



Mitchell Plant Unit 1 & 2  
**CONCEPTUAL DEMOLITION COST ESTIMATE**

Prepared for:  
American Electric Power

Project No. 11488-066  
March 20, 2013  
Revision 0



55 East Monroe Street  
Chicago, IL 60603-5780 USA



Mitchell Plant Unit 1 & 2  
 American Electric Power  
 Conceptual Demolition Cost Estimate  
 March 20, 2013

**Issue Summary Page**

Revision Number	Date	Purpose	Prepared By	Reviewed By	Approved By	Pages Affected
A	02/22/13	Comments	R. Kinsinger	J. A. Evanchik D. F. Franczak		All
0	03/20/13	Use	R. Kinsinger <i>R. Kinsinger</i>	J. A. Evanchik <i>J. A. Evanchik</i> D. F. Franczak <i>D. F. Franczak</i>	S. R. Bertheau <i>S. R. Bertheau</i>	All



## TABLE OF CONTENTS

<u>Section</u>	<u>Page</u>
1 INTRODUCTION .....	1
2 COST ESTIMATE SUMMARY .....	1
3 TECHNICAL BASIS .....	2
4 COMMERCIAL BASIS .....	3
4.1 General Information .....	3
4.2 Quantities/Material Cost .....	3
4.3 Construction Labor Wages.....	3
4.4 Scrap Value .....	4
4.5 Indirect Costs .....	4
4.6 Escalation .....	4
4.7 Contingency .....	5
4.8 Assumptions .....	5
5 REFERENCES .....	7

<u>EXHIBIT</u>	<u>DESCRIPTION</u>
1	Conceptual Demolition Cost Estimate No. 31982B



## 1.0 INTRODUCTION

The Mitchell Plant is located near Moundsville, West Virginia in Marshall County. The plant consists of two (2) generating units with a total generating capacity of 1,632 megawatts (816, MW per unit). Units 1 & 2 were placed in operation in 1971.

American Electric Power (AEP) recently contracted Sargent & Lundy, LLC. (S&L) to prepare a conceptual demolition cost estimate using 1<sup>st</sup> Quarter 2013 pricing levels. The objective of the conceptual demolition cost estimate is to determine the gross demolition costs for Mitchell Plant Units 1 and 2 (including gross salvage credits and any other benefits). The cost estimate considers the demolition/dismantlement methodology which complies with current OSHA rules and regulations.

## 2.0 COST ESTIMATE SUMMARY

Conceptual Demolition Cost Estimate No. 31982B, dated March 20, 2013, was prepared and is included as Exhibit 1. The cost estimate is structured into a code of accounts as identified in Table 2-1.

**Table 2-1**  
**Cost Estimate Code of Accounts**

<b>Account Number</b>	<b>Description</b>
10	Demolition Costs (including steel, equipment & piping scrap value)
18	Scrap Value Costs
91	Other Direct & Construction Indirect Costs
93	Indirect Costs
94	Contingency Costs
96	Escalation Costs

The results of the cost estimate are provided in Table 2-2 below:



**Table 2-2**  
**Cost Estimate Results Summary**

<b>Description</b>	<b>Total Cost</b>
Demolition Cost	\$62,531,960
Scrap Value	\$(38,063,765)
Direct Cost Subtotal	\$24,468,195
Indirect Cost	\$ 2,446,800
Contingency Cost	\$15,456,400
<b>Total Project Cost</b>	<b>\$42,371,395</b>

### **3.0 TECHNICAL BASIS**

The scope of dismantlement includes the complete Mitchell Plant Units 1 & 2 generating facility and plant common services associated with both units. Common facilities include:

- 1,200 ft Chimney
- 1,000 ft Chimney
- Various Buildings
- FGD Common Equipment

The following are excluded from the scope of the conceptual demolition cost estimate.

- Bottom Ash Pond
- Asbestos Removal
- Switchyard

The scope of the demolition cost estimate is based on a review of the facility by two (2) S&L employees conducted in January 2013 for development of the demolition cost estimate.



---

## **4.0 COMMERCIAL BASIS**

### **4.1 General Information**

The Conceptual Demolition Cost Estimate prepared for the Mitchell Plant is a conceptual estimate of the cost to dismantle Mitchell Plant Units 1 and 2.

Costs were calculated for (1) demolition of existing plant structures and equipment and associated site restoration costs, (2) scrap value of steel and copper, (3) associated indirect costs, and (4) contingency. All units used in the cost estimate are U.S. Standard and all costs are in US Dollars (1<sup>st</sup> Quarter 2013 levels). A two (2) year demolition schedule is anticipated not including asbestos removal (to be performed prior to start of demolition work).

### **4.2 Quantities/Material Cost**

Quantities of pieces of equipment and/or bulk material commodities used in this cost estimate were intended to be reasonable and representative of projects of this type. Material quantities were estimated from the site plot plan and other drawings and data provided by AEP and Plant Personnel.

### **4.3 Construction Labor Wages**

Craft labor rates (Craft Hourly Rate) for the cost estimate were calculated as Non-Union West Virginia Craft Labor rates based on Personnel Administration Services (PAS) Inc. "2013 Merit Shop Wage and Benefit Survey". The craft rates were incorporated into work crews appropriate for the activities by adding allowances for small tools, construction equipment, insurance, and site overheads to arrive at crew hourly rates detailed in the cost estimate. A 1.00 regional labor productivity multiplier was included based on Compass International Global Construction Yearbook, 2013 Edition, for non-union work in West Virginia.

#### **4.3.1 Labor Work Schedule and Incentives**

The estimate assumed a 5x8 work week. No other labor incentives are included.

#### **4.3.2 Construction Indirects**

Allowances were included in the cost estimate as direct costs as noted for the following:

- Freight: Material and scrap freight included in the material and scrap costs.



- Additional Crane Allowance: None included. Cost of cranes and construction machinery are included in the labor wage rates.
- Mobilization and Demobilization: Included in labor wage rates.
- Scaffolding: Included in labor wage rates.
- Consumables: Included in material and labor costs.
- Per Diem Costs: Excluded from the estimate.
- Contractor's General and Administrative Costs and Profit: Included in the labor wage rates.

#### 4.4 Scrap Value

The value of scrap was determined by a 12 month average (March 2012 through February of 2013) using Zone 4 (USA Midwest) of the "Scrap Metals Market Watch" ([www.americanrecycler.com](http://www.americanrecycler.com)).

Since the values obtained are delivered pieces, 10% of the values obtained were deducted to pay for separation, preparation and shipping to the mills. This resulted in realized prices of:

- Mixed Steel Value @ \$287/Ton
- Copper Value @ \$6,091/Ton
- Stainless Steel @ \$1,336/Ton

Note: 1 Ton = 2,000 Lbs

All steel is considered to be mixed steel unless otherwise noted.

#### 4.5 Indirect Costs

Allowances were included in the cost estimate as indirect costs as noted for the following:

- Engineering, Procurement and Project Services: None included.
- Construction Management Support: None included.
- Owners Cost: Included as 10.0% of the total direct cost. Owners Costs include owner project engineering, administration and construction management, permits and fees, legal expenses, taxes, etc.

#### 4.6 Escalation

No allowance for escalation was included in the cost estimate. All costs are determined in 1st Quarter 2013 levels.



#### 4.7 Contingency

Allowances were included in the cost estimate as contingency as noted for the following:

- Scrap Value: Included as a 15.0% reduction in the salvage value resulting in a total net reduction in the salvage value. The contingency assumes a potential drop in salvage value thus increasing the project cost.
- Material: Included as 15.0% of the total material cost.
- Labor: Included as 15.0% of the total labor cost.
- Indirect: Included as 15.0% of the total indirect cost.

#### 4.8 Assumptions

The following assumptions apply to the cost estimate.

- All chemicals will be removed by the Owner prior to demolition, from the facilities to be demolished.
- All coal and fuel oil will be consumed prior to demolition.
- Catalyst, if any, is assumed to be removed and returned to the OEM by others, prior to demolition.
- All electrical equipment and wiring is de-energized prior to start of dismantlement.
- No extraordinary environmental costs for demolition have been included. Removal of five (5) feet of fill inside the bermed areas around the oil tanks and metal cleaning waste tank is included.
- Asbestos and PCB's are removed from site by others prior to start of demolition.
- Bottom Ash Pond is not included. These costs will be determined by the Owner.
- Demolition of the two (2) chimneys will be subcontracted. One chimney is 1,200 ft high and the second is 1,000 ft high. The 1,200 ft chimney is approximately 200 ft from WV Route 2 and the 1,000 ft chimney is approximately 600 ft from the same road. Also, in the opposite direction the 1,200 ft chimney is approximately 1,500 ft from the Ohio River and the 1,000 ft chimney is approximately 1,250 ft from the river. Therefore Careful Demolition (top down demolition process) will be used to dismantle the chimneys as opposed to explosive demolition (which can scatter debris onto the road and into the river). Each chimney is demolished by breaking it up from the top and dropping the debris down the throat of the chimney and removing the debris periodically through the duct openings on the sides of the chimney (located 75 to 100 ft above grade). The remaining portion of the chimney below the duct openings is then demolished as any other structure.





- Switchyards within the plant boundaries are not part of the scope, neither are access roads to these facilities. Fences and gates needed to protect the switchyard will be left in place. The other site fences are removed.
- All items above grade and to a depth of 2 foot will be demolished. Any other items buried more than 2 foot will remain in place. All foundations are removed and buried on site with the exception of power block (turbine building, boiler building and service building), FGD building, limestone preparation building, gypsum dewatering building and the two (2) chimney thick mat foundations at grade. These foundations will have two (2) feet of soil spread over them and will be graded into the surrounding area.
- Underground piping, conduit and cable ducts will be abandoned in place.
- Underground piping larger than 4 feet diameter will be filled with sand or slurry and capped at the ends to prevent collapse. Non-metal pipe will be collapsed.
- All demolished materials are considered debris, except for organic combustibles and non-embedded metals which have scrap value.
- The basis for salvage estimating is for scrap value only. No resale of equipment or material is included.
- Handling, on-site and off-site disposal of hazardous materials would be performed in compliance with methods approved by Owner.
- Disturbed areas will be buried under 2 feet of topsoil mulched and seeded with grass – no other landscaping is included.
- All borrow material is assumed to be purchased from nearby (10 mile round trip) offsite sources.
- Debris not suitable for burial is to be disposed of off-site. Assumed distance to final disposal is within a 5 mile haul.



Mitchell Plant Unit 1 & 2  
 American Electric Power  
 Conceptual Demolition Cost Estimate  
 March 20, 2013

**5.0 REFERENCES**

Drawings utilized in the preparation of this demolition cost estimate are identified in Table 5-1.

**Table 5-1**

**Reference Drawings**

Unit	Document Number	Revision	Title
12	E-1000	1	34.5KV & Coal Handling-1000
12	E-1100	0	Fish Creek Station 69KV/34.5KV One Line Diagram & Protection
12	1200D	23	Coal Handling Barge Unloading Auxiliary One-Line Diagram
12	1200E	16	Coal Handling Auxiliary One-Line Diagram.
12	1200H	1	Coal Handling Auxiliary One-Line Diagram Car Thawing
12	121001	3	FGD One Line Diagram
12	121102	4	Electrical 138-13.8 KV Substation Line 2 Bus B One Line Diagram
12	121020	5	Dry Sorbent 13.8kv Auxiliary One Line Diagram
12	121101	4	Electrical 138-13.8 KV Substation Line 1 Bus A One Line Diagram
12	50008	8	General Arrangement Precipitator Install Comp Plan Below El. 676-0
12	50009	4	General Arrangement Precipitator Install Plan Above El 676-0
12	50012	3	General Arrangement Precipitator Access & Rectifier Removal
12	5028A	0	Arrangement And Details Feeder Down Spout Unit 1 And 2
12	5030	16	Plot Plan
12	5031	2	General Cross Sects
12	5032	1	General Cross Sects @ General
12	5034	2	Long Sects Thru Heater Bay
12	5035	1	Long Sects Thru Steam General
12	5036	1	Cross Sects Pulv Bay
12	5041	2	Plans Heater Bay & Steam General El. 58-0, 70-0, & 80-0
12	5042	2	Slag Blower Platforms - Heater Bay And Turbine Room Roof
12	5043	1	Plans Deaer & Upper Level Slag Blowers Platform
12	5044	1	Comp Main Floor
12	5044A	0	Property Plan & Ash Storage Area
12	5044B	2	Equipment Location - Conners Run Pump House
12	5070000A	1	Site Layout
12	5070000A	0	General Arrangement FGD Building El. 667'-0"
12	5070000B	0	General Arrangement FGD Building El. 705'-0"
12	5070000C	0	General Arrangement FGD Building El. 720'-0"
12	5070000D	0	General Arrangement FGD Building El. 743'-0"
12	5070000E	0	General Arrangement FGD Building El. 755'-2 1/2"
12	5070000F	0	General Arrangement FGD Building El. 776'-3"
12	5070000G	0	General Arrangement FGD Building El. 798'-0 1/2"
12	5070000H	0	General Arrangement FGD Building Elevation Looking East
12	5070000I	0	General Arrangement FGD Building Elevation Looking North
12	5070000J	0	General Arrangement FGD Building Laboratory
12	5070001A	0	General Arrangement Dewatering Area El. 667'-0"
12	5070001B	0	General Arrangement Dewatering Area El. 695'-0"
12	5070001C	0	General Arrangement Dewatering Area El. 729'-6"





Mitchell Plant Unit 1 & 2  
 American Electric Power  
 Conceptual Demolition Cost Estimate  
 March 20, 2013

Unit	Document Number	Revision	Title
12	5070001D	0	General Arrangement Dewatering Area El. 757'-4" & El. 781'-0"
12	5070001E	0	General Arrangement Dewatering Area Elevation Looking North
12	5070002A	0	General Arrangement Reagent Prep Area El. 667'-0"
12	5070002B	0	General Arrangement Reagent Prep Area El. 705'-1 1/4"
12	5070002C	0	General Arrangement Reagent Prep Area El. 729'-6" & El 784'-2"
12	5070003	0	General Arrangement Urea U2a Area
12	5070006	0	General Arrangement Service Water Area Plan View
12	5070007	0	General Arrangement Existing Aux Boiler Stack Relocation
12	5070007A	0	Elevation Auxilliary Boiler Stack Relocations
12	5070008A	1	General Arrangement Dry Solid Sorbent System Enlarged Plan
12	5070008B	0	General Arrangement Dry Solid Sorbent System Section A-A
12	5070008C	0	General Arrangement Dry Sorbent System Overall Plan
12	5070008D	0	General Arrangement Dry Solid Sorbent System Section B-B
12	5070009	0	General Arrangement Coal Blending System Plan
12	5070010	0	General Arrangement Gypsum Conveyors To Wallboard Plant
12	5078000B	2	Hydraulic Profile
12	5078000C	2	Key Plan
12	5078000J	2	Piperack Enlarged Lower Plan
12	5078000K	2	Piperack Enlarged Middle Plan
12	5078000L	2	Piperack Enlarged Upper Plan
12	12-5080022	1	General Arrangement FGD Reagent Prep Area Ground Floor El 667'-0"
12	12-5080023	1	General Arrangement FGD Reagent Prep Area Plan At El. 681'-6-1/4"
12	12-5080024	1	General Arrangement FGD Reagent Prep Area Plan At Platform El 705'-1 1/4"
12	12-5080025	1	General Arrangement FGD Reagent Prep Area Plan At Platform El 741'-1 1/4"
12	12-5080026	1	General Arrangement FGD Reagent Prep Area Front Section F1-F1
12	12-5080027	1	General Arrangement FGD Reagent Prep Area Front Section F2-F2
12	12-5080028	1	General Arrangement FGD Reagent Prep Area Front Section F3-F3
12	12-5080029	1	General Arrangement FGD Reagent Prep Area Front Section F4-F4
12	12-5080030	1	General Arrangement FGD Reagent Prep Area Side Section S1-S1
12	12-5080031	1	General Arrangement FGD Reagent Prep Area Side Section S2-S2
12	5080074	2	General Arrangement FGD Byproduct Dwt Area Side Section S3-S3
12	5080302	0	Design Arrangement Abs Area Pipe Ground Floor To El 692'-0"
12	548839E	1	General Arrangement FGD Maintenance Storage Area Ground Floor To El 667'-0"
12	549320E	2	Erection Arrangement Drb-4z Pc Fired Burner CW
12	549321E	2	Erection Arrangement Drb-4z Pc Fired Burner CW
12	549322E	2	Erection Arrangement Drb-4z Pc Fired Burner CW
12	549323E	2	Erection Arrangement Drb-4z Pc Fired Burner CW



Mitchell Plant Unit 1 & 2  
 American Electric Power  
 Conceptual Demolition Cost Estimate  
 March 20, 2013

Unit	Document Number	Revision	Title
12	71002-MA-0-5090100	0	SCR System Equipment Arrangement Plan
1	1200A1	20	Aux One Line Diagram Sheet 1 Of 2
1	1200A2	20	Aux One Line Diagram Sheet 2 Of 2
1	12001	5	Precipitator Auxiliary One-Line
1	12002	5	Precipitator Equip Power Dist Aux One-Line Diagram
1	121002	2	Unit 1 FGD 13.8kv - 4.16kv Auxiliary One Line Diagram
1	50003	7	Fly Ash Removal Wet System Unit 1
1	50010	2	General Arrangement Precipitator Install Sections
1	5033	2	Long Sects Thru Turbine Room
1	5037	6	Basement Plan Elevation 1' -0' Unit 1
1	5038	3	Miscellaneous FI & Platform Below Main Floor
1	5039	2	Main FI Plan EI 36-0
1	5040	2	Heater Bay & Steam Gen EI 46'0" 48'0" & 52'6"
1	5090000	2	SCR General Arrangement Elevation A/10 Looking South
1	5090001	2	SCR General Arrangement Elevation B/11 Looking West
1	5090002	2	SCR General Arrangement Elevation C/12 Looking East
1	5090003	1	SCR General Arrangement Elevation D/13 Looking West
1	5090004	2	SCR General Arrangement Elevation H/14 & J/14 Center and Outbound Return Ducts
1	5090005	1	SCR General Arrangement Plan View E/20
1	5090006	2	SCR General Arrangement Plan View F/21
1	5090007	2	SCR General Arrangement Plan View G/22
1	5090008	1	SCR General Arrangement Plan View H/23
2	1200A2	19	Aux One Line Diagram Sheet 2 Of 2
2	1200A1	19	Aux One Line Diagram Sheet 1 Of 2
2	121003	3	Unit 2 FGD 13.8kv - 4.16kv Auxiliary One Line Diagram
2	50011	2	General Arrangement Precipitator Install Sections
2	50014	0	Arrangement FGD Fan Room New Motors & Rotors
2	5033	1	Long Sects Thru Turbine Room
2	5037	3	Basement Plan Elevation 1" - 0"
2	5038	2	Miscellaneous Floors & Platform Below Main Floor
2	5039	3	Main Floor Plan EI 36-0
2	5040	2	Heater Bay & Steam Generator EI 46-0; 48-0 & 52-6
2	5090000	1	SCR General Arrangement Elevation A/10 Looking South
2	5090001	1	SCR General Arrangement Elevation B/11 Looking West
2	5090002	1	SCR General Arrangement Elevation C/12 Looking East
2	5090003	1	SCR General Arrangement Elevation D/13 Looking West
2	5090005	1	SCR General Arrangement Plan View E/20
2	5090006	1	SCR General Arrangement Plan View F/21
2	5090007	1	SCR General Arrangement Plan View G/22
2	5090008	1	SCR General Arrangement Plan View H/23

12 = Common For Units 1 & 2

1 = Unit 1

2 = Unit 2



Mitchell Plant Unit 1 & 2  
American Electric Power  
Conceptual Demolition Cost Estimate  
March 20, 2013

---

**EXHIBIT 1**  
**Mitchell Plant Units 1 & 2**  
**Conceptual Demolition Cost Estimate No. 31982B**

**AMERICAN ELECTRIC POWER  
Decommissioning Study Mitchell Plant  
Units 1, 2 and Common Facilities**

**Project name** Mitchell Plant

**Estimator** RCK

**Labor rate table** 13NUWV

**Project No.** 11488-066

**Station Name** Mitchell Plant

**Unit** 1, 2 and Common

**Location** West Virginia

**Product Factor** 1

**Price Level** 2013

**Issue Date** 3/20/2013

**Estimate Date** 3/14/2013

**Reviewed By** JAE

**Approved By** MNO

**Status** *Comments*

**Estimate No.** 31982B

**Estimate Class** Conceptual

**Cost index** NUWV

AMERICAN ELECTRIC POWER  
Decommissioning Study Mitchell Plant  
Units 1, 2 and Common Facilities

ESTIMATE NO.: 31982B  
PROJECT NO.: 11488-066  
ISSUE DATE: 3/20/2013  
PREP./REV.: RCK/JAE  
APPROVED: MNO



Estimate Totals

Description	Amount	Totals	Hours	Percent of Total
LABOR	46,995,884		589,630,602 hrs	110.91%
MATERIAL	11,136,076			26.28%
SUBCONTRACT	4,400,000			10.38%
SCRAP RECOVERY (38,063,765)				-89.83%
	<b>24,468,195</b>	<b>24,468,195</b>		<b>57.75%</b>
91-1 SCAFFOLDING				
91-2 OT WORKING 5-10 HOUR DAYS				
91-3 OT Working 7-10 Hr Days				
91-2 PER DIEM				
91-5 CONSUMABLES				
91-6 FREIGHT ON EQUIPMENT				
91-7 FREIGHT ON SPECIAL EQUIP.				
91-8 FREIGHT ON MATERIAL				
91-9 FREIGHT ON SCRAP INCL				
91-10 SALES TAX				
91-11 CONTRACTOR'S G&A EXPENSE				
91-12 CONTRACTOR'S PROFIT		<b>24,468,195</b>		<b>57.75%</b>
93-1 EP&P SERVICES				
93-2 CM SUPPORT				
93-3 START-UP/COMMISSIONING				
93-4 START-UP/SPARE PARTS				
93-5 EXCESS LIABILITY INSUR.				
93-6 SALES TAX ON INDIRECTS				
93-7 OWNER'S COST	2,446,800			5.77%
93-8 EPC FEE		<b>2,446,800</b>		<b>5.77%</b>
94-3 CONTINGENCY ON MATERIAL	1,670,400			3.94%
94-4 CONTINGENCY ON LABOR	7,049,400			16.64%
94-5 CONTINGENCY ON SUB.	660,000			1.56%
94-6 CONTINGENCY ON SCRAP	5,709,600			13.48%
94-7 CONTINGENCY ON INDIRECTS	367,000			0.87%
	<b>15,456,400</b>	<b>42,371,395</b>		<b>36.48%</b>
96-3 ESCALATION ON MATERIAL				
96-4 ESCALATION ON LABOR				
96-5 ESCALATION ON SUB.				
96-6 ESCALATION ON SCRAP				
96-7 ESCALATION ON INDIRECTS				
98 INTEREST DURING CONSTR.		<b>42,371,395</b>		<b>100.00%</b>
<b>Total/</b>		<b>42,371,395</b>		<b>100.00%</b>

AMERICAN ELECTRIC POWER  
Decommissioning Study Mitchell Plant  
Units 1, 2 and Common Facilities

ESTIMATE NO.: 31982B  
PROJECT NO.: 11485-066  
ISSUE DATE: 3/20/2013  
PREP./REV.: RCK/JAE  
APPROVED: MNO



Area	Group	DESCRIPTION	LABOR MAN HRS	LABOR AMOUNT	MATERIAL AMOUNT	SUB AMOUNT	PROCESS EQUIP AMOUNT	TOTAL AMOUNT
Common	10.00.00	WHOLE PLANT DEMOLITION	211,270	19,483,672	11,020,976	4,400,000		34,904,648
	18.00.00	SCRAP VALUE					(8,643,497)	(8,643,497)
		<b>Common</b>	<b>211,270</b>	<b>19,483,672</b>	<b>11,020,976</b>	<b>4,400,000</b>	<b>(8,643,497)</b>	<b>26,261,150</b>
Unit 1	10.00.00	WHOLE PLANT DEMOLITION	190,383	13,835,429	57,550			13,892,979
	18.00.00	SCRAP VALUE					(14,999,173)	(14,999,173)
		<b>Unit 1</b>	<b>190,383</b>	<b>13,835,429</b>	<b>57,550</b>		<b>(14,999,173)</b>	<b>(1,106,194)</b>
Unit 2	10.00.00	WHOLE PLANT DEMOLITION	187,978	13,676,784	57,550			13,734,334
	18.00.00	SCRAP VALUE					(14,421,095)	(14,421,095)
		<b>Unit 2</b>	<b>187,978</b>	<b>13,676,784</b>	<b>57,550</b>		<b>(14,421,095)</b>	<b>(686,761)</b>





**AMERICAN ELECTRIC POWER**  
Decommissioning Study Mitchell Plant  
Units 1, 2 and Common Facilities

ESTIMATE NO.: 31982B  
PROJECT NO.: 11488-066  
ISSUE DATE: 3/20/2013  
PREP/REV.: RCK/JAE  
APPROVED: MNO



Area	Group	Phase	Description	Notes	Quantity	Man Hours	Crew Rate	Labor Cost	Material Cost	Subcontract Cost	Process Equipment Cost	Total Cost
10.31.00			<b>MECHANICAL EQUIPMENT</b>									
			TANK, DEWATERING HYDROCLONE FEED TANK B, 850,800 GALLON	61" DIA X 63' HIGH	123.00 TN	329	65.69 /MH	21,589				21,589
			TANK, RECLAIM WATER TANK A, 351,000 GALLONS	45" DIA X 58' HIGH	60.00 TN	160	65.69 /MH	10,531				10,531
			TANK, RECLAIM WATER TANK B, 351,000 GALLONS	45" DIA X 58' HIGH	60.00 TN	160	65.69 /MH	10,531				10,531
			TANK, REAGENT SLURRY STORAGE TANK A, 457,920 GALLONS	50" DIA, X 50' HIGH	64.00 TN	171	65.69 /MH	11,234				11,234
			TANK, REAGENT SLURRY STORAGE TANK B, 457,920 GALLONS	50" DIA, X 50' HIGH	64.00 TN	171	65.69 /MH	11,234				11,234
			TANK, MAINTENANCE STORAGE TANK, 1,417,000 GALLONS	61" DIA X 67' TALL	129.00 TN	345	65.69 /MH	22,643				22,643
			TANK, FGD SERVICE WATER TANK, 389,480 GALLONS	36" DIA X 58' HIGH	37.00 TN	99	65.69 /MH	6,494				6,494
			TANK, UREA FEED TANK, 200,000 GALLONS	35" DIA X 30' HIGH	25.00 TN	67	65.69 /MH	4,388				4,388
			TANK, FUEL OIL STORAGE TANK, 500,000 GALLONS	52" DIA X 32' HIGH	50.00 TN	134	65.69 /MH	8,776				8,776
			TANKS, FUEL OIL STORAGE TANK, 1,500,000 GALLONS	80" DIA X 42' HIGH	131.00 TN	350	65.69 /MH	22,994				22,994
			TANK, METAL CLEANING WASTE TREATMENT TANK, 1,000,000 GALLONS	70" DIA X 35' HIGH	83.00 TN	222	65.69 /MH	14,568				14,568
			MECHANICAL EQUIPMENT - FGD EQUIPMENT		646.00 TN	1,308	65.69 /MH	85,932				85,932
			MECHANICAL EQUIPMENT - DRY SORBENT SYSTEM		100.00 TN	203	65.69 /MH	13,302				13,302
			<b>MECHANICAL EQUIPMENT</b>			<b>4,046</b>		<b>265,807</b>				<b>265,807</b>
10.33.00			<b>MATERIAL HANDLING EQUIPMENT</b>									
			MATERIAL HANDLING EQUIPMENT - LIMESTONE/GYPSUM CLAMSHELL UNLOADER		400.00 TN	810	65.69 /MH	53,209				53,209
			MATERIAL HANDLING EQUIPMENT - LIMESTONE/GYPSUM BUCKET BARGE UNLOADER		400.00 TN	810	65.69 /MH	53,209				53,209
			MATERIAL HANDLING EQUIPMENT - COAL BUCKET BARGE UNLOADER		400.00 TN	810	65.69 /MH	53,209				53,209
			MATERIAL HANDLING EQUIPMENT - GYPSUM HANDLING SYSTEM		2,152.00 TN	4,358	65.69 /MH	286,264				286,264
			MATERIAL HANDLING EQUIPMENT - LIMESTONE HANDLING SYSTEM		733.00 TN	1,484	65.69 /MH	97,505				97,505
			MATERIAL HANDLING EQUIPMENT - COAL HANDLING SYSTEM		2,300.00 TN	4,658	65.69 /MH	305,951				305,951
			MATERIAL HANDLING EQUIPMENT - COAL HANDLING SYSTEM - COAL BLENDING SYSTEM		944.00 TN	1,912	65.69 /MH	125,573				125,573
			<b>MATERIAL HANDLING EQUIPMENT</b>			<b>14,841</b>		<b>974,920</b>				<b>974,920</b>
10.35.00			<b>PIPING</b>									
			PIPING - CIRC WATER PIPING AND TUNNELS		1.00 LS	1,020	75.99 /MH	77,510				77,510
			PIPING - DEMO BOP PIPING AND HANGERS		1.00 LS	509	65.69 /MH	33,436				33,436
			<b>PIPING</b>			<b>1,529</b>		<b>110,946</b>				<b>110,946</b>
10.41.00			<b>ELECTRICAL EQUIPMENT</b>									
			MISCELLANEOUS ELECTRICAL EQUIPMENT		100.00 TN	267	65.69 /MH	17,552				17,552
			MISCELLANEOUS ELECTRICAL EQUIPMENT, TRANSFORMERS		406.60 TN	1,086	65.69 /MH	71,368				71,368
			<b>ELECTRICAL EQUIPMENT</b>			<b>1,354</b>		<b>88,920</b>				<b>88,920</b>
10.42.00			<b>RACEWAY, CABLE TRAY, &amp; CONDUIT</b>									
			RACEWAY, CABLE TRAY, & CONDUIT - RACEWAY, CABLE TRAY, & CONDUIT		396.00 TN	40	65.69 /MH	2,601				2,601
			<b>RACEWAY, CABLE TRAY, &amp; CONDUIT</b>			<b>40</b>		<b>2,601</b>				<b>2,601</b>
10.86.00			<b>WASTE</b>									
			WASTE - OIL CONTAMINATED FILL	ASSUMED 5 FEET DEEP IS CONTAMINATED	9,204.00 CY	10,916	168.91 /MH	1,843,812	0			1,843,812
			WASTE - METAL CLEANING TANK BERMED AREA CONTAMINATED FILL	ASSUMED 5 FEET DEEP IS CONTAMINATED	3,703.00 CY	4,392	168.91 /MH	741,812	0			741,812
			WASTE - BUILDING WASTE - COMMON BLDGS		3,636.00 CY	364	65.69 /MH	23,885	36,360			60,245
			<b>WASTE</b>			<b>15,671</b>		<b>2,609,509</b>	<b>36,360</b>			<b>2,645,869</b>
			<b>WHOLE PLANT DEMOLITION</b>			<b>211,270</b>		<b>19,483,672</b>	<b>11,020,976</b>	<b>4,400,000</b>		<b>34,904,648</b>
18.00.00			<b>SCRAP VALUE MIXED STEEL</b>									
			<b>SCRAP VALUE MIXED STEEL</b>									

AMERICAN ELECTRIC POWER  
Decommissioning Study Mitchell Plant  
Units 1, 2 and Common Facilities

ESTIMATE NO.: 31982B  
PROJECT NO.: 11488-066  
ISSUE DATE: 3/20/2013  
PREP/REV.: RCK/JAE  
APPROVED: MNO



Area	Group	Phase	Description	Notes	Quantity	Man Hours	Crew Rate	Labor Cost	Material Cost	Subcontract Cost	Process Equipment Cost	Total Cost			
	18.10.00		MIXED STEEL MIXED STEEL, DEWATERING HYDROCLONE FEED TANK A, 850,800 GALLON MIXED STEEL, DEWATERING HYDROCLONE FEED TANK B, 850,800 GALLON MIXED STEEL, RECLAIM WATER TANK A, 351,000 GALLONS MIXED STEEL, RECLAIM WATER TANK B, 351,000 GALLONS MIXED STEEL, REAGENT SLURRY STORAGE TANK A, 457,920 GALLONS MIXED STEEL, REAGENT SLURRY STORAGE TANK B, 457,920 GALLONS MIXED STEEL, MAINTENANCE STORAGE TANK, 1,417,000 GALLONS MIXED STEEL, FGD SERVICE WATER TANK, 399,480 GALLONS MIXED STEEL, UREA FEED TANK, 200,000 GALLONS MIXED STEEL, FUEL OIL STORAGE TANK, 500,000 GALLONS MIXED STEEL, FUEL OIL STORAGE TANK, 1,500,000 GALLONS MIXED STEEL, METAL CLEANING WASTE TREATMENT TANK, 1,000,000 GALLONS MIXED STEEL, FGD BLDG FRAMING & GIRTS MIXED STEEL, DEWATERING AREA BLDG FRAMING & GIRTS MIXED STEEL, REAGENT PREP AREA FRAMING & GIRTS MIXED STEEL, SERVICE BLDG FRAMING & GIRTS MIXED STEEL REBAR RECOVERY FROM OUTBUILDINGS FOUNDATIONS & MISC FDNS MIXED STEEL REBAR RECOVERY FROM 1200' CHIMNEY MIXED STEEL, STEEL LINER FROM 1200' CHIMNEY MISC EQUIPMENT, REINFORCING MIXED STEEL REBAR RECOVERY FROM 1000' CHIMNEY EQUIPMENT MIXED STEEL, MECHANICAL EQUIPMENT - FGD EQUIPMENT MIXED STEEL, MATERIAL HANDLING EQUIPMENT - LIMESTONE/GYPSUM GYPSUM CLAMSHELL UNLOADER MIXED STEEL, MATERIAL HANDLING EQUIPMENT - LIMESTONE/GYPSUM BUCKET BARGE UNLOADER MIXED STEEL, MATERIAL HANDLING EQUIPMENT - COAL BUCKET BARGE UNLOADER MIXED STEEL, MATERIAL HANDLING EQUIPMENT - GYPSUM HANDLING SYSTEM MIXED STEEL, MATERIAL HANDLING EQUIPMENT - LIMESTONE HANDLING SYSTEM MIXED STEEL, MATERIAL HANDLING EQUIPMENT - COAL HANDLING SYSTEM, COMMON MIXED STEEL, MECHANICAL EQUIPMENT - DRY SORBENT SYSTEM MIXED STEEL, 228000 TF OF RAILROAD TRACK MIXED STEEL, DEMOLITION - PULL SHEET PILE & CAP FOR BARGE CELLS MIXED STEEL, RACEWAY, CABLE TRAY, & CONDUIT - MIXED STEEL, MISCELLANEOUS ELECTRICAL EQUIPMENT, TRANSFORMERS <b>MIXED STEEL</b>												
					-123.00 TN		65.97 /MH	-	-	-	(35,301)	(35,301)			
					-123.00 TN		65.97 /MH	-	-	-	(35,301)	(35,301)			
					-60.00 TN		65.97 /MH	-	-	-	(17,220)	(17,220)			
					-60.00 TN		65.97 /MH	-	-	-	(17,220)	(17,220)			
					-64.00 TN		65.97 /MH	-	-	-	(18,368)	(18,368)			
					-64.00 TN		65.97 /MH	-	-	-	(18,368)	(18,368)			
					-123.00 TN		65.97 /MH	-	-	-	(37,023)	(37,023)			
					-37.00 TN		65.97 /MH	-	-	-	(10,619)	(10,619)			
					-25.00 TN		65.97 /MH	-	-	-	(7,175)	(7,175)			
					-50.00 TN		65.97 /MH	-	-	-	(14,350)	(14,350)			
					-131.00 TN		65.97 /MH	-	-	-	(37,597)	(37,597)			
					-83.00 TN		65.97 /MH	-	-	-	(23,821)	(23,821)			
					-1,050.00 TN		65.97 /MH	-	-	-	(301,350)	(301,350)			
					-400.00 TN		65.97 /MH	-	-	-	(114,800)	(114,800)			
					-414.00 TN		65.97 /MH	-	-	-	(118,818)	(118,818)			
					-520.00 TN		65.97 /MH	-	-	-	(149,240)	(149,240)			
					-363.00 TN		65.97 /MH	-	-	-	(104,181)	(104,181)			
					-690.00 TN		65.97 /MH	-	-	-	(195,160)	(195,160)			
					-1,005.00 TN		65.97 /MH	-	-	-	(288,435)	(288,435)			
					-72.00 TN		65.97 /MH	-	-	-	(20,664)	(20,664)			
					-730.00 TN		65.97 /MH	-	-	-	(209,510)	(209,510)			
					-646.00 TN		65.97 /MH	-	-	-	(185,402)	(185,402)			
					-400.00 TN		65.97 /MH	-	-	-	(114,800)	(114,800)			
					-400.00 TN		65.97 /MH	-	-	-	(114,800)	(114,800)			
					-400.00 TN		65.97 /MH	-	-	-	(114,800)	(114,800)			
					-725.00 TN		65.97 /MH	-	-	-	(208,936)	(208,936)			
					-2,158.00 TN		65.97 /MH	-	-	-	(619,346)	(619,346)			
					-3,244.00 TN		65.97 /MH	-	-	-	(931,028)	(931,028)			
					-100.00 TN		65.97 /MH	-	-	-	(28,700)	(28,700)			
					-8,388.00 TN		65.97 /MH	-	-	-	(2,407,356)	(2,407,356)			
					-654.00 TN		65.97 /MH	-	-	-	(187,698)	(187,698)			
					-396.00 TN		65.97 /MH	-	-	-	(113,652)	(113,652)			
					-222.60 TN		65.97 /MH	-	-	-	(63,886)	(63,886)			
											<b>(6,864,925)</b>	<b>(6,864,925)</b>			
	18.30.00		COPPER COPPER SCRAP CABLE & COMMON COPPER, MISCELLANEOUS ELECTRICAL EQUIPMENT, TRANSFORMERS COPPER		-200.00 TN		65.97 /MH	-	-	-	(1,218,200)	(1,218,200)			
					-92.00 TN		65.97 /MH	-	-	-	(560,372)	(560,372)			
											<b>(1,778,572)</b>	<b>(1,778,572)</b>			



**AMERICAN ELECTRIC POWER  
Decommissioning Study Mitchell Plant  
Units 1, 2 and Common Facilities**

ESTIMATE NO.: 31982B  
PROJECT NO.: 11488-066  
ISSUE DATE: 3/20/2013  
PREP/REV.: RCK/JAE  
APPROVED: MNO

Area	Group	Phase	Description	Notes	Quantity	Man Hours	Crew Rate	Labor Cost	Material Cost	Subcontract Cost	Process Equipment Cost	Total Cost
<b>SCRAP VALUE</b>												
<b>Unit 1</b>			<b>Common</b>			<b>211,270</b>		<b>19,483,672</b>	<b>11,020,976</b>	<b>4,400,000</b>	<b>(8,643,497)</b>	<b>26,261,150</b>
	10.00.00		<b>WHOLE PLANT DEMOLITION</b>									
		10.22.00	CONCRETE									
			BUILDING PAD FOUNDATION 110 LB/CY, UNIT 1 COOLING		8,840.00	CY	75.99	/MH	755,721	-	-	755,721
			TOWER BASIN		9,200.00	CY	75.99	/MH	418,766	-	-	418,766
			ELEVATED FOUNDATION 110 CY, UNIT 1 COOLING		2,000.00	CY	75.99	/MH	91,036	-	-	91,036
			TOWER SHELL		7,778.00	CY	75.99	/MH	1,063,890	-	-	1,063,890
			ELEVATED FOUNDATION, UNIT 1 TURBINE AND BLR		14,000		75.99	/MH	2,329,413	-	-	2,329,413
			BLDG		30,654							
			TURBINE PEDESTAL FOUNDATION 140 LB/CY, UNIT 1									
			<b>CONCRETE</b>									
		10.23.00	STEEL									
			DUCTWORK W/BRECHINGS AND STEEL SUPPORTS, UNIT 1		1,922.00	TN	65.97	/MH	338,794	-	-	338,794
			<b>STEEL</b>									
					5,136				338,794	-	-	338,794
		10.24.00	<b>ARCHITECTURAL</b>									
			BUILDING, UNIT 1 POWER BLOCK, INCLUDING TURBINE		8,500,000.00	CF	75.09	/MH	6,382,650	-	-	6,382,650
			BLDG, BOILER HOUSE PREHTR FAN ENCLOSURE & COAL BUNKERS									
			<b>ARCHITECTURAL</b>									
					85,000				6,382,650	-	-	6,382,650
		10.31.00	<b>MECHANICAL EQUIPMENT</b>									
			MAIN BOILER AND APPURTENANCES, UNIT 1		12,160.00	TN	71.44	/MH	1,759,139	-	-	1,759,139
			FD & ID FANS, UNIT 1		6,135.00	TN	71.44	/MH	887,526	-	-	887,526
			FEEDWATER DEARATING EQUIPMENT, UNIT 1		435	TN	65.69	/MH	28,600	-	-	28,600
			TANK, UNIT 1 CLEAN CONDENSATE TANK, 753,000 GALLONS		77.00	TN	65.69	/MH	13,515	-	-	13,515
			TANK, UNIT 1 CONTAMINATED CONDENSATE TANK, 500,000 GALLONS		50.00	TN	65.69	/MH	8,776	-	-	8,776
			TANK, UNIT 1 EQUALIZATION TANK, 220,600 GALLONS		80	TN	65.69	/MH	5,266	-	-	5,266
			TANK, UNIT 1 ABSORBER REACTION TANK		462.00	TN	65.69	/MH	81,092	-	-	81,092
			WATER TREATMENT DEMINERALIZATION & CHEMICAL TREATMENT EQUIPMENT, UNIT 1		269.00	TN	65.69	/MH	35,783	-	-	35,783
			TURBINE GENERATOR, UNIT 1		4,141	TN	65.69	/MH	272,031	-	-	272,031
			CONDENSER, UNIT 1		2,359	TN	65.69	/MH	154,971	-	-	154,971
			CIRCULATING WATER EQUIPMENT, UNIT 1		980	TN	65.69	/MH	64,383	-	-	64,383
			COOLING TOWER, UNIT 1 REMOVE FILL		690,000.00	CF	65.69	/MH	271,957	-	-	271,957
			MECHANICAL EQUIPMENT - UNIT 1 MISC. POWER PLANT EQUIPMENT		613.00	TN	65.69	/MH	81,543	-	-	81,543
			MECHANICAL EQUIPMENT - DEMOLISH UNIT 1 TURBINE ROOM OVERHEAD CRANE		1.00	LS	65.69	/MH	20,692	-	-	20,692
			MECHANICAL EQUIPMENT - UNIT 1 DUST COLLECTORS		269.00	TN	65.69	/MH	35,783	-	-	35,783
			MECHANICAL EQUIPMENT - PRECIPITATORS UNIT 1		2,025	TN	65.69	/MH	133,022	-	-	133,022
			MECHANICAL EQUIPMENT - SCR UNIT 1		664.00	TN	65.69	/MH	88,327	-	-	88,327
			<b>MECHANICAL EQUIPMENT</b>		56,772				3,942,404	-	-	3,942,404
		10.33.00	<b>MATERIAL HANDLING EQUIPMENT</b>									
			MATERIAL HANDLING EQUIPMENT - UNIT 1 ASH HANDLING EQUIPMENT		377.00	TN	65.69	/MH	50,149	-	-	50,149
			MATERIAL HANDLING EQUIPMENT - UNIT 1 FUEL EQUIPMENT, CONVEYORS INCL TRUSSES & BENTS		1,432.00	TN	65.69	/MH	190,488	-	-	190,488
			<b>MATERIAL HANDLING EQUIPMENT</b>		3,663				240,637	-	-	240,637
		10.34.00	HVAC									
			HVAC - UNIT 1		1.00	LS	65.69	/MH	111,345	-	-	111,345
			<b>HVAC</b>		1,695				111,345	-	-	111,345
		10.35.00	PIPING									
			PIPING - UNIT 1 BOILER PLANT AND TURBINE PIPING		2,690.00	TN	65.69	/MH	375,677	-	-	375,677



**AMERICAN ELECTRIC POWER**  
Decommissioning Study Mitchell Plant  
Units 1, 2 and Common Facilities

ESTIMATE NO.: 31982B  
PROJECT NO.: 11488-066  
ISSUE DATE: 3/20/2013  
PREP./REV.: RCK/JAE  
APPROVED: MNO



Area	Group	Phase	Description	Notes	Quantity	Man Hours	Crew Rate	Labor Cost	Material Cost	Subcontract Cost	Process Equipment Cost	Total Cost		
Unit 2	10.00.00	18.20.00	STAINLESS STEEL		-462.00 TN		65.97 /MH	-	-	-	(645,414)	(645,414)		
			STAINLESS STEEL, TANK, UNIT 1 ABSORBER REACTION TANK											
			STAINLESS STEEL									(645,414)	(645,414)	
Unit 1	10.00.00	18.30.00	COPPER		-373.00 TN		65.97 /MH	-	-	-	(2,271,943)	(2,271,943)		
			STAINLESS STEEL		-200.00 TN		65.97 /MH	-	-	-	(1,218,200)	(1,218,200)		
			COPPER, UNIT 1 CONDENSER CU/NI TUBES		-53.00 TN		65.97 /MH	-	-	-	-	(322,823)	(322,823)	
			COPPER, GENERATOR BUS TRANSFORMERS UNIT 1											
			MAIN POWER TRANSFORMER											
			COPPER, STATION AUXILIARY TRANSFORMERS, UNIT 1											
			MAIN AUX TRANSFORMERS											
			COPPER											
			SCRAP VALUE										(3,812,966)	(3,812,966)
			Unit 1					190,383		13,835,429	57,550		(14,999,173)	(1,106,194)
			Unit 2	10.00.00	10.22.00	WHOLE PLANT DEMOLITION								
CONCRETE		8,840.00 CY				9,945	75.99 /MH	755,721	-	-	-	-	755,721	
BUILDING PAD FOUNDATION 110 LB/CY, UNIT 2 COOLING TOWER BASIN		9,200.00 CY				5,511	75.99 /MH	418,766	-	-	-	-	418,766	
ELEVATED FOUNDATION 110 CY, UNIT 2 COOLING TOWER SHELL		2,000.00 CY				1,198	75.99 /MH	91,036	-	-	-	-	91,036	
ELEVATED FOUNDATION, UNIT 2 TURBINE AND BLR BLDGS		7,775.00 CY				14,000	75.99 /MH	1,063,890	-	-	-	-	1,063,890	
TURBINE PEDESTAL FOUNDATION 140 LB/CY, UNIT 2 CONCRETE		30,654				30,654		2,329,413	-	-	-	-	2,329,413	
STEEL		1,022.00 TN				2,731	65.97 /MH	180,150	-	-	-	-	180,150	
DUCTWORK W/BREECHINGS AND STEEL SUPPORTS, UNIT 2		2,731				2,731		180,150	-	-	-	-	180,150	
STEEL		85,000.000 CF				85,000	75.09 /MH	6,382,650	-	-	-	-	6,382,650	
ARCHITECTURAL		85,000				85,000		6,382,650	-	-	-	-	6,382,650	
Unit 2	10.31.00	10.24.00				ARCHITECTURAL		12,160.00 TN	24,624	71.44 /MH	1,759,139	-	-	-
			BUILDING, UNIT 2 POWER BLOCK, INCLUDING TURBINE BLDG, BOILER HOUSE PREHTR FAN ENCLOSURE & COAL BUNKERS		6,135.00 TN	12,423	71.44 /MH	887,526	-	-	-	-	887,526	
			ARCHITECTURAL		215.00 TN	435	65.69 /MH	28,600	-	-	-	-	28,600	
			MECHANICAL EQUIPMENT		77.00 TN	206	65.69 /MH	13,515	-	-	-	-	13,515	
			TANK, UNIT 2 CLEAN CONDENSATE TANK, 753,000 GALLONS		50.00 TN	134	65.69 /MH	8,776	-	-	-	-	8,776	
			TANK, UNIT 2 CONTAMINATED CONDENSATE TANK, 500,000 GALLONS		30.00 TN	80	65.69 /MH	5,266	-	-	-	-	5,266	
			TANK, UNIT 2 EQUALIZATION TANK, 220,600 GALLONS		462.00 TN	1,234	65.69 /MH	81,092	-	-	-	-	81,092	
			TANK, UNIT 2 ABSORBER REACTION TANK		269.00 TN	545	65.69 /MH	35,783	-	-	-	-	35,783	
			WATER TREATMENT DEMINERALIZATION & CHEMICAL TREATMENT EQUIPMENT, UNIT 2		2,045.00 TN	4,141	65.69 /MH	272,031	-	-	-	-	272,031	
			TURBINE GENERATOR, UNIT 2		1,165.00 TN	2,359	65.69 /MH	154,971	-	-	-	-	154,971	
			CONDENSER, UNIT 2		484.00 TN	980	65.69 /MH	64,383	-	-	-	-	64,383	
CIRCULATING WATER EQUIPMENT, UNIT 2		690,000.000 CF	4,140	65.69 /MH	271,957	-	-	-	-	271,957				
COOLING TOWER, UNIT 2 REMOVE FILL		613.00 TN	1,241	65.69 /MH	81,543	-	-	-	-	81,543				
MECHANICAL EQUIPMENT - UNIT 2 MISC. POWER PLANT EQUIPMENT		1.00 LS	315	65.69 /MH	20,692	-	-	-	-	20,692				
MECHANICAL EQUIPMENT - DEMOLISH UNIT 2 TURBINE ROOM OVERHEAD CRANE		269.00 TN	545	65.69 /MH	35,783	-	-	-	-	35,783				
MECHANICAL EQUIPMENT - UNIT 2 DUST COLLECTORS		1,000.00 TN	2,025	65.69 /MH	133,022	-	-	-	-	133,022				
MECHANICAL EQUIPMENT - PRECIPITATORS UNIT 2		664.00 TN	1,345	65.69 /MH	88,327	-	-	-	-	88,327				
MECHANICAL EQUIPMENT - SCR UNIT 2		56,772	56,772		3,942,404	-	-	-	-	3,942,404				
MECHANICAL EQUIPMENT					3,942,404	-	-	-	-	3,942,404				

**AMERICAN ELECTRIC POWER**  
Decommissioning Study Mitchell Plant  
Units 1, 2 and Common Facilities

ESTIMATE NO.: 31982B  
PROJECT NO.: 11488-066  
ISSUE DATE: 3/20/2013  
PREP/REV.: RCK/JAE  
APPROVED: MNO



Area	Group	Phase	Description	Notes	Quantity	Man Hours	Crew Rate	Labor Cost	Material Cost	Subcontract Cost	Process Equipment Cost	Total Cost
10.33.00			<b>MATERIAL HANDLING EQUIPMENT</b> MATERIAL HANDLING EQUIPMENT - UNIT 2 ASH HANDLING EQUIPMENT MATERIAL HANDLING EQUIPMENT - UNIT 2 FUEL EQUIPMENT, CONVEYORS INCL TRUSSES & BENTS <b>MATERIAL HANDLING EQUIPMENT</b>		377.00 TN 1,432.00 TN 3,663	763 2,900 3,663	65.69 /MH 65.69 /MH	50,149 190,488 240,637				50,149 190,488 240,637
10.34.00			<b>HVAC</b> HVAC - UNIT 2 HVAC		1.00 LS 1,695	1,695 1,695	65.69 /MH	111,345 111,345				111,345 111,345
10.35.00			<b>PIPING</b> PIPING - UNIT 2 BOILER PLANT AND TURBINE PIPING PIPING		2,690.00 TN 5,719	5,719 5,719	65.69 /MH	375,677 375,677				375,677 375,677
10.41.00			<b>ELECTRICAL EQUIPMENT</b> GENERATOR BUS TRANSFORMERS UNIT 2 MAIN POWER TRANSFORMER STATION AUXILIARY TRANSFORMERS, UNIT 2 MAIN AUX TRANSFORMERS <b>ELECTRICAL EQUIPMENT</b>		328.00 TN 109.00 TN 1,168	876 291 1,168	65.69 /MH 65.69 /MH	57,572 19,132 76,704				57,572 19,132 76,704
10.86.00			<b>WASTE</b> WASTE - UNIT 2 COOLING TOWER FILL WASTE - USER DEFINED - UNIT 2 BLDG WASTE WASTE		2,555.00 CY 3,200.00 CY 576	256 320 576	65.69 /MH 65.69 /MH	16,784 21,021 37,805	25,550 32,000 57,550			42,334 53,021 95,355
			<b>WHOLE PLANT DEMOLITION</b>			<b>187,978</b>		<b>13,676,784</b>	<b>57,550</b>			<b>13,734,334</b>
18.00.00			<b>SCRAP VALUE</b> MIXED STEEL MIXED STEEL, UNIT 2 CLEAN CONDENSATE TANK, 753,000 GALLONS MIXED STEEL, UNIT 2 CONTAMINATED CONDENSATE TANK, 500,000 GALLONS MIXED STEEL, UNIT 2 EQUALIZATION TANK, 220,600 GALLONS MIXED STEEL, UNIT 2 POWER BLOCK, INCLUDING TURBINE BLDG., BOILER HOUSE PREHTR FAN ENCLOSURE & COAL BUNKERS MIXED STEEL, REBAR RECOVERED, TURBINE PEDESTAL FOUNDATION 140 LB/CY, UNIT 2 MIXED STEEL, UNIT 2 COOLING TOWER REINFORCING RECOVERED, MIXED STEEL, ELEVATED FOUNDATION, UNIT 2 TURBINE AND BLR BLDGS, REINFORCING MIXED STEEL, MAIN BOILER AND APPURTENANCES, UNIT 2 MIXED STEEL, FD & ID FANS, UNIT 2 MIXED STEEL, DUCTWORK W/BREACHINGS AND STEEL SUPPORTS, UNIT 2 MIXED STEEL, FEEDWATER DEARATING EQUIPMENT, UNIT 2 MIXED STEEL, WATER TREATMENT DEMINERALIZATION & CHEMICAL TREATMENT EQUIPMENT, UNIT 2 MIXED STEEL, UNIT 2 CONDENSER MIXED STEEL, MATERIAL HANDLING EQUIPMENT - UNIT 2 ASH HANDLING EQUIPMENT MIXED STEEL, MATERIAL HANDLING EQUIPMENT - UNIT 2 FUEL EQUIPMENT, CONVEYORS INCL TRUSSES & BENTS MIXED STEEL, TURBINE GENERATOR, UNIT 2 MIXED STEEL, CIRCULATING WATER EQUIPMENT, UNIT 2		-77.00 TN -50.00 TN -30.00 TN -4,250.00 TN -467.00 TN -440.00 TN -110.00 TN -12,160.00 TN -6,135.00 TN -1,022.00 TN -215.00 TN -269.00 TN -792.00 TN -377.00 TN -1,432.00 TN -2,045.00 TN -484.00 TN		65.97 /MH 65.97 /MH 65.97 /MH 65.97 /MH 65.97 /MH 65.97 /MH 65.97 /MH 65.97 /MH 65.97 /MH 65.97 /MH 65.97 /MH 65.97 /MH 65.97 /MH 65.97 /MH 65.97 /MH 65.97 /MH 65.97 /MH 65.97 /MH 65.97 /MH			(22,099) (14,350) (8,610) (1,219,750) (134,029) (126,280) (31,570) (3,489,920) (1,760,745) (283,314) (61,705) (77,203) (227,304) (108,199) (410,984) (586,915) (138,908)		



**AMERICAN ELECTRIC POWER**  
Decommissioning Study Mitchell Plant  
Units 1, 2 and Common Facilities

ESTIMATE NO.: 31682B  
PROJECT NO.: 11488-066  
ISSUE DATE: 3/20/2013  
PREP/REV.: RCK/JAE  
APPROVED: MNO

Area	Group	Phase	Description	Notes	Quantity	Man Hours	Crew Rate	Labor Cost	Material Cost	Subcontract Cost	Process Equipment Cost	Total Cost
	18.10.00		MIXED STEEL MIXED STEEL MECHANICAL EQUIPMENT - UNIT 2 MISC. POWER PLANT EQUIPMENT MIXED STEEL MECHANICAL EQUIPMENT - UNIT 2 DUST COLLECTORS MIXED STEEL, PIPING - UNIT 2 BOILER PLANT AND TURBINE PIPING MIXED STEEL MECHANICAL EQUIPMENT - PRECIPITATORS UNIT 2 MIXED STEEL GENERATOR BUS TRANSFORMERS UNIT 2 MAIN POWER TRANSFORMERS MIXED STEEL, STATION AUXILIARY TRANSFORMERS, UNIT 2 MAIN AUX TRANSFORMERS MIXED STEEL MECHANICAL EQUIPMENT - SCR UNIT 2 MIXED STEEL		-613.00 TN -269.00 TN -2,690.00 TN -1,000.00 TN -180.50 TN -56.00 TN -664.00 TN		65.97 /MH 65.97 /MH 65.97 /MH 65.97 /MH 65.97 /MH 65.97 /MH 65.97 /MH	- - - - - - -	- - - - - - -	- - - - - - -	(175,931) (77,203) (772,030) (287,000) (51,804) (16,072) (190,568)	(10,282,493) (645,414) (645,414) (2,271,943) (898,423) (322,823) (3,493,189) <b>(14,421,095)</b>
	18.20.00		STAINLESS STEEL STAINLESS STEEL TANK, UNIT 2 ABSORBER REACTION TANK STAINLESS STEEL		-462.00 TN		65.97 /MH	-	-	-	(645,414)	(645,414)
	18.30.00		COPPER COPPER, UNIT 2 CONDENSER CU / NI TUBES COPPER, GENERATOR BUS TRANSFORMERS UNIT 2 MAIN POWER TRANSFORMER COPPER, STATION AUXILIARY TRANSFORMERS, UNIT 2 MAIN AUX TRANSFORMERS COPPER		-373.00 TN -147.50 TN -53.00 TN		65.97 /MH 65.97 /MH 65.97 /MH	- - -	- - -	- - -	(2,271,943) (898,423) (322,823)	(3,493,189) <b>(14,421,095)</b>
			<b>SCRAP VALUE</b>					<b>13,676,784</b>	<b>57,550</b>		<b>(14,421,095)</b>	<b>(686,761)</b>
			<b>Unit 2</b>			<b>187,978</b>		<b>13,676,784</b>	<b>57,550</b>		<b>(14,421,095)</b>	<b>(686,761)</b>