
28	Isolate gas lines from source, open and vent.	1 day
29	Isolate fuel oil lines from source, drain, open and vent.	2 days
30	**Boiler Chemical Feed**	**1 day**
31	Drain all chemical feed tanks.	1 day
32	**Boiler**	**7 days**
33	Open boiler doors.	1 day
34	Gas side - perform cleaning of the boiler and bottom ash system.	4 days
35	Drain boiler, drum, downcomers and headers.	1 day
36	Open drum doors.	1 day
37	**Ductwork**	**5 days**
38	Open ductwork doors.	1 day
39	Perform extensive cleaning of the ductwork.	4 days
40	**Feedwater Piping**	**1 day**
41	Drain water from the system.	0.5 days
42	Leave open vents and drains.	0.5 days
43	**Compressed Air System**	**1 day**
44	Open vents and drains.	1 day
45	**Post Retirement Activities**	**20 days**
46	Post Retirement Activities	20 days



Lake Road Boiler 2 Dismantlement

Owner Costs				
Pre-Dismantlement Activities			$412,728	
Overhead During Dismantlement			$86,564	
Post-Dismantlement Activities			$16,380	
Owner Costs Total*				$515,672
Demolition General Contractor (DGC) Costs				
Site Management			$129,546	
Equipment Rental			$307,618	
Consummables			$306,904	
Scrap Crew(s)			$304,531	
Dismantlement			$493,684	
Contractor Direct Cost*		$1,542,283		
Contractor Allowances				
DGC Insurance	2.00%		$30,846	
Contingency/Profit	15.00%		$235,969	
Performance Bond	2.00%		$36,181.96	
Contractor Costs Total:				$1,845,280
Total:				$2,360,952
Owner Internal Costs:	5.00%			$118,048
Owner Contingency:	25.00%			$619,750
Lake Road Boiler 2 Dismantlement Opinion of Probable Cost:				$3,098,749

*Owner Costs Total + Contractor Direct Costs = Manpower Loaded Schedule Total w/o Contractor Allowances
= $2,057,955