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**SOAH DOCKET NO. 473-22-1073
PUC DOCKET NO. 52485**

**APPLICATION OF SOUTHWESTERN PUBLIC SERVICE COMPANY TO § BEFORE THE STATE OFFICE
AMEND ITS CERTIFICATE OF § OF
CONVENIENCE AND NECESSITY TO § ADMINISTRATIVE HEARINGS
CONVERT HARRINGTON §
GENERATING STATION FROM COAL §
TO NATURAL GAS §**

**SOUTHWESTERN PUBLIC SERVICE COMPANY'S
RESPONSE TO SIERRA CLUB'S
FOURTH REQUEST FOR INFORMATION
QUESTION NOS. 4-1 THROUGH 4-7**

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EXHIBITS ATTACHED:

Exhibit SPS-SC 4-4(b) (<i>non-native format</i>)	13
Exhibit SPS-SC 4-5 (<i>non-native format</i>)	28
Exhibit SPS-SC 4-6 (<i>non-native format</i>)	35

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Southwestern Public Service Company (“SPS”) files this response to the Sierra Club’s Fourth Request for Information, Question Nos. 4-1 through 4-7. SPS has provided notice, by email, to all parties that SPS’s Responses to Sierra Club’s Fourth Request for Information and accompanying exhibits (excluding voluminous and exhibits provided pursuant to the protective order) have been filed with the Commission and are available for download from the Commission’s Interchange website.

I. WRITTEN RESPONSES

SPS’s written responses to Sierra Club’s Fourth Request for Information are attached and incorporated by reference. Each response is stated on or attached to a separate page on which the request has been restated. SPS’s responses are made in the spirit of cooperation without waiving SPS’s right to contest the admissibility of any of these matters at hearing. In accordance with 16 Tex. Admin. Code § 22.144(c)(2)(A) (“TAC”), each response lists the preparer or person under whose direct supervision the response was prepared and any sponsoring witness. When SPS provides certain information sought by the request while objecting to the provision of other

information, it does so without prejudice to its objection in the interests of narrowing discovery disputes under 16 TAC § 22.144(d)(5). Pursuant to 16 TAC § 22.144(c)(2)(F), SPS stipulates that its responses may be treated by all parties as if they were made under oath.

II. INSPECTIONS

If responsive documents are more than 100 pages but less than eight linear feet in length, the response will indicate that the attachment is voluminous (“(V)”) and, pursuant to 16 TAC § 22.144(h)(2), the exhibit will be made available for inspection at SPS’s voluminous room at 600 Congress Avenue, Suite 2000, Austin, Texas 78701; telephone number (512) 721-2700.

If a response or the responsive documents are provided pursuant to the protective order in this docket, the response will indicate that it or the attachment is either confidential (“CONF”) or Highly Sensitive (“HS”) as appropriate under the protective order. Access to Confidential and Highly Sensitive materials will be available on Coffin Renner’s file sharing link to all parties that have signed and filed the certification under the protective order entered in this docket. Confidential and Highly Sensitive responsive documents will also be made available for inspection at SPS’s voluminous room, unless they form a part of a response that exceeds eight linear feet in length; then they will be available at their usual repository in accordance with the following paragraph. Please call in advance for an appointment to ensure that there is sufficient space to accommodate your inspection.

If responsive documents exceed eight linear feet in length, the response will indicate that the attachment is subject to the FREIGHT CAR DOCTRINE, and, pursuant to 16 TAC § 22.144(h)(3), the attachment will be available for inspection at its usual repository, SPS's offices in Austin, Texas, unless otherwise indicated. SPS requests that parties wishing to inspect this material provide at least 48-hour notice of their intent by contacting Stephanie Tanner at Coffin Renner L.L.P. PC, 1011 West 31st Street, Austin, Texas 78705; telephone number (512) 879-0900; facsimile transmission number (512) 879-0912; email address stephanie.tanner@crtxlaw.com. Inspections will be scheduled to accommodate all requests with as little inconvenience to the requesting party and to SPS's operations as possible.

Respectfully submitted,



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ATTORNEYS FOR
SOUTHWESTERN PUBLIC SERVICE COMPANY

RESPONSES

QUESTION NO. Sierra Club 4-1:

Regarding the fuel cost EnCompass inputs for the Harrington Analysis provided in SPS Response to SC 1-3(i):

- a. Explain what the fuel delivery cost adder at Harrington represents.
- b. Explain how the fuel delivery cost adder that SPS attaches to the Harrington units was developed.
- c. Explain why the fuel delivery cost adder modeled for Harrington is higher than the fuel delivery cost for a new combustion turbine.
- d. Explain what the commodity charge at Harrington represents.
- e. Explain how the commodity charge that SPS attaches to the Harrington units was developed.

RESPONSE:

- a. SPS confirmed that Sierra Club's question refers to the EnCompass cost input 'Gas.Natural.PEPL.Cost'. The cost input 'Gas.Natural.PEPL.Cost' represents the Panhandle Eastern Pipe Line ("PEPL") natural gas price forecast.
- b. Please refer to pages 14 and 15 of the Direct Testimony of Mr. Ben R. Elsey for discussion of the natural gas price forecast.
- c. SPS assumed new gas combustion turbines will be geographically located close to SPS's load growth in South East New Mexico, therefore SPS used the WAHA natural gas price forecast. Harrington, which is located just North of Amarillo, was modeled using the PEPL natural gas forecast. Therefore, the difference between natural gas price forecast at Harrington and a new combustion turbine is the difference between gas prices at PEPL and WAHA.
- d. The commodity charge represents the variable cost on the upstream pipelines for delivery of each dekatherm of gas to the proposed Harrington plant pipeline.
- e. The commodity charge reflects the maximum tariff rates in effect beginning December 2018 on the El Paso Natural Gas pipeline system for delivery to the proposed Harrington plant pipeline.

Preparers: Ben R. Elsey, Jeffrey Hild
Sponsor: Ben R. Elsey

QUESTION NO. Sierra Club 4-2:

Regarding the EnCompass inputs for new battery storage resources for the Harrington Analysis provided in SPS Response to SC 1-3(i):

- a. Explain how SPS modeled the cost for new (non-RFP) battery storage resources in EnCompass.
- b. Explain why SPS modeled the entire cost of battery storage as an FOM stream.
- c. Provide all workpapers and analysis that shows how the FOM cost stream for battery storage in EnCompass was calculated.
- d. Provide all capital cost, VOM and FOM input assumptions for new battery storage resources.

RESPONSE:

- a. SPS calculated the economic carrying charge for new (non-RFP) battery storage resources and then modeled in EnCompass as a single fixed cost stream. Please refer to the Exhibit SPS-TIEC 2-7.
- b. Battery energy storage system resources are typically proposed and evaluated as a single levelized cost of storage (presented as a \$/kW-month or a \$/kW-year). Therefore, SPS models batteries as a single cost stream so the costs can easily be converted into this format. SPS takes the same approach when modeling new renewable resources such as wind and solar generation. Again, these resources are typically proposed and evaluated as a single levelized cost of energy, not individual components such as variable O&M and fixed O&M.
- c. Please refer to Exhibit SPS-TIEC 2-7.
- d. Please refer to subpart (c).

Preparer: Ben R. Elsey
Sponsor: Ben R. Elsey

QUESTION NO. Sierra Club 4-3:

Regarding the EnCompass for new Combustion Turbine resources for the Harrington Analysis provided in SPS Response to SC 1-3(i):

- a. Explain how the capital cost for new CTs resources was developed.
- b. Provide all resources used to develop the capital cost trajectory for new CT resources.
- c. Provide all workbooks used to develop the capital costs for new CT resources modeled in EnCompass.

RESPONSE:

- a. SPS developed the capital cost estimates for combustion turbines internally. When developing the estimates, SPS relied upon its experience constructing, owning, and operating combustion turbine generators (e.g. Jones unit 3 and Jones unit 4) and based on turbine pricing from the manufacturer.
- b. SPS applied its standard inflation rate for new combustion turbine resources and did not develop any specific capital cost trajectory estimates. It is worth noting that combustion turbine pricing, which represents the single largest cost component, has been relatively flat in recent years.
- c. Please refer to Exhibit SPS-TIEC 1-6.

Preparer: Ben R. Elsey
Sponsor: Ben R. Elsey

QUESTION NO. Sierra Club 4-4

Refer to SPS Response to SC 3-15(c), Exhibit SPS-SC 3-15(c).

- a. Confirm that this attachment continues all capital expenditures incurred at Harrington between 2005 and 2020, and not just those items relating to coal handling equipment and operations.
- b. Indicate which capital expenditure items are related to coal handling equipment and operations at Harrington that will be discontinued if the plant converts to operate on gas.

RESPONSE:

- a. SPS confirms that Exhibit SPS-SC 3-15(c) includes all capital expenditures, not just the coal handling equipment and operations.
- b. Please refer to Exhibit SPS-SC-4-4(b). The capital expenditures which will be discontinued if the plant converts to operate on gas are highlighted in yellow.

Preparer: Danelle Heidingsfelder
Sponsor: Mark Lytal

QUESTION NO. Sierra Club 4-5:

Refer to SPS Response to SC 3-15(b). Provide SPS's actual capital expenditures for its steam gas plants incurred each year between 2000 and 2020, including the total amounts by year for each facility.

RESPONSE:

Please refer to Exhibit SPS-SC 4-5.

Preparer: Danelle Heidingsfelder

Sponsor: Mark Lytal

QUESTION NO. Sierra Club 4-6:

Regarding the modeled capacity factors that SPS modeled for Harrington after the units converted to operate on gas in SPS Response to SC 1-3(i).

- a. Explain why Harrington operates at such a low capacity factor after converting to operate on gas.
- b. Explain why the capacity factor is so much lower at Harrington after it converts to operate on gas than before it converts to operate on gas.
- c. State whether the Company plans to operate the plant at levels modeled in the Harrington Analysis.
- d. Provide all reports, internal communication, and presentations discussing the utilization of Harrington after it is converted to operate on gas.

RESPONSE:

- a. Please refer to Section VI of the Rebuttal Testimony of Mr. Ben R. Elsey filed in New Mexico Case No. 21-00200-UT, which is publicly available on the New Mexico Public Regulation Commission website.
- b. Please refer to subpart (a). In addition, in the EnCompass analysis, the price of coal is less than the price of natural gas after the units are converted. Therefore, the operating cost of the converted Harrington units is more expensive than the cost to operate on coal.
- c. No. SPS does not use resource planning economic analyses to decide how its plants will be operated over the next two decades. SPS will continue to offer its units into the Southwest Power Pool integrated market.
- d. Please refer to Exhibit SPS-SC 4-6.

Preparer: Ben R. Elsey
Sponsor: Ben R. Elsey

QUESTION NO. Sierra Club 4-7:

Refer to SPS's Response to SC 3-7(d). Please provide all analysis supporting the statement that Jones 2 is the "most similar steam-gas unit" to the Harrington units.

RESPONSE:

No formal analysis was completed. The Jones 2 unit is similar in capacity and fuel use with the absence of any formal controls for NOx or SO2. Therefore, it was used as a baseline for comparing emissions and economic modeling.

Preparers: Jeffrey L. West, Ben R. Elsey
Sponsors: Jeffrey L. West, Ben R. Elsey

CERTIFICATE OF SERVICE

I certify that, unless otherwise ordered by the presiding officer, notice of the filing of this document was provided to all parties of record via electronic mail on February 4, 2022, in accordance with the Order Suspending Rules, issued in Project No. 50664.



Mark A. Santos

Coal Handling Capital Expenditures

WBS Level 4	Unit	Projects Description (WBS Level 4 Description)	Year	In-Service Date	Capital Addition Value	Removal Value	Total Expenditures	AFUDC	is continue?
10054527 HAR Unit 3		H3 SOOTBLOWER COM. REBUILD	2000	1/24/2000	83,838	-	83,838		337 X
10054526 HAR Unit 0		HO REPAIR AIR WASHERS	2000	1/24/2000	44,443	-	44,443		239
10054522 HAR Unit 0		1.999 RCM	2000	2/1/2000	168,680	-	168,680		4,251
10056179 HAR Unit 0		HO PUR CALIBRATOR	2000	3/21/2000	3,167	-	3,167		-
10058674 HAR Unit 3		H3 TBFP ELEMENT MODIFICATION	2000	3/22/2000	436	-	436		5
10056178 HAR Unit 0		HO OFFICE UPGRADE	2000	3/31/2000	41,064	-	41,064		1,478
10056174 HAR Unit 0		HO PUR HYDRAULIC PRESS	2000	3/31/2000	27,612	-	27,612		-
10054569 HAR Unit 3		H3 PUR & INSTALL NEW INVERTER	2000	4/30/2000	100,671	1,540	102,211	2,682	
10060151 HAR Unit 3		H3 RPL OPACITY MONITOR	2000	4/30/2000	42,894	-	42,894	104	
10060152 HAR Unit 3		H3 TBFP SWITCH REPLACEMENT	2000	4/30/2000	3,578	-	3,578	-	
10054646 HAR Unit 0		POWER FM ITEMS	2000	5/1/2000	88,299	-	88,299		6,551
10055685 HAR Unit 2		HP BAG REPLACEMENT	2000	5/19/2000	57,733	7,311	64,483	531	X
10055670 HAR Unit 3		H3 RPLDA ANTI FLASH VALVES	2000	5/22/2000	31,139	2,175	33,314	92	
10055673 HAR Unit 3		H3 RPL ECONOMIZER STABILIZER	2000	6/20/2000	21,602	-	21,602	120	
10055676 HAR Unit 0		HO RPL CHROMATE AUX WATER	2000	6/30/2000	118,260	-	118,260	2,165	
10057257 HAR Unit 0		HO SPECTROPHOTOMETERS	2000	7/25/2000	7,304	-	7,304	260	
10056173 HAR Unit 0		HO PUR AIR WRENCHES	2000	7/25/2000	4,574	-	4,574	163	
10055618 HAR Unit 0		HO BOILER BLDG OH DOORS -0010	2000	8/1/2000	75,995	-	75,995	438	
10055577 HAR Unit 3		H3 RPL DRAG CHAIN 0007	2000	8/1/2000	43,562	5,402	48,963	-	X
10055578 HAR Unit 3		H3 COAL MILL MODIFICATION0006	2000	8/1/2000	184,616	-	184,616	2,630	X
10055535 HAR Unit 3		H3 BOILER BURNERS 0003	2000	8/1/2000	233,323	10,503	243,827	3,265	
10055582 HAR Unit 3		H3 RPLBOILER SCREEN TUBES004	2000	8/1/2000	123,098	5,252	128,350	1,709	
10055583 HAR Unit 3		H3 RPL BOILER SH SPRAY NOZZ 08	2000	8/16/2000	39,563	838	40,401	194	
10055584 HAR Unit 3		H3 RPL UNDERGROUND GAS PIPINGS	2000	8/25/2000	14,044	14,922	156,965	2,462	
10056171 HAR Unit 0		HO CONSTRUCT PURCHASING OFFICE	2000	9/1/2000	21,337	-	21,337	887	
10056176 HAR Unit 2		H2 RPL HVAC IN LAB	2000	9/1/2000	4,892	-	4,892	208	
10055697 HAR Unit 3		H3 PUR & INST STARTUP VALVE	2000	10/9/2000	27,568	-	27,568	370	
10056698 HAR Unit 3		H3 RPL RH DESUPERHEATER VALVES	2000	11/9/2000	22,739	-	22,739	480	
10056680 HAR Unit 3		H3 PUR NEW SUB LAB 02 ANALYZER	2000	11/30/2000	9,630	856	10,486	127	
10056617 HAR Unit 0		HO PAINT/OIL STORAGE BUILDING9	2001	1/12/2001	296,579	-	296,579	2,486	
10054572 HAR Unit 0		EDR UPDATE FOR CEMS	2001	2/1/2001	198,972	-	198,972	7,334	
10141652 HAR Unit 1		H1 INST NEW AIR DRYERS	2001	4/2/2001	68,324	-	68,324	-	
10060946 HAR Unit 1		H1-RPL OPACITY MONITOR	2001	4/6/2001	71,297	3,385	74,681	1,280	
10065209 HAR Unit 0		HO REMOVE RADIOACTIVE SOURCES	2001	4/20/2001	(241)	62,088	61,847	-	X
10065455 HAR Unit 1		H1-RPL CLG TOWER DSTR HEADER	2001	4/25/2001	1,035,902	21,214	1,057,116	8,306	
10066661 HAR Unit 1		H1-REPLACE O2 PROBE SYSTEM	2001	5/4/2001	172,116	1,274	173,390	4,568	
10065959 HAR Unit 3		H3 RPL/RPR #3 HP FEEDWATER HTR	2001	5/18/2001	47,113	85,332	55,445	8,149	
10065143 HAR Unit 1		H1 BOILER SEAL PLATE MODIFICA	2001	5/21/2001	50,670	15,277	51,947	2,076	
10070051 HAR Unit 1		H1-BOILER BURNERS	2001	5/21/2001	408,848	40,794	449,642	2,226	
10072491 HAR Unit 1		H1 RPL BOILER WATERWALL TUBE	2001	5/21/2001	976,774	35,858	1,012,632	2,898	
10068208 HAR Unit 1		H1-MOD ECONOMIZER PANEL HANGER	2001	5/21/2001	74,795	5,961	80,456	163	
10065600 HAR Unit 1		H1 RPL BOILER SCREEN TUBES	2001	5/21/2001	166,498	13,208	179,706	408	
10065207 HAR Unit 1		H1-RPL BOILER REHEAT SPRAY NOZ	2001	5/21/2001	61,867	-	61,867	276	
10060947 HAR Unit 1		H1-RPL RH/SH DESUPERHEATER VAL	2001	5/21/2001	33,394	2,008	35,901	827	
10135287 HAR Unit 0		HO RAILROAD TRACK LOOP SURFACE	2001	6/30/2001	20,211	-	20,211	-	X
10070052 HAR Unit 1		H1-COAL MILL MODIFICATION-2001	2001	7/13/2001	480,540	76,180	556,720	7,080	X
10072364 HAR Unit 0		HO PURCH VIBRATION MONITOR SYS	2001	8/1/2001	26,444	-	26,544	534	
10065210 HAR Unit 3		H2 LAB MONITORS AND METERS	2001	8/1/2001	46,688	830	47,518	1,005	
10134158 HAR Unit 2		H2 RPL C/T WOOD & FILL (2001)	2001	11/1/2001	430,456	14,708	445,164	811	
10056549 HAR Units 1 & 2		H1 & H2 CONTROLS RETROFIT	2001	11/12/2001	3,809,210	-	3,809,210	325,897	
10065899 HAR Unit 1		H1 CONTROLS RETROFIT - TURBINE	2001	11/12/2001	214,883	-	214,883	6,631	

Coal Handling Capital Expenditures

10056552 HAR Units 1 & 2	2001	11/12/2001	801,650	25,098	826,748	90,426
10056694 HAR Units 1 & 2	2001	11/12/2001	692,236	-	692,236	74,627
H1 & H2 CONTROLS RETROFIT			303,311	-	303,311	10,832
H1 CONTROLS RETRO - MECHANICAL	2001	11/12/2001	4,169,566	-	4,169,566	465,461
H1 & H2 CONTROLS RETROFIT	2001	11/12/2001	3,348,443	76,270	3,424,713	339,124
H1 & H2 CONTROLS RETROFIT	2001	11/12/2001	1,149,184	-	1,149,184	123,060
H1 & H2 CONTROLS RETROFIT	2001	11/12/2001	1,753,374	-	1,753,374	182,160
H1 & H2 CONTROLS (TURBINE)	2001	11/12/2001	19,155	-	19,155	1,874
HARRINGTON #4 CTRL RETROFIT PR	2001	11/12/2001	946,736	-	946,736	51,560
H1 & H2 CONTROLS RETROFIT	2001	11/12/2001	1,055,181	-	1,055,181	113,678
H1 & H2 CONTROLS RETROFIT	2001	11/12/2001	159,659	-	159,659	17,982
HARRINGTON #2 CTRL RETROFIT PR	2001	11/12/2001	31,064	-	31,064	3,572
HP BAG REPLACEMENT - 2001			98,737	9,969	108,706	319 X
10056138 HAR Unit 2	2001	11/14/2001	134,097	1,298	135,395	1,404
H2 REPLACE O2 PROBE CONTROLS	2001	12/4/2001	129,321	12,331	141,652	2,069
H3-CLG TWR PERF IMPROVEMENTS	2001	12/7/2001	515,791	14,708	530,99	2,267
H3 RPL/C/T WOOD & FILL (2001)	2001	12/7/2001	-	-	-	-
H4 RPL/C/T BLOWDOWN PIPING	2001	12/18/2001	45	-	45	2
H4 RPL IGNITOR GAS VALVES	2001	12/21/2001	71,788	2,203	73,991	484
H2 RPL IGNITOR GAS VALVES	2001	12/21/2001	57,850	2,203	60,053	454
HO TURBINE BLDG ROOF RPL	2001	12/21/2001	291,742	50,195	341,937	3,133
HO RPL/ROOF CLG TWR SWGR BLDGS	2001	12/28/2001	12,125	3,012	15,137	87
HO REVISE TURB BLDG ROOF DRAIN	2001	12/28/2001	174,374	-	174,374	352
HO Purchase SCBA's	2002	5/15/2002	40,648	-	40,648	-
10134154 HAR Unit 2	2002	6/12/2002	27,952	-	27,952	1 X
H1 Purchase Vacuum Pump	2002	6/12/2002	110,008	2,510	112,518	4,491
HO REPLACE PERIMETER LIGHTING	2002	8/29/2002	214,981	1,101	216,082	15,416
H3 DRIVE UNIT UPGRADE	2002	8/29/2002	207,580	5,000	212,580	9,559 X
H2-REBUILD C-SOOTBLOWER AIR CO			33,092	240	33,332	2,285
10056938 HAR Unit 0	2002	8/29/2002	222,339	57,222	279,561	48,183
HO RPL HVAC/MISC CONTROL ROOM	2003	1/1/2003	6,379	2,008	8,387	-
UNDER FREQUENCY RELAYS	2003	1/1/2003	4,515	1,004	5,519	963
H2 BOILER ACCESS DOOR	2003	1/1/2003	2,844	-	24,844	4,310
H1 RPL BOILER ELEV DOOR	2003	1/1/2003	1,744	-	1,744	-
SURVIVALINK DEFIBRILLATORS	2003	1/1/2003	29,389	-	29,389	-
DIGITAL CAMERA FOR ENVIRON DE	2003	1/1/2003	1,025,807	-	1,025,807	113,813
H2 RPL ELEV DR	2003	1/1/2003	16,732	15,059	31,790	3,965 X
CONTROL RETROFIT	2003	1/1/2003	98,655	924	99,578	13,720
H1 PRECIP PCB TRANSFORMERS			7,974	-	7,974	191
H3 RPL Q2 PROBE SYSTEM	2003	1/1/2003	80,098	-	80,098	13,577
H2 Replace Opacity Monitor	2003	1/17/2003	1,19,315	250,975	1,444,290	17,970
PR RCOM IMPLEMENTATION	2003	1/17/2003	245,088	30,117	275,205	289
H2 Rpl Boiler Waterwall Tube Panel	2003	5/1/2003	1,297,746	150,585	1,448,131	10,410
HS3 CAP-Unit 3 BFP Major Rebuli	2003	5/2/2003	222,605	12,549	233,154	-
H3 Rpl Boiler Waterwall Tube Panel	2003	5/15/2003	755,203	-	755,203	66,974
HS3CAP-Harrington Modif Coal Mill			7,819,615	10,880	7,830,394	327,534
HO SECURITY EQUIP FOR PLANT	2003	5/30/2003	189,733	24,094	213,826	1,441
HAR3 Controls Retrofit	2003	6/1/2003	1,006,435	200,780	1,210,215	(269) X
HS3CAP-R Harrington 3 REPLACE CT WOOD			258,198	28,812	287,010	15,829
Scrap Sales to Individual Workorder	2003	8/1/2003	19,039	(200,015)	(180,976)	-
HS2CAP-Unit 2 REPLACE COOLING TOWER	2003	8/15/2003	200,122	-	224,896	536
UFC DRAWINGS UPDATES	2004	1/1/2004	225,187	-	225,187	52,471
SPS BUDGETING STUDIES	2004	1/1/2004	94,676	-	94,676	20,750

Coal Handling Capital Expenditures

		PROJECT BUDGET ESTIMATING - UE	2004	1/1/2004	-	-	-	-	[0]
10140230	HAR Unit 0	HS1CAP-Replace ID Fan VFD	2004	4/20/2004	1,541,326	30,117	1,571,443	11,688	
10381868	HAR Unit 1	HS1CAP-Rpl Air PreHeater Baskets	2004	4/25/2004	1,013,604	100,390	1,113,994	11,981	
10381925	HAR Unit 1	HS1CAP-Rpl Boiler South Waterwall	2004	4/25/2004	1,246,781	125,488	1,372,269	6,228	
10442889	HAR Unit 1	HS1CAP-REPLACE CT WOOD & FILL	2004	5/30/2004	185,526	23,957	209,283	225	
10442903	HAR Unit 2	HS2CAP-REPLACE CT WOOD & FILL	2004	6/1/2004	179,380	25,557	205,137	87	
10407789	HAR Unit 0	HS0CAP-Pond 3 Pump Transfer	2004	6/18/2004	217,852	3,012	220,864	1,411	
10443026	HAR Unit 3	HS3CAP-REPLACE CT WOOD & FILL	2004	9/15/2004	317,966	26,847	344,814	2,469	
10550061	HAR Unit 0	HAROC-HQ Replace pH Meters	2004	11/10/2004	47,574	2,008	49,581	99	
10550096	HAR Unit 2	HAR2C-H2 Repl Cooling Tower Wi	2004	11/20/2004	255,522	40,156	298,678	839	
10391251	HAR Unit 1	HIS1CAP-Harrierton 1 PRECIPITATOR DU	2004	12/13/2004	(252)	-	(252)	252	X
10566521	HAR Unit 3	HAR3C-H3 Repl Cooling Tower Wi	2005	1/1/2005	214,891	37,144	252,035	1,793	
10550097	HAR Unit 0	HAROC-HQ Bath & Break Rooms	2005	1/1/2005	86,338	30,000	116,438	1,143	
10550077	HAR Unit 0	HAROC-HQ Replace Recovery Well SPS4	2005	1/1/2005	75,700	-	75,700	385	
10566496	HAR Unit 1	HARIC-H1 Repl Ash Silo Elevator	2005	1/27/2005	221,823	39,325	261,148	749	
10561010	HAR Unit 3	HAR3C-H3 Install Ash Silo Elevator	2005	2/15/2005	300,235	-	300,235	2,947	X
10624435	HAR Unit 1	HARIC-H1 Repl Stack Flow Monitor	2005	8/16/2005	35,545	-	39,545	347	
10673591	HAR Unit 3	HAR3C-H3 Cooling Tower Wood & Fill	2005	9/19/2005	112,596	108,803	221,398	-	
10605718	HAR Unit 2	HAR2C-H2 Replace #3 FWH	2005	10/18/2005	780,779	26,086	806,865	4,712	
10566453	HAR Unit 2	HAR2C-H2 Repl Boiler Superheat Plat	2005	11/3/2005	3,340,325	212,450	3,552,975	70,020	
10566470	HAR Unit 2	HAR2C-H2 Boiler North & East Waterwa	2005	11/3/2005	1,457,850	208,119	1,662,969	17,975	
10605073	HAR Unit 2	HAR2C-H2 Replace Coal Mill Exhauste	2005	11/3/2005	90,559	1,003	91,563	3,776	X
10707672	HAR Unit 2	HAR2C-H2 Replace West BCP & Mo	2005	11/3/2005	59,797	3,514	63,311	341	
10622361	HAR Unit 2	HAR2C-H2 Inst Addl Blr Soothowers	2005	11/30/2005	395,700	-	396,700	4,150	X
10673576	HAR Unit 2	HAR2C-H2 Cooling Tower Wood & Fill	2005	12/1/2005	246,563	25,386	272,449	2,233	
10322403	HAR Unit 3	HS3CAP-Harrington 3 REPLACE ACW CON	2005	12/5/2005	-	-	-	-	[0]
10673554	HAR Unit 1	HAR1C-H1 Cooling Tower Wood & Fill	2005	12/14/2005	198,615	79,045	277,660	2,639	
10583222	HAR Unit 0	HAROC Firewall Installation	2005	12/15/2005	451,728	-	451,728	10,625	
10677608	HAR Unit 3	HAR3C-H3 Repl Major Comp Soot Blow	2005	12/22/2005	493,028	27,515	520,543	6,336	X
10705208	HAR Unit 1	HAR1C-H1 Replace CT Fans, Gearbox	2005	12/29/2005	499,786	(3,064)	496,722	2,149	
10766938	HAR Unit 3	HAR3C-H3 Repl Stack Flow Monitor	2006	1/15/2006	64,467	371	64,638	4	
10810432	HAR Unit 1	HAR1C-H1 Cooling Tower Wood &	2006	9/11/2006	177,467	3,061	180,528	844	
10846981	HAR Unit 3	HAR3C-H3 Emergency Diesel Generator	2006	11/2/2006	151,917	3,819	155,736	1,369	
10653590	HAR Unit 3	HAR3C-H3 NOx Reduction Project	2006	11/28/2006	4,228,065	-	4,228,065	48,692	X
10766644	HAR Unit 3	HAR3C-H3 Repl Boiler North Water Wall	2006	11/28/2006	1,395,760	-	1,395,760	13,445	
10766629	HAR Unit 3	HAR3C-H3 Repl APH Baskets with Clea	2006	11/28/2006	1,580,930	(25,696)	1,554,734	21,740	
10728694	HAR Unit 3	HAR3C-H3 Replace Boiler SH Plate	2006	11/28/2006	2,966,554	352,695	3,319,249	40,233	
10882018	HAR Unit 3	HAR3C-H3 BFTP T-0 Blade Replacement	2006	11/29/2006	151,221	6,046	157,267	406	
10760613	HAR Unit 3	HAR3C-H3 Install All Boiler Log	2006	12/12/2006	437,541	-	437,541	6,491	X
10595626	HAR Unit 1	HAR1C-H1 ACW Control Replaceme	2006	12/16/2006	310,478	803	311,281	10,341	
1074972	HAR Unit 2	HAR2C-H2 Rpl Cntr Sys AW WP	2006	12/22/2006	293,753	1,998	295,752	4,420	
10798502	HAR Unit 0	HAROC-HQ Erosion Control Wastewater	2007	1/1/2007	105,904	4,016	109,920	512	X
10760618	HAR Unit 3	HAR3C-H3 Install Hi-Eff Coal Mill E	2007	1/1/2007	-	-	-	-	
10898745	HAR Unit 3	HAR3C-H3 Repl Boiler N Water Walls	2007	1/1/2007	-	-	201,540	-	
10898746	HAR Unit 3	HAR3C-H3 Repl APH Baskets w/ Clear	2007	1/1/2007	-	-	151,155	-	
10841068	HAR Unit 0	HAROC-HQ Reline Pond 18	2007	1/29/2007	861,938	220,258	1,082,196	11,782	
1073665	HAR Unit 0	HAROC-Rpl Fuel Reporting Com	2007	4/30/2007	37,421	202	37,624	1,225	
10880815	HAR Unit 3	HAR3C-H2 Replace Station Batteries	2007	4/30/2007	37,008	2,337	39,545	655	
10898711	HAR Unit 3	HAR3C-H3 NOx Reduction Proj - Ret	2007	4/30/2007	-	156,194	156,194	-	
10808793	HAR Unit 3	HAR3C-Repl CMMS Soft/Hard/EDR	2007	5/31/2007	76,244	7,284	83,528	3,035	
10874239	HAR Unit 1	HAR1C-Repl CMMS Field Hardware	2007	5/31/2007	111,684	3,441	115,125	128	
10808788	HAR Unit 1	HAR1C-Repl CMMS Soft/Hard/EDR	2007	5/31/2007	95,830	7,194	101,024	3,219	

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10915848 HAR Unit 2	HAR2C-H2 Replace Stack Flow Monitor	2007	6/30/2007	28,212	1,001	29,214	128
10873245 HAR Unit 3	HAR3C-Rpl CMMS Field Hardware	2007	7/24/2007	109,075	2,068	111,143	875
10874244 HAR Unit 2	HAR2C-Rpl CMMS Field Hardware	2007	7/31/2007	129,322	5,822	135,144	878
11012284 HAR Unit 3	HAR3C-H3 Repl 3-D Coal Mill	2007	9/1/2007	90,324	20,389	110,912	100 X
10828792 HAR Unit 2	HAR2C-Rpl CMMS Soft/Hard/EDR	2007	9/27/2007	77,815	1,323	79,139	4,120
109292030 HAR Unit 0	HAROC-HO Rpl Turbine Deck Cra	2007	10/1/2007	351,209	588	351,797	4,356
10986257 HAR Unit 1	HAR1C-H1 Repl Cont Sys AW &	2007	10/15/2007	345,798	6,841	350,639	2,037
10933440 HAR Unit 0	HAROC-HO Reline Pond 9	2007	11/15/2007	77,052	56,700	827,752	8,114
110252861 HAR Unit 1	HAR1C-H1 Generator Re-Wedge	2007	11/27/2007	180,528	2,531	183,059	747
10845145 HAR Unit 1	HAR1C-H1 Repl Blr Sh-Haten Panels	2007	11/27/2007	3,182,236	121,627	3,303,863	38,204
10845165 HAR Unit 1	HAR1C-H1 Repl Boiler Economizer	2007	11/27/2007	4,928,340	223,861	5,152,201	66,070
10930011 HAR Unit 0	HAROC-HO Repl Pumps & Vws-LAD	2008	1/1/2008	166,615	66,542	233,157	3,263
11023554 HAR Unit 0	HAR1C-H1 Repl Station Batteries	2008	1/1/2008	60,384	1,013	65,897	539
11104805 HAR Unit 3	HAR3C-H3 CT Makeup line from	2008	6/30/2008	115,294	1,175	114,469	47
10957669 HAR Unit 1	HAR1C-Install Mercury CEMS Mon	2008	8/1/2008	354,464	-	354,464	5,303 X
10957679 HAR Unit 2	HAR2C-Install Mercury CEMS Mon	2008	8/1/2008	395,415	-	395,415	5,655 X
10957704 HAR Unit 3	HAR3C-Install Mercury CEMS Mon	2008	8/1/2008	439,767	-	439,767	5,857 X
11055045 HAR Unit 2	HAR2C-H2 Rpl Air Preheater Ba	2008	11/15/2008	1,934,596	184,89	2,118,885	13,998
11034844 HAR Unit 2	HAR2C-H2 NOx Reduction Proj	2008	11/15/2008	3,733,285	577,939	4,313,224	28,452 X
10947136 HAR Unit 2	HAR2C - Replace boiler economi	2008	11/15/2008	4,273,021	443,509	4,716,530	54,476
11104302 HAR Unit 2	HAR2C - H2 Rpl APH Expansion J	2008	11/15/2008	271,611	98,897	370,508	838
11055842 HAR Unit 2	HAR2C-H2 Repl Boiler RH Panels	2008	11/15/2008	1,053,117	113,566	1,166,683	3,955
11090102 HAR Unit 2	HAR2C-H2 BFPT L0 Blade-Replic	2008	11/21/2008	184,948	50,340	233,288	1,227
11159495 HAR Unit 2	HAR2C-H2 Rpl CT Wind walls &	2008	11/21/2008	138,479	29,263	167,742	321
11096149 HAR Unit 0	HAROC-HO Reline Pond 8	2008	12/1/2008	538,816	100,260	639,075	4,029
11127702 HAR Unit 2	HAR2C-H2 Rpl Foxboro CPs & Sof	2009	1/1/2009	455,345	1,048	456,393	6,149
11183436 HAR Unit 0	HAROC-HO Rpl Injection Well Pipe	2009	1/14/2009	310,908	-	310,408	1,491
11133939 HAR Unit 1	HAR1C-H1 Startup Blr BD Separator	2009	4/22/2009	37,302	2,216	39,518	634
11194151 HAR Unit 2	HAR2C-HP Feedwater Heater Lev	2009	4/30/2009	34,315	-	34,315	268
11216056 HAR Unit 3	HAR3C-H3 Replace Drag Chain	2009	5/1/2009	46,901	159	47,059	328 X
111194159 HAR Unit 0	HAROC-Replace Shop Roof	2009	7/31/2009	153,837	20,012	172,950	293
112160276 HAR Unit 3	HAR3C-Rpl CT Switcgear Room	2009	8/30/2009	25,336	5,085	33,421	238
112160288 HAR Unit 2	HAR2C-Rpl CT Switcgear Room	2009	8/30/2009	28,336	5,085	33,421	238
11206068 HAR Unit 1	HAR1C-H1 Rpl Elevator Controls	2009	9/1/2009	171,708	29,003	200,711	559
11216063 HAR Unit 0	HAROC-Fume Extraction Arm Inst	2009	10/2/2009	65,218	-	63,218	861
112162790 HAR Unit 2	HAR2C-Replace Boiler Roof	2009	10/21/2009	91,764	16,254	108,018	327
112286600 HAR Unit 0	HAROC-HO Purch Confined Space Comm	2009	10/30/2009	36,319	-	36,919	67
111262806 HAR Unit 3	HAR3C-Coal Bunker Level Measure	2009	11/11/2009	61,288	335	61,623	562 X
112196163 HAR Unit 3	HAR3C-Rpl Bottom Ash Chute	2009	11/13/2009	55,283	36,790	92,074	234 X
11201539 HAR Unit 3	HAR3C-H3 Instl Boiler Camera	2009	11/13/2009	265,954	-	262,954	1,549
11286540 HAR Unit 3	HAR3C-Coal Mill Journal Liners	2009	11/13/2009	51,429	-	75,375	406
11297195 HAR Unit 3	HAR3C-Rpl Baghouse Vent Dampers	2009	11/13/2009	55,348	8,668	64,016	1,169
11285536 HAR Unit 3	HAR3C-Coal Pipe Isolation Vlv	2009	11/13/2009	180,152	-	261,149	2,457
11210555 HAR Unit 3	HAR3C-H3 Repl Boiler RH Panels	2009	11/15/2009	1,019,121	141,649	1,160,771	5,177
112220773 HAR Unit 3	HAR3C-Rpl Oil Filtration syste	2009	11/26/2009	74,977	398	75,375	-
11210710 HAR Unit 3	HAR3C-H3 BFPT Overspeed Protec	2009	11/20/2009	125,044	-	125,044	1,169
11206071 HAR Unit 2	HAR2C-H2 Rpl Elevator Controls	2009	11/24/2009	196,974	64,176	261,149	2,457
112220772 HAR Unit 3	HAR3C-Install Varnish Removal	2009	11/30/2009	67,035	-	67,035	567
11201543 HAR Unit 3	HAR3C-H3 Install Coal Mill Hi	2009	12/8/2009	-	-	-	-
11304067 HAR Unit 0	HAROC-Hp Training Cntr Roof	2009	12/14/2009	189,519	13,285	202,905	1,062
11302597 HAR Unit 3	HAR3C-Rpl CT Partition Walls	2009	12/15/2009	105,992	29,627	135,619	474
11285907 HAR Unit 2	HAR2C-H2 Rpl Station Batteries	2009	12/15/2009	79,579	2,825	82,405	532

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11259424 HAR Unit 1	HAR1C-B boiler sump pump replace	2010	1/1/2010	59,337	5,085	64,422	1,431
11215791 HAR Unit 3	HAR3C-Neural System Purchase	2010	1/1/2010	716,956	-	716,956	26,696 X
11215754 HAR Unit 3	HAR3C-Rpl WPS & Software	2010	1/1/2010	357,111	3,259	360,370	11,557
11321357 HAR Unit 2	HAR2C-Rebag Baghouse Compartment	2010	1/22/2010	62,311	26,336	88,648	73 X
11293521 HAR Unit 1	HAR1C-Rpl Coal Bunker Level Meas	2010	2/1/2010	64,704	514	65,218	605 X
11288479 HAR Unit 1	HAR1C-Fur Safety Splitter Rlf	2010	2/5/2010	20,771	243	21,014	226 X
11247707 HAR Unit 1	HAR1C-Install APH Expan Joints	2010	2/11/2010	225,871	32,452	256,323	1,444
11220775 HAR Unit 1	HAR1C-Rpl Oil Filtration Syste	2010	2/24/2010	76,312	1,083	77,395	815
11267780 HAR Unit 1	HAR1C-Drag Chain replacement	2010	3/1/2010	64,341	4,813	69,154	1,277 X
1130928 HAR Unit 2	HAR2C-Rpl Coal Bunker Level Measure	2010	3/5/2010	56,426	363	56,789	664 X
11220768 HAR Unit 1	HAR1C-Install Varnish Removal	2010	3/31/2010	80,772	-	80,772	990
11266339 HAR Unit 1	HAR1C-Condensate Flow Nozzle	2010	4/30/2010	193,804	1,571	193,374	2,872
11328926 HAR Unit 1	HAR1C-Purch Neural System	2010	5/31/2010	359,110	-	359,110	4,665 X
11050506 HAR Unit 3	HAR3C-H3 Instal Econ Ash Drag	2010	6/7/2010	-	-	-	X
11247726 HAR Unit 1	HAR1C-H1 Baghouse Hg Capture	2010	6/7/2010	-	-	-	X
11384860 HAR Unit 2	HAR2C-Rpl Coal Mill Duct Work	2010	7/12/2010	875,937	150,882	1,026,819	42 X
11351744 HAR Unit 2	HAR2C-CT Wood and Fill	2010	7/26/2010	211,584	5,034	216,718	1,614
11193935 HAR Unit 0	HAROC-HO Build Warehouse Stora	2010	8/31/2010	341,297	-	341,297	2,608
11383421 HAR Unit 2	HAR2C-Purch Neural Network	2010	9/10/2010	53,279	-	53,279	2,627 X
11327234 HAR Unit 3	HAR3C-Aircraft Warning System	2010	9/13/2010	141,493	3,710	145,203	1,241
11215731 HAR Unit 1	HAR1C-Rpl Forkboro Cps & Sof	2010	9/14/2010	405,548	2,768	412,316	24,024
11286552 HAR Unit 1	HAR1C-Coal Pipe Isolation Vlvs	2010	10/15/2010	190,200	-	190,200	4,088 X
11285549 HAR Unit 1	HAR1C-Coal Mill Journal Liners	2010	10/15/2010	26,415	4,010	30,425	211 X
11206057 HAR Unit 1	HAR1C-H1 Rpl Boiler RH Panels	2010	10/16/2010	976,279	132,728	1,108,008	21,245
11220576 HAR Unit 1	HAR1C-H1 BFPT Overspeed Protec	2010	10/18/2010	183,795	2,219	186,014	6,336
10866223 HAR Unit 1	HAR1C-H1 NOX Reduction Prote	2010	10/18/2010	4,586,022	200,526	4,785,548	121,110
11363305 HAR Unit 1	HAR1C-Rpl ESP & Outlet Ducts	2010	10/18/2010	5,001,916	20,230	5,022,146	58,673 X
1129115 HAR Unit 1	HAR1C-H1 Rpl BFPT L-O Blades	2010	10/18/2010	219,829	9,591	229,220	4,443
11329527 HAR Unit 3	HAR3C-Rpl Comp Rm Roof	2010	11/17/2010	57,893	5,376	63,269	326
11343931 HAR Unit 0	HAROC-Confere Room	2010	11/22/2010	280,738	-	280,738	2,489
11343922 HAR Unit 2	HAR2C-Rpl Baghouse Elevator	2010	11/24/2010	326,888	7,641	334,528	2,850 X
11343907 HAR Unit 3	HAR3C-Rpl Baghouse Elevator	2010	11/24/2010	305,025	35,158	337,183	2,844 X
11376220 HAR Unit 0	HAROC-Inst Load Cell Turb Crane	2010	11/30/2010	49,856	-	49,856	512
11394522 HAR Unit 2	HAR2C-Instrument Air Dryer	2010	12/15/2010	64,652	3,156	67,710	832
11439611 HAR Unit 1	HAR1C-Inst HI SootOpt Plkg	2011	1/7/2011	169,068	-	169,068	1,366 X
11456233 HAR Unit 2	HAR2C-Rpl Windbox Aux Air Dampers	2011	4/29/2011	736,556	48,049	784,506	3,498
11327238 HAR Unit 2	HAR2C-Rpl Boiler Nose Tubes	2011	5/9/2011	2,231,957	250,490	2,482,448	33,033
11327314 HAR Unit 2	HAR2C-Rpl Front Blr Reheat Panel	2011	5/9/2011	1,706,731	127,329	1,834,060	32,177
11486299 HAR Unit 2	HAR2C-Coal Piping Isolation Vlvs	2011	5/9/2011	174,783	-	174,783	1,232 X
11456302 HAR Unit 2	HAR2C-Rpl Coal Mill Liners	2011	5/9/2011	19,540	5,174	24,715	112 X
11486300 HAR Unit 2	HAR2C-Rpl Coal Mill Classif Cones	2011	5/9/2011	94,471	9,653	101,124	740 X
11382901 HAR Unit 2	HAR2-Rpl Voltage Regulator	2011	5/10/2011	244,121	19,311	265,432	3,359
11459424 HAR Unit 2	HAR2C-Rpl Drag Chain	2011	5/10/2011	108,239	1,019	110,258	1,523 X
11467299 HAR Unit 2	HAR2C-Rebag 6 Crpt Major 2011	2011	5/12/2011	128,991	12,753	141,744	1,006 X
11449057 HAR Unit 2	HAR2C-BFPT Overspeed Protection	2011	5/16/2011	170,779	1,909	172,189	1,205
11459415 HAR Unit 2	HAR2C-Rpl Seal Oil Filter System	2011	5/16/2011	80,111	1,957	82,068	654
11486328 HAR Unit 1	HAR1C-Rpl 2 Main Transf Oil Coolers	2011	5/27/2011	85,631	1,771	87,402	93 X
11467285 HAR Unit 3	HAR3C-Rebag 3 Crpt Mini 2011	2011	5/31/2011	48,945	9,703	55,648	53 X
11460762 HAR Unit 2	HAR2C-Inst Blr Camera System	2011	7/15/2011	270,170	-	270,170	4,807
11302563 HAR Unit 2	HAR2C-Rpl Stack Elevator	2011	7/20/2011	52,748	-	553,020	13,833
11483394 HAR Unit 0	HAROC-Rpl Fuel Gas Pipeline Phase 1	2011	7/30/2011	72,063	-	743,025	3,758
11488643 HAR Unit 3	HAR3C-Rpl Boiler Roof	2011	8/2/2011	101,840	71,099	172,939	890

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11533117 HAR Unit 1		2011	8/26/2011	120,841	34,923	155,764	385
1153320 HAR Unit 2		2011	11/30/2011	31,376	-	37,376	201
11536372 HAR Unit 1		2011	12/27/2011	60,443	-	64,443	710
11537498 HAR Unit 2		2012	2/10/2012	54,761	20,305	75,267	527
11537483 HAR Unit 0		2012	2/16/2012	1,713,378	81,139	1,794,618	26,080
11578676 HAR Unit 3		2012	3/9/2012	65,556	10,869	76,425	1,246
11495710 HAR Unit 0		2012	3/29/2012	1,238,967	113,956	1,352,923	16,847
11612739 HAR Unit 3	HAR1C-Rpl Boiler Roof	2012	4/6/2012	678,793	-	678,793	5,674
11592921 HAR Unit 0	HAR2C-1st Yarnish Removal Skid	2012	4/13/2012	22,556	864	23,420	71
11555929 HAR Unit 3	HAR1C-Main Power Xfrm DGA	2012	4/13/2012	934,781	54,733	989,514	8,434
11634208 HAR Unit 3	HAR2C-Rpl Lube Oil Filtration Sys	2012	4/16/2012	146,017	47,558	193,574	209
11527985 HAR Unit 3	HAROC-Rpl Turbine Roof	2012	4/18/2012	290,921	2,944	293,865	4,885
11618368 HAR Unit 3	HAR3C-Rpl Isophase bus bar ins	2012	4/18/2012	140,331	10,015	150,546	840
11581306 HAR Unit 1	HAR3C-Rpl Voltage Regulator	2012	4/24/2012	33,392	12,951	46,443	981
11465999 HAR Unit 3	HAR1C-H1 Rpl Lab Equip	2012	4/25/2012	1,788,695	179,198	1,967,893	32,564
11465991 HAR Unit 3	HAR3C-H3 Rpl Boiler RH Panels	2012	4/25/2012	2,274,315	292,380	2,567,195	33,980
11612733 HAR Unit 3	HAR3C-Rpl Boiler Nose Tubes	2012	4/26/2012	77,318	10,218	88,036	579
11581282 HAR Unit 3	HAR3C-H3 Rpl Lab Equipment	2012	5/7/2012	31,975	12,565	50,540	1,656
11609259 HAR Unit 2	HAR2C-Rebag 3 Cnprt Mini 12	2012	5/8/2012	45,990	10,863	56,353	210
11583216 HAR Unit 3	HAR3C-H3 Rpl Opacity Monitor	2012	5/8/2012	44,910	3,764	48,673	867
11609300 HAR Unit 3	HAR2C-Rebag 5 Cnprt Maj 12	2012	5/8/2012	100,998	31,125	131,723	1,533
11657732 HAR Unit 0	HAROC-PURCH H2 Tank	2012	5/18/2012	28,283	-	28,283	41
11582316 HAR Unit 1	HAR1C-H1 Rewind 4160 Normal Source	2012	5/20/2012	209,922	46,276	255,598	4,603
11636491 HAR Unit 1	HARIC-Rewind W Boiler Crc Mtr	2012	5/28/2012	-	-	-	-
11578669 HAR Unit 1	HAR1C-Rpl Lube Oil Filtration Sys	2012	6/28/2012	49,015	19,339	68,954	2,512
11618416 HAR Unit 2	HAR2C-Rpl Undergrnd Duct Banks	2012	6/28/2012	253,442	(20,031)	233,112	2,522
11488672 HAR Unit 0	HAROC-Rpl Plant Paving 1/6	2012	7/24/2012	216,767	50,005	266,772	3,686
11592919 HAR Unit 2	HAR2C-Rpl H2 Cond Transf Pumps	2012	7/26/2012	36,996	1,832	36,928	346
11570749 HAR Unit 3	HAR3C-Rpl Pulverizer Reconstruction	2012	8/3/2012	351,866	67,778	419,445	7,439
11625994 HAR Unit 0	HAROC-Rpl Paving Phase2/6	2012	8/13/2012	150,464	12,806	163,269	561
11682038 HAR Unit 0	HAROC-Rpl AC Unit in crew brea	2012	8/15/2012	36,730	1,968	38,698	104
11657724 HAR Unit 0	HAROC-Rpl FK20 Substation Bkfr	2012	8/15/2012	134,224	13,551	147,775	1,944
11495681 HAR Unit 1	HARIC-H1 Inst Ash Silo Elevator	2012	8/17/2012	598,902	-	598,502	9,204
11696690 HAR Unit 0	HAROC-Rpl Motor for Pond 12	2012	8/31/2012	62,668	619	6,887	-
11671582 HAR Unit 0	HAROC-Rpl Ash Gate/remote seq	2012	9/4/2012	30,726	655	31,381	290
11697830 HAR Unit 0	HAROC-Rpl AC Unit in crew shower	2012	9/14/2012	13,774	799	14,573	46
11693441 HAR Unit 1	HAR1C-Rpl CEMS Sample Probe	2012	9/28/2012	12,307	651	12,957	18
11717126 HAR Unit 1	HAR1C-Rpl W Blr H2O Crc Motor	2012	10/10/2012	75,058	1,620	74,678	397
11717139 HAR Unit 1	HAR1C-Rpl W Blr H2O Crc Pump	2012	10/17/2012	153,401	7,925	161,326	902
11682052 HAR Unit 2	HAR2C-Rpl Cond Cir Line Explo	2012	10/19/2012	172,120	38,774	210,595	751
11605102 HAR Unit 1	HAR1C-1st Boiler Camera	2012	10/25/2012	285,039	-	285,039	7,963
11673808 HAR Unit 0	HAROC-Rpl Turbine Roof	2012	10/25/2012	87,089	-	87,089	476
11693450 HAR Unit 2	HAR2C-Rpl CEMS Sample Probe	2012	10/25/2012	11,734	1,667	13,401	57
11727924 HAR Unit 2	HAR2C-Rpl Circ Wtr Elbow at CT	2012	11/8/2012	55,376	41,927	97,803	260
11687140 HAR Unit 3	HAR3C-Rpl BH Savgage Pipe to Li	2012	11/9/2012	57,335	10,397	67,732	338
11466017 HAR Unit 3	HAR3C-Purch Gen Stator Coils	2012	11/15/2012	2,894,971	-	2,894,971	114,006
11737133 HAR Unit 2	HAR2C-Purch Cntr Blr Wtr Crc Motor	2012	11/15/2012	80,741	3,014	83,755	116
11737129 HAR Unit 2	HAR2C-Rewind W Blr Wtr Crc Motor	2012	11/15/2012	85,258	3,015	88,273	122
11737055 HAR Unit 2	HAR2C-Rpl Steam Drum Internals	2012	11/15/2012	206,963	12,413	219,376	303
11726019 HAR Unit 1	HARIC-H1 A SB Air Compressor	2012	11/21/2012	131,378	2,462	133,840	525
11676836 HAR Unit 2	HAR2C-Rpl Undergrnd Duct Banks	2012	11/27/2012	104,649	500	105,149	232
11524636 HAR Unit 2	HAR2C-Purch Cond Tube Sheets	2012	11/29/2012	249,483	-	249,483	18,630

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11693454 HAR Unit 3	2012	12/18/2012	16,218	1,301	17,520	179
11748705 HAR Unit 3	2012	12/19/2012	71,939	9,056	80,995	88
HAR3C-Rpl CE/Ms Sample Probe						
HAR3C-Rewind E Blr Circ Mtr						
HAR3C-Rewind W Blr Circ Mtr	2012	12/19/2012	63,380	8,103	72,082	94
HAR3C-Rewind East Blr Wtr Circ Mtr	2012	12/20/2012	126,197	6,553	132,750	691
HAR3C-Rpl Cond Transf Pumps	2012	12/21/2012	55,753	1,404	55,157	774
HAR1C-Rpl Voltage Regulator	2013	2/8/2013	335,999	20,534	355,934	3,437
HAR1C-Rpl CT Circ Pump Exp Joints	2013	2/19/2013	67,368	19,033	86,401	265
HAR1C-Rpl SH Desuperheater Ppl	2013	2/19/2013	191,942	29,800	221,741	1,485
HAR1C-Rpl Front Blr Rh Panels	2013	2/20/2013	1,949,034	175,353	2,124,387	60,763
HAR1C-1st APH Fab Expn Jnts	2013	2/20/2013	552,487	-	552,487	2,577
HAR1C-Rewind Ctr Blr Wtr Circ Motor	2013	2/25/2013	60,350	5,252	65,602	555
HAR1C-rebuild Ctr Blr Wtr Circ Pump	2013	2/25/2013	145,767	11,961	157,728	2,065
HAR1C-Rewind East Blr Wtr Circ Moto	2013	2/25/2013	69,388	4,587	74,175	906
HAR1C-Rpl Boiler Nose Tubes	2013	2/26/2013	2,106,414	148,433	2,254,847	63,934
HAR1C-Rpl Steam Drum Internals	2013	2/26/2013	273,869	11,939	285,808	3,641
HAR1C-Rpl GSU Oil Coolers 2/2	2013	2/27/2013	163,425	6,700	163,125	2,094
HAR1C-Reinsulate W HRH Pipe	2013	3/1/2013	272,106	254,823	526,929	870
HAR1C-Install Liner in Circ Wtr Lin	2013	3/4/2013	68,227	-	682,027	5,837
HAR1C-H1 Rpl Drag Chain	2013	3/8/2013	62,445	48,135	110,580	708
HAR2C-H2 Rpl Opacity Monitor	2013	4/4/2013	47,235	795	48,030	218
HAR2C-1dg Ld Bag 14 Compartments	2013	4/9/2013	280,494	51,557	332,051	1,532
HAROC-Rpl Inj Well Actuators	2013	4/24/2013	18,491	720	19,211	141
HAR3C-1dag 3 Cmpt Mini 2013	2013	5/16/2013	72,123	29,065	101,188	379
HAR1C-Rpl HWD & Westside Columns	2013	6/5/2013	642,412	174,597	817,010	5,951
HAR3C-Second CT Transfrm	2013	6/5/2013	68,322	8,380	77,502	436
HAR2C-Rpl H2 CT Fan #13	2013	6/12/2013	26,282	2,184	28,466	31
HAR2C-1dg Conden Tube Clean Sy	2013	6/13/2013	62,270	34,621	659,891	18,035
HAR1C-1dg Conden Tube Clean Sy	2013	6/14/2013	639,724	36,350	678,085	20,000
HAR2C-Rpl H2 CT gearbox	2013	6/21/2013	33,285	2,566	35,851	457
HAR2C-Rpl H2 CT Fan	2013	6/21/2013	25,274	206	25,485	515
HAR1C-H1 Rpl Failed Ctr Pipe Liner	2013	6/24/2013	116,454	17,148	133,602	141
HAR3C-Rpl H3 CT gearbox	2013	6/24/2013	25,270	825	24,095	457
HAR3C-U3 Coal Bunker CO monit	2013	6/27/2013	52,466	-	52,466	42
HAR3C-U3 Coal Bunker CO monit	2013	6/27/2013	13,694	3,205	16,899	16
HAR3C-Rbl WCT Make-Up Pump	2013	6/27/2013	55,598	-	55,598	47
HAR2C-U2 Coal Bunker CO monit	2013	6/27/2013	59,518	-	59,818	36
HAR1C-U1 Coal Bunker CO monit	2013	7/1/2013	32,627	831	33,458	123
HAROC-Rpl E&W Lagoon Actuator	2013	7/31/2013	44,179	4,952	49,132	48
HAR1C-Rwd W E Main Circ Pump	2013	8/2/2013	33,305	18,718	52,023	163
HAR3C-3B Mill Big Foundation P	2013	10/7/2013	38,347	4,919	43,266	212
HAR3C-Rpl Relay Room AC Unit#1	2013	11/5/2013	70,914	6,550	77,464	684
HAROC-Rpl Inj Well Booster Pump	2013	11/5/2013	84,499	14,049	98,547	-
HAR3C-Rpl Heat Exch Exp Jnts & Vlys	2013	11/5/2013	10,448	1,454	11,902	50
HAR1C-Rpl #13 CT Motor	2013	11/8/2013	7,513	1,717	9,329	-
HAR2C-Rwd #12 CT Motor	2013	11/8/2013	10,981	366	11,348	53
HAR1C-H1 Rpl Drum Safety Valve	2013	11/21/2013	33,839	7,360	41,200	58
HAR1C-Rpl #13 CT Motor	2013	11/25/2013	124,890	32,686	157,376	974
HAR1C-H1 ACV Circ Pump Suction Pipe	2013	11/27/2013	166,621	31,892	198,513	1,138
HAR3C-Rpl Failed Circ Liner	2013	11/30/2013	188,051	53,173	241,224	228
HAR1C-Rpl #1 FWH 1B Valve	2013	12/2/2013	15,059	2,373	17,432	18
HAR2C-Rpl #6 CT Fan and Gearbox	2013	12/10/2013	60,686	6,254	66,940	390
HAR1C-Rpl MV Prot Relays	2013	12/15/2013	61,516	15,767	77,282	725

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11822091 HAR Unit 1		2013 12/19/2013	402,613	54,358	456,971	1,594
11846300 HAR Unit 2		2014 1/30/2014	284,442	4,745	288,887	1,280
11846354 HAR Unit 2	HAR1C-Rpl HWD&UpLouvCol P/H2	2014 2/7/2014	422,092	50,269	472,361	2,863
11846640 HAR Unit 2	HAR2C-Rpl GSU Oil Coolers	2014 2/7/2014	170,974	37,865	208,840	780 X
11891358 HAR Unit 2	HAR2C-Rpl SH Desuperheater & Plp	2014 2/7/2014	85,885	40,385	126,769	481
11947245 HAR Unit 2	HAR2C-H2 Rebag Partial 14	2014 2/10/2014	116,517	3,091	113,708	127
11864627 HAR Unit 2	HAR2C-H2 Rpl/Circ Pump Expan Joints	2014 2/12/2014	596,576	-	596,576	3,185
11913876 HAR Unit 2	HAR2C-H2 Rpl W Blr Circ Pump 14	2014 2/13/2014	40,480	9,860	50,340	297
11913886 HAR Unit 2	HAR2C-H2 Rpl Ctr Blr Circ Pump 14	2014 3/7/2014	95,483	10,750	106,233	586
11947397 HAR Unit 2	HAR2C-Rbld E Flyash Vac Pump	2014 3/7/2014	34,012	5,416	39,428	160 X
11924038 HAR Unit 2	HAR2C-H2 Replace Drag Chain 14	2014 3/7/2014	110,239	22,155	132,394	789 X
11913894 HAR Unit 2	HAR2C-H2 Rpl E Blr Circ Pump 14	2014 3/7/2014	44,122	10,858	54,980	338
11886891 HAR Unit 2	HAR2C-H2 Rpl Inverter Batteries	2014 3/10/2014	50,049	5,246	55,895	485
11753671 HAR Unit 2	HAR2C-Rpl Cord Tube Install	2014 3/14/2014	61,091	417,946	1,029,037	59,863
11937955 HAR Unit 2	HAR2C-Rewind Rotating Exciter	2014 3/14/2014	1,658,447	21,527	1,679,773	10,692
11940365 HAR Unit 2	HAR2C-Rpl 10th Stg Turbine Blade	2014 3/15/2014	191,039	32,645	223,684	245
11883949 HAR Unit 2	HAR2C-Replace Deflation Piping	2014 3/17/2014	466,116	64,122	530,238	5,501 X
11846347 HAR Unit 2	HAR2C-Rpl Station Prot Relays	2014 3/17/2014	47,240	14,118	61,358	1,039
11722817 HAR Unit 2	HAR2C-Rpl Emerg Diesel Gen	2014 3/20/2014	245,282	17,683	260,966	7,981
11890431 HAR Unit 2	HAR2C-inst Liner Circ Wtr Line	2014 3/21/2014	1,449,037	-	1,449,037	2,162
11876877 HAR Unit 2	HAR2C-Rpl CT River Pipes	2014 3/21/2014	42,753	131,232	554,985	2,766
11929575 HAR Unit 2	HAR2C-H2 CT Structure PH1	2014 3/21/2014	928,995	127,170	1,056,065	4,431
11928240 HAR Unit 2	HAR2C-H2 Coal Mill OH	2014 3/24/2014	180,934	14,294	195,227	1,120 X
11950551 HAR Unit 2	HAR2C-Rpl Ht Etch Exp Joints	2014 3/24/2014	16,830	1,842	18,671	19
11960123 HAR Unit 2	HAR2C-Rpl HP Dm Pump Valves	2014 3/26/2014	28,030	9,577	37,606	34
11822262 HAR Unit 2	HAR2C-Rpl Ash Colletor	2014 3/28/2014	923,770	76,464	1,000,235	8,776 X
11879186 HAR Unit 2	HAR2C-Rpl Condenser Circ Piping	2014 3/28/2014	297,075	63,139	360,214	2,131
11966987 HAR Unit 2	HAR2C-Rpl TDSEP Disch Pipe	2014 4/3/2014	114,023	47,058	161,082	500
11944103 HAR Unit 3	HAR3C-H3 Rebag Partial 2014	2014 5/22/2014	100,061	19,450	119,210	322 X
11975849 HAR Unit 3	HAR3C-H3 Rpl Circ Pipe Vent Li	2014 5/24/2014	196,977	2,042	202,019	160
11846341 HAR Unit 3	HAR3C-Rpl Station Prot Relays	2014 5/30/2014	59,277	8,202	67,479	747
11985683 HAR Unit 3	HAR3C-Rewind W ID Fan Motor	2014 5/30/2014	23,779	12,366	250,144	243
11998497 HAR Unit 1	HAR1C-Rbld E Seal Trough Pump	2014 5/30/2014	13,399	1,879	15,278	14
11892065 HAR Unit 3	HAR3C-Rpl Condenser Tank	2014 6/6/2014	83,060	995	84,055	851
12016068 HAR Unit 0	HAROC-Rhd In Well Feed Pump	2014 7/9/2014	22,044	3,370	25,414	73
11928245 HAR Unit 2	HAR2C-H2 2D Coal Mill OH	2014 9/17/2014	1,181,265	45,556	1,226,621	17,445 X
11955266 HAR Unit 3	HAR3C-H3 Mercury/CEMs Upgrade	2014 10/14/2014	279,030	399	279,428	3,661 X
11955224 HAR Unit 3	HAR3C-H3 Instal Blr CO Analyz	2014 10/14/2014	295,894	-	295,894	3,819
11955273 HAR Unit 2	HAR2C-H2 Mercury Upgrade	2014 10/15/2014	351,010	977	351,987	4,939 X
12041975 HAR Unit 0	HAROC-HO Pond #5 Pump Rpl Rot Asmb	2014 10/17/2014	33,862	8,445	42,306	169
11986019 HAR Unit 1	HAR1C-1st Eye-Wash Shower Station	2014 10/23/2014	15,806	488	16,094	74
12050382 HAR Unit 1	HAR1C-Brl Blwdwn Recovery Blck Valve	2014 10/25/2014	11,242	3,223	14,465	14
11985013 HAR Unit 2	HAR2C-1st Eye-Wash Shower Station	2014 10/31/2014	13,404	3,936	17,340	43
11986002 HAR Unit 3	HAR3C-H3 Rpl Invertor Batterie	2014 11/11/2014	18,205	5,575	23,780	90
12022039 HAR Unit 3	HAR1C-1st Eye-Wash Shower Station	2014 11/17/2014	46,177	8,196	54,373	219
12050365 HAR Unit 3	HAR3C-Rpl Cell 9 CT Gearbox/fan/hub	2014 12/5/2014	68,785	10,963	79,748	567
12026658 HAR Unit 2	HAR2C-Rpl CT Gearbox	2014 12/5/2014	64,384	7,126	71,510	313
12041948 HAR Unit 1	HAR1C-H1 Rpl Opacity Monitor	2014 12/10/2014	75,348	918	76,265	313
11999508 HAR Unit 0	HAROC-Rhd Diesel Fire Pump	2014 12/18/2014	50,688	7,446	58,134	423
A.0001605.001.001.002 HAR Unit 0	HAROC-Direct ACI Mercury Reduction	2014 12/30/2014	2,079,551	-	2,079,551	26,416 X
A.0001645.001.001.001 HAR Unit 3	HAR3C-ACI-Mercury Reduction	2014 12/30/2014	525,001	-	525,001	10,022 X
A.0001644.001.001.001 HAR Unit 2	HAR2C-ACI-Mercury Reduction	2014 12/30/2014	520,014	-	520,014	10,354 X

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			Plant Parts & Equip - New & Used	2014	12/31/2014	\$	44	\$	(282,408)	\$	(282,364)	\$	-
A.0001550.002.001.002	HAR Unit 0	HAR Unit 2	HAR2C-Rpl Basement Floor	2014	12/31/2014		-		-		-		
A.0001550.046.001.001	HAR Unit 2	12069832 HAR Unit 3	HAR3C-Rpl Rebag Partial 2015	2015	1/30/2015	210,983	48,091		259,075		337	X	
A.0001550.315.001.002	HAR Unit 3	12027725 HAR Unit 3	HAR3C-Rpl MBFP Recirc Vlv	2015	2/5/2015	47,441	2,660		50,501		551	X	
A.0001550.232.001.001	HAR Unit 0	A.0001550.315.001.002 HAR Unit 1	HAR1C- ACI -Mercury Reduction	2015	2/27/2015	3,707,988			3,707,988		121,742	X	
A.0001550.175.001.001	HAR Unit 0	12181284 HAR Unit 0	HAROC-ODR SKF Base System	2015	3/10/2015	36,218			36,218		239		
A.0001550.310.001.001	HAR Unit 2	A.0001550.175.001.001 HAR Unit 1	HAROC-Inst DCS Main-Alm Shelf	2015	3/23/2015	110,889			110,889		91		
A.0001550.014.001.001	HAR Unit 0	A.0001550.166.001.001 HAR Unit 2	HAR2C-Rpl Ctrwr Motor Wiring	2015	4/25/2015	116,139			146,694		249		
A.0001550.231.001.001	HAR Unit 1	A.0001550.166.001.001 HAR Unit 2	HAROC-Rpl Paving Phase 3/16	2015	5/4/2015	207,810			245,743		331		
A.0001550.367.001.001	HAR Unit 2	A.0001550.367.001.001 HAR Unit 2	HAR2C-Rpl Rebag Partial 2015	2015	5/8/2015	186,058			25,485		211,543	X	
A.0001550.234.001.001	HAR Unit 0	A.0001550.140.001.002 HAR Unit 2	HAR2C-Rpl CT Motor	2015	5/29/2015	8,928			652		9,481	-	
A.0001550.234.001.002	HAR Unit 2	A.0001550.140.001.002 HAR Unit 0	HAROC-Rpl S LAD Pmp Rot Assmb	2015	6/15/2015	14,103			2,699		16,803		16
A.0001550.231.001.001	HAR Unit 1	A.0001550.231.001.001 HAR Unit 2	HAR2C-Rpl CT Structure PH2	2015	6/15/2015	4,080,262			402,946		4,483,208		75,192
A.0001550.231.001.001 HAR Unit 1	HAR Unit 2	HAR2C-Rpl Cell18 CT Mechan	HAR1C-Inst ESP Chem Injection	2015	6/30/2015	45,678			3,893		49,571		45
A.0001550.365.001.001	HAR Unit 2	A.0001550.365.001.001 HAR Unit 2	HAR1C-Rpl Cell15 Motor Wiring	2015	7/3/2015	18,670			2,567		21,237		29
A.0001550.366.001.001	HAR Unit 2	A.0001550.366.001.001 HAR Unit 2	HAR2C-Rpl Cell15 Mtr Wiring	2015	8/5/2015	13,029			2,404		15,434		28
A.0001550.172.001.001	HAR Unit 1	A.0001550.172.001.001 HAR Unit 2	HAR2C-Rpl Rpl Stack Landings	2015	8/13/2015	311,666			35,577		347,243		2,633
A.0001550.364.001.005	HAR Unit 1	A.0001550.364.001.005 HAR Unit 2	HAR1C-Rpl Cell 1&2 Fan Shrouds	2015	8/13/2015	137,504			119,194		149,518		
A.0001550.364.001.002	HAR Unit 1	A.0001550.364.001.002 HAR Unit 1	HAR1C-Rpl Cell 1&2 Mechanicals	2015	8/13/2015	161,220			25,712		186,932		1,005
A.0001550.364.001.003	HAR Unit 1	A.0001550.364.001.003 HAR Unit 1	HAR1C-Rpl Cells 1&2 Fan Motors	2015	8/13/2015	54,807			2,219		56,826		212
A.0001550.364.001.004	HAR Unit 1	A.0001550.364.001.004 HAR Unit 1	HAR1C-Rpl Cell 1&2 DisHdfr&Vlvs	2015	8/13/2015	254,490			13,867		267,957		1,398
A.0001550.305.001.001	HAR Unit 3	A.0001550.305.001.001 HAR Unit 3	HAR3C-Rpl CT Mechanicals	2015	8/13/2015	68,351			2,416		70,766		385
A.0001550.364.001.001	HAR Unit 1	A.0001550.364.001.001 HAR Unit 1	HAR1C-Rpl Cells 1-8 ElectrWiring	2015	8/13/2015	189,667			92,007		281,674		1,890
A.0001550.370.001.001	HAR Unit 1	A.0001550.370.001.001 HAR Unit 1	HAR1C-Rpl ESP WB4 IR-Set	2015	8/14/2015	46,390			17,591		63,980		45
A.0001550.172.001.001	HAR Unit 0	A.0001550.172.001.001 HAR Unit 0	HAROC-RR Xing Signal System	2015	8/14/2015	94,870			5,624		100,493		558
A.0001550.127.001.001	HAR Unit 3	A.0001550.127.001.001 HAR Unit 3	HAR3C-Rpl Blt Elevator	2015	8/20/2015	391,862			4,508		396,369		3,036
A.0001550.142.001.005	HAR Unit 1	A.0001550.142.001.005 HAR Unit 1	HAR1C-H1 Rpl CT Phase1	2015	8/20/2015	783,852			112,228		896,080		6,839
A.0001550.170.001.001	HAR Unit 0	A.0001550.170.001.001 HAR Unit 1	HAROC-Rpl Diesel Fire Pump Crt:	2015	8/26/2015	24,046			4,696		28,742		61
A.0001550.426.001.001	HAR Unit 1	A.0001550.426.001.001 HAR Unit 2	HAR1C-AUX CWL/Water Rawind	2015	8/26/2015	14,772			1,493		16,264		51
A.0001550.428.001.001	HAR Unit 2	A.0001550.428.001.001 HAR Unit 1	HAR2C-CTWR Cel 15 Mtr Rawnd	2015	9/16/2015	11,313			1,235		12,549		-
A.0001550.431.001.001	HAR Unit 1	A.0001550.431.001.001 HAR Unit 1	HAR1C-H1 E Mill Mtr Rawnd	2015	10/7/2015	46,623			1,755		48,378		153
A.0001550.116.001.001	HAR Unit 3	A.0001550.116.001.001 HAR Unit 3	HAR3C-H3 CEMs Foxboro Upgrade	2015	10/7/2015	165,262			683		165,945		1,427
A.0001550.065.001.001	HAR Unit 3	A.0001550.065.001.001 HAR Unit 3	HAR3C-H3 Rpl Condenser Circ Ppl	2015	10/12/2015	356,596			30,731		387,327		1,381
A.0001550.066.001.001	HAR Unit 3	A.0001550.066.001.001 HAR Unit 3	HAR3C-H3 Rpl SH Desuperheat Pl	2015	10/16/2015	307,407			48,963		356,370		1,275
A.0001550.033.001.001	HAR Unit 3	A.0001550.033.001.001 HAR Unit 3	HAR3C-Inst APH Fab Expr Jnts	2015	10/16/2015	48,379			464		489,443		2,002
A.0001550.229.001.001	HAR Unit 3	A.0001550.229.001.001 HAR Unit 3	HAR3C-Rpl Circ Rtm Pipe Expr Jnts	2015	10/21/2015	224,088			18,550		242,638		3,573
A.0001550.167.001.001	HAR Unit 3	A.0001550.167.001.001 HAR Unit 3	HAR3C-H3 Rpl Steam Drum Intern	2015	10/23/2015	260,171			12,945		279,646		1,781
A.0001550.134.001.001	HAR Unit 3	A.0001550.134.001.001 HAR Unit 3	HAR3C-Rpl Ctrwr Pump Expr Jnts	2015	10/27/2015	125,053			17,087		142,140		466
A.0001550.169.001.001	HAR Unit 3	A.0001550.169.001.001 HAR Unit 3	HAR3C-Rpl Circ Pump Schids & Piping	2015	10/27/2015	304,435			35,176		339,612		1,134
A.0001550.368.001.001	HAR Unit 3	A.0001550.368.001.001 HAR Unit 3	HAR3C-Rpl Cell10 CT Mechan	2015	10/30/2015	54,777			5,093		59,869		255
A.0001550.430.001.001	HAR Unit 0	A.0001550.430.001.001 HAR Unit 0	HAROC-Rpl Trn Cntr Septic Tan	2015	10/30/2015	12,981			546		13,528		15
A.0001550.431.001.001	HAR Unit 3	A.0001550.431.001.001 HAR Unit 3	HAR3C-Rpl W SealTrough RotAmsb	2015	11/4/2015	16,171			425		16,596		61
A.0001550.369.001.001	HAR Unit 3	A.0001550.369.001.001 HAR Unit 3	HAR3C-Rpl Defltn Fans VFDs	2015	11/1/2015	28,759			2,056		30,815		303
A.0001550.432.001.001	HAR Unit 3	A.0001550.432.001.001 HAR Unit 0	HAR3C-Rpl Defltn Fan Motors	2015	11/5/2015	18,747			3,949		22,696		67
A.0001550.435.001.001	HAR Unit 3	A.0001550.435.001.001 HAR Unit 0	HAROC-Indr ACI Mercury Reduc	2015	11/5/2015	-			-		-		X
A.0001550.175.001.001	HAR Unit 1	A.0001550.175.001.001 HAR Unit 1	HAR1C-H1 Upbrd CEMs Foxboro	2015	11/6/2015	176,885			937		177,622		511
A.0001550.163.001.001	HAR Unit 3	A.0001550.163.001.001 HAR Unit 3	HAR3C-Rpl Main Steam Vent Vlv	2015	11/6/2015	25,800			661		26,461		65
A.0001550.161.001.001	HAR Unit 3	A.0001550.161.001.001 HAR Unit 3	HAR3C-Rpl SH Spray Valves	2015	11/9/2015	97,999			15,972		113,871		959
A.0001550.434.001.001	HAR Unit 3	A.0001550.434.001.001 HAR Unit 3	HAR3C-Coal Mill A Vane Wheels	2015	11/10/2015	61,047			6,221		67,268		423
A.0001550.179.001.001	HAR Unit 3	A.0001550.179.001.001 HAR Unit 3	HAR3C-Coal Mill B Vane Wheels	2015	11/10/2015	70,929			2,676		73,605		450

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A.0001550.159.001.001	HAR Unit 3	HAR3C-Rpl Mill C Vane Wheels	2015	11/10/2015	56,717	3,656	60,374	413	X
A.0001550.168.001.001	HAR Unit 3	HAR3C-H3 Rpl GSU Oil Coolers	2015	11/11/2015	276,332	5,911	282,243	4,780	
A.0001550.216.001.001	HAR Unit 3	HAR3C-Coal Mill D Vane Wheels	2015	11/13/2015	63,1870	14,024	75,894	432	X
A.0001550.164.001.001	HAR Unit 3	HAR3C-Coal Mill E Vane Wheels	2015	11/13/2015	59,888	8,806	68,494	435	X
A.0001550.121.001.001	HAR Unit 3	HAR3C-H3 Rpl Stack Landings	2015	11/16/2015	305,042	30,894	335,236	3,005	
A.0001550.132.001.001	HAR Unit 3	HAR3C-H3 Rpl Drag Chain 2015	2015	11/16/2015	68,497	8,826	78,323	96	X
A.0001550.162.001.001	HAR Unit 3	HAR3C-Coal Mill C Exhaust Fan	2015	11/17/2015	181,659	3,779	185,438	1,066	X
A.0001550.144.001.001	HAR Unit 3	HAR3C-H3 Rebag Partial	2015	11/17/2015	108,503	18,868	127,371	127	X
A.0001550.062.001.001	HAR Unit 3	HAR3C-H3 Coolingtower Riser Pi	2015	11/19/2015	683,501	82,476	767,976	4,158	
A.0001550.160.001.001	HAR Unit 3	HAR3C-Coal Mill B Major OH	2015	11/19/2015	401,982	21,731	423,713	1,422	X
A.0001550.429.001.001	HAR Unit 3	HAR3C-Rpl MBFP Element 2015	2015	11/20/2015	554,771	2,762	557,333	520	
A.0001550.037.001.001	HAR Unit 3	HAR3C-Urg Condent Tube Clean Sy	2015	11/20/2015	65,476	33,972	687,449	14,723	
A.0001550.438.001.001	HAR Unit 2	HAR3C-S Condent Pump Mtr Rwd	2015	11/23/2015	7,913	647	8,561	-	
A.0001550.023.001.001	HAR Unit 3	HAR3C-Ewind H3 Generator	2015	11/26/2015	2,178,850	66,445	2,245,295	8,996	
A.0001550.215.001.001	HAR Unit 3	HAR3C-H3 Rewindn Exciter Rotor	2015	11/26/2015	1,637,903	40,813	1,678,616	9,772	
A.0001550.236.001.001	HAR Unit 2	HAR2C-H2 Mill C Mir Overhaul	2015	11/29/2015	1,063,520	134,84	1,197,104	4,317	X
A.0001550.122.001.001	HAR Unit 3	HAR3C-Rpl CT Drift Eliminators	2015	11/30/2015	540,889	166,849	707,738	2,053	
A.0001550.048.001.001	HAR Unit 2	HAR2C-Install SwGr Flood Dams	2015	12/7/2015	66,178	-	68,178	85	
A.0001550.233.001.001	HAR Unit 3	HAR3C-Rwdn Bl D Fan Motor	2015	12/7/2015	226,514	8,952	238,575	478	
A.0001550.047.001.001	HAR Unit 1	HAR1C-Instl SwGr Flood Dams	2015	12/7/2015	71,674	-	71,674	170	
A.0001550.049.001.001	HAR Unit 3	HAR3C-Instl SwGr Flood Dams	2015	12/7/2015	65,996	-	69,996	89	
A.0001550.119.001.001	HAR Unit 0	HAROC-Rpl Boiler Recovery HE	2015	12/17/2015	372,751	2,098	374,849	2,913	
A.0001550.132.001.001	HAR Unit 3	HAR3C-H3 Rpl Blr Disc Pump	2015	12/23/2015	198,417	18,528	216,945	655	
A.0001550.140.001.001	HAR Unit 2	HARZC-H2 CT Structure PHA	2015	12/23/2015	1,888,339	28,579	1,917,118	13,103	
A.0001550.142.001.003	HAR Unit 1	HAR1C-H1 Rpl CT Structure Phase2	2015	12/23/2015	1,315,421	235,462	1,548,883	6,305	
A.0001550.439.001.001	HAR Unit 1	HAR1C-Rpl EB4-TR Set	2016	2/29/2016	38,865	652	39,517	146	X
A.0001550.433.001.001	HAR Unit 2	HAR2C-H2 MBFP Recirc Valve	2016	2/29/2016	45,139	2,573	47,712	226	
A.0001550.435.001.001	HAR Unit 0	HAROC-Wtr Drainage Sprinklr/Piv	2016	3/31/2016	156,550	2,601	161,151	1,806	
A.0001550.120.001.002	HAR Unit 0	HAROC-HO RR Drainage Construct	2016	5/31/2016	763,469	-	762,469	11,932	X
A.0001550.267.001.002	HAR Unit 2	HAR2C-Rpl 2C/Mir Rebld 2016	2016	5/31/2016	24,677	1,422	26,135	126	X
A.0001550.027.001.001	HAR Unit 2	HAR2C-E 2C SPAC Motor Rewind	2016	5/31/2016	120,313	(1,358)	118,956	633	X
A.0001550.135.001.001	HAR Unit 1	HAR1C-Rpl Silo Aeration Blower	2016	5/31/2016	26,694	3,265	23,958	22	X
A.0001550.288.001.002	HAR Unit 3	HAR3C-Rpl Deflation Pipe 1/2	2016	6/28/2016	420,403	17,040	437,443	2,876	X
A.0001550.249.001.001	HAR Unit 1	HAR1C-Rpl CT Mechanicals Ph1	2016	6/28/2016	499,392	3,221	502,513	9,103	
A.0001550.277.001.001	HAR Unit 2	HAR2C-SBAC 2C/Mir Rebld 2016	2016	6/28/2016	314,550	122,939	437,489	7,521	X
A.0001550.139.001.001	HAR Unit 3	HAR3C-Rpl Flash Fluidization htr	2016	6/28/2016	49,490	2,530	52,019	236	X
A.0001550.189.001.002	HAR Unit 1	HAR1C-Rpl Stack Landings	2016	6/28/2016	390,442	19,470	410,112	3,285	
A.0001550.142.001.004	HAR Unit 1	HAR1C-H1 Rpl CT Phase3	2016	6/28/2016	1,925,383	508,375	2,433,758	37,852	
A.0001550.123.001.001	HAR Unit 0	HAROC-E-Rpl Inj Well Actuators	2016	7/28/2016	35,161	4,125	39,286	53	
A.0001550.140.001.004	HAR Unit 2	HAR2C-H2 CT Structure PHB	2016	7/28/2016	1,995,036	760,280	2,755,816	45,513	
A.0001550.099.001.001	HAR Unit 1	HAR1C-EBD Recovery block valve	2016	7/29/2016	8,207	592	8,800	43	
A.0001550.119.001.002	HAR Unit 1	HAR1C-Bldwn Nec Blk Vlv	2016	7/29/2016	18,896	291	18,987	612	
A.0001550.318.001.001	HAR Unit 2	HAR2C-Rpl Main Gas Actuator	2016	7/29/2016	10,923	95	11,018	54	
A.0001550.322.001.002	HAR Unit 2	HAR2C-Ins STLMT-H2 Cond Tube	2016	7/29/2016	1,987	116,524	118,511	442	
A.0001550.096.001.002	HAR Unit 2	HAR2C-H2 Blr Blowdown Separate	2016	7/29/2016	14,525	(133)	145,119	1,939	
A.0001550.218.001.001	HAR Unit 2	HAR1C-H1 Rpl Bottom Ash Bunker	2016	8/30/2016	2,762,723	-	2,762,723	68,288	
A.0001550.115.001.001	HAR Unit 1	HAR1C-H1 Rpl CT Mechanicals	2016	8/30/2016	24,627	4,612	29,239	194	X
A.0001550.140.001.004	HAR Unit 0	HAROC-HO Relift Pond #16	2016	9/24/2016	60,746	120,150	722,896	6,726	
A.0001550.268.001.002	HAR Unit 2	HAR2C-Rpl CT Mechanicals	2016	9/24/2016	314,108	12,593	326,701	4,996	
A.0001550.118.001.001	HAR Unit 0	HAROC-HO Relift Pond #16	2016	9/28/2016	116,753	6,722	123,475	745	
A.0001550.218.001.001	HAR Unit 1	HAR2C-E W Aeration Blwr Ohl	2016	9/28/2016	36,369	1,054	37,423	336	X
A.0001550.333.001.001	HAR Unit 2	HAR2C-H2 Rpl #5 CT Motor	2016	9/28/2016	5,762	5,261	11,023	26	

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A.0001550.334.001.001	HAR Unit 3	HAR3C-E H3 Rpl#2 CT Motor	2016	9/28/2016	3,446	4,587	8,033	6
A.0001550.254.001.001	HAR Unit 1	HAR1C-Rpl ID Fans Inlet Exp Jn	2016	10/28/2016	118,441	8,421	126,962	379
A.0001550.209.001.002	HAR Unit 2	HAR1C-H1 ESP Rpl Rappers	2016	10/28/2016	472,884	8,647	483,330	345 X
A.0001550.331.001.001	HAR Unit 2	HAR2C-E West Flash pump owhl	2016	10/28/2016	42,342	3,234	45,576	370 X
A.0001550.031.001.001	HAR Unit 1	HAR1C-H1 Rpl CT MCC's	2016	11/16/2016	51,798	2,904	516,703	11,034
A.0001550.036.001.001	HAR Unit 1	HAR1C-Rpl Turb Cont Sys&Soft	2016	11/16/2016	1,043,993	30,577	1,074,170	27,197
A.0001550.177.001.001	HAR Unit 1	HAR1C-Rpl Replace APH Baskets	2016	11/16/2016	1,339,093	300,317	1,633,409	32,143
A.0001550.147.001.001	HAR Unit 1	HAR1C-Rpl HRH Piping & Hanger	2016	11/16/2016	2,189,051	972,138	3,161,188	43,420
A.0001550.255.001.002	HAR Unit 1	HAR1C-ESP Upgrd Micro Voltg Contrlr	2016	11/16/2016	92,365	10,357	102,722	1,609
A.0001550.188.001.002	HAR Unit 1	HAR3C-E Rpl Gnt Condensate Tank	2016	11/16/2016	135,412	11,984	147,396	1,810
A.0001550.320.001.001	HAR Unit 3	HAR1C-Rpls Rbls Flash Vac Pmps	2016	11/16/2016	70,452	6,971	77,423	474
A.0001550.337.001.001	HAR Unit 3	HAR3C-E Rwdwrd D Coal Mill Mtr	2016	11/16/2016	124,634	5,744	130,378	529 X
A.0001550.338.001.001	HAR Unit 3	HAR3C-E Rwdwrd E Coal Mill Mtr	2016	11/16/2016	64,208	7,836	72,044	261 X
A.0001550.214.001.002	HAR Unit 1	HAR1C-U1 Rpl Shl Spray Valves	2016	11/29/2016	1,95,320	4,431	52,056	346 X
A.0001550.322.001.001	HAR Unit 3	HAR3C-E Rpl Relay Room AC	2016	12/15/2016	24,579	3,610	28,589	248
A.0001550.142.001.002	HAR Unit 1	HAR1C-H1 Rpl CT Phase4	2016	12/20/2016	1,32,167	194,940	1,522,107	8,663
A.0001550.176.001.001	HAR Unit 2	HAR2C-H2 Upgrade CEMs Foxboro	2016	12/20/2016	222,214	991	223,305	2,074
A.0001550.101.001.002	HAR Unit 1	HAR1CUT CT Riser Pipes	2016	12/28/2016	643,052	141,721	784,772	815
A.0001550.284.001.002	HAR Unit 3	HAR3C-Rpl CT Mech Ph1 -New	2016	12/28/2016	228,408	7,807	238,215	170
A.0001550.181.001.002	HAR Unit 1	HAR1C-Rpl H1 Mill A Exhaustor Fan	2016	12/28/2016	176,192	9,502	185,693	5,230 X
A.0001550.112.001.001	HAR Unit 1	HAR1C-H1 Rpl Drag Chain	2016	12/29/2016	67,486	1,974	69,460	268 X
A.0001550.108.001.002	HAR Unit 1	HAR1C-U1 Rpl CondCircPipe NEW	2016	12/30/2016	374,994	153,665	528,659	453
A.0001550.289.001.001	HAR Unit 3	HAR3C-E Rpl Deflation Pipe 2/2	2017	1/30/2017	376,914	84,739	461,653	1,773 X
A.0001550.294.001.001	HAR Unit 3	HAR1C-Rpl Inverter	2017	1/30/2017	146,188	9,421	153,609	1,274 X
A.0001550.339.001.001	HAR Unit 1	HAR1C-E Rpl Condensate TR Set	2017	1/30/2017	31,732	3,259	34,991	77 X
A.0001550.343.001.001	HAR Unit 3	HAR3C-E Rpl O2 Probe	2017	1/30/2017	16,760	1,352	18,112	15
A.0001550.146.001.001	HAR Unit 3	HAR3C-H2 Rebar Partia 2017	2017	3/30/2017	144,745	8,158	152,903	1,536 X
A.0001550.340.001.001	HAR Unit 0	HAROC-E Rpl Inj Well Div Vvls	2017	3/30/2017	145,383	64,571	207,954	1,477
A.0001550.344.001.001	HAR Unit 2	HAR2C-H2 Rpl C Mill Exh Fan Brg	2017	3/30/2017	193,676	912	194,588	2,164 X
A.0001550.341.001.001	HAR Unit 3	HAR3C-E Rpl East Condensate Tank	2017	3/30/2017	71,244	4,154	75,398	860
A.0001550.137.001.001	HAR Unit 2	HAR2C-H2 Rpl Lab Analyzers 201	2017	4/24/2017	88,564	5,753	94,317	753
A.0001550.190.001.001	HAR Unit 2	HAR3C-H2 Mill B Major Major OH	2017	5/18/2017	822,506	115,571	938,076	11,919 X
A.0001550.304.001.002	HAR Unit 3	HAR3C-Rpl SBAC JoyVibMotSys	2017	5/18/2017	31,532	1,739	33,271	124 X
A.0001550.097.001.002	HAR Unit 2	HAR2C-H2 Rpl Drag Chain 2017	2017	5/18/2017	55,564	3,163	61,727	77 X
A.0001550.142.001.001	HAR Unit 1	HAR1C-H1 Rpl CT Phase5	2017	5/18/2017	2,200,507	213,515	2,414,022	20,007
A.0001550.269.001.001	HAR Unit 2	HAROC-E Rpl Circ Pump Suction Ho	2017	5/26/2017	214,043	34,882	248,925	1,572
A.0001550.342.001.001	HAR Unit 0	HAROC-E Rpl Inst Air Compr	2017	5/26/2017	140,847	(65,811)	75,036	3,721
A.0001550.273.001.001	HAR Unit 2	HAR2C-H2 Rpl Gnt Air Compr	2017	5/26/2017	118,418	2,737	121,155	2,055
A.0001550.453.001.001	HAR Unit 2	HAR2C-H2 Rpl Gnt Doors -20587	2017	5/28/2017	284,407	54,123	338,530	1,224 X
A.0001550.219.001.001	HAR Unit 2	HAR2C-Replace APH Baskets	2017	5/28/2017	1,345,333	141,154	1,487,187	18,137
A.0001550.185.001.001	HAR Unit 2	HAR2C-H2 Rpl #3 HP FWV	2017	5/28/2017	882,249	99,570	985,818	9,224
A.0001550.451.001.001	HAR Unit 2	HAR2C-Rpl Regns Inlet Expnts -20	2017	5/28/2017	208,881	59,949	268,830	522 X
A.0001550.500.001.003	HAR Unit 3	HAR3C-E Rpl Gen CU and AutoSynch	2017	5/26/2017	17,373	534	17,907	111
A.0001550.243.001.002	HAR Unit 0	HAROC-Rpl Control Sys Sim NEW	2017	5/26/2017	765,477	4,438	789,915	656
A.0001550.275.001.001	HAR Unit 2	HAR2C-H1 SH Spray Valves	2017	6/9/2017	82,853	8,120	90,973	824
A.0001550.500.001.004	HAR Unit 3	HAR3C-Rpl Cell 7 & 11 CT Mech	2017	6/9/2017	116,187	7,318	123,505	630
A.0001550.449.001.001	HAR Unit 2	HAR2C-Rpl Boiler Corner Tubes -2134	2017	6/9/2017	2,467,921	265,561	2,733,483	26,025
A.0001550.454.001.001	HAR Unit 2	HAR2C-Rpl HRH Piping & Hangers -205	2017	6/9/2017	2,156,067	407,841	2,563,908	20,800
A.0001550.429.001.002	HAR Unit 3	HAR3C Rebuild H3 BFP Element	2017	6/9/2017	(157,457)	-	(157,457)	11
A.0001550.019.001.001	HAR Unit 2	HAR2C-Rpl Turbine Cont Sys&Sof	2017	6/16/2017	918,538	1,340	919,878	24,061

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A.0001550.308.001.001	HAR Unit 2	HAR2C-H2 Upgrd DCS Opr stn	2017	6/28/2017	528,466	4,658	533,124	6,643
A.0001550.500.001.005	HAR Unit 0	HAROC-Rpl Main Fire Alm Pnl	2017	6/30/2017	18,124	2,480	20,603	16
A.0001550.299.001.001	HAR Unit 3	HAR3C-BAC Joy Mir Rebl 2016	2017	7/3/2017	480,173	59,847	540,021	7,989 X
A.0001550.232.001.002	HAR Unit 0	HAROC-Vibration Mtrn Sys	2017	7/19/2017	(4)	4	-	-
A.0001550.093.001.001	HAR Unit 2	HAR2C-H2 Rpl Distribution Valv	2017	7/24/2017	618,806	7,132	625,938	7,396
A.0001550.442.001.002	HAR Unit 1	HAR1C-ESP Rebuild TR-sets Ph1	2017	7/31/2017	91,658	8,395	100,653	346 X
A.0001550.500.001.007	HAR Unit 1	HAR1C-CT Fan Motor #7 Rewind	2017	8/11/2017	7,812	820	8,632	66
A.0001550.500.001.008	HAR Unit 2	HAR3C-N Cond pump mtr rewind	2017	8/12/2017	7,400	308	7,708	28
A.0001550.500.001.006	HAR Unit 3	HAR3C-Rpl 2C Heater Drains Vlv	2017	8/23/2017	10,833	469	11,303	47
A.0001550.500.001.011	HAR Unit 2	HAR3C-Rpl CT Cell #2 Mechanicals	2017	10/30/2017	98,358	560	98,919	95
A.0001550.500.001.010	HAR Unit 3	HAR3C-CT Mklp Pump Mtr Rewind	2017	11/20/2017	7,555	1,153	8,508	-
A.0001550.448.001.002	HAR Unit 2	HAR1C-Rpl MBFP Recirc Vlv	2017	11/27/2017	76,467	3,101	79,568	637
A.0001550.500.001.013	HAR Unit 3	HAR3C-N Cond Motor Rewind	2017	12/13/2017	11,937	1,250	13,187	119
A.0001550.500.001.012	HAR Unit 1	HAR1C-Rpl W #2 O2 Probe	2017	12/13/2017	16,507	2,133	18,640	77
A.0001550.258.001.002	HAR Unit 1	HAR1C-Rpl SBAC 1B Vib Mon Sys	2017	12/14/2017	23,221	2,575	25,996	182 X
A.0001550.262.001.002	HAR Unit 1	HAR1C-SBAC 1B Mir Rebl 2017	2017	12/18/2017	516,725	24,505	541,230	3,241 X
A.0001550.194.001.002	HAR Unit 2	HAR2C-Rpl H2 Mill E Exhauster	2017	12/18/2017	83,375	14,396	97,771	216 X
A.0001550.500.001.014	HAR Unit 3	HAR3C-Rpl W CT Mktpl Up Pmp Asb	2017	12/25/2017	22,403	1,891	24,294	22
A.0001550.462.001.002	HAR Unit 0	HAROC-Remove UG Fuel Tanks	2018	4/19/2018	-	50,652	50,652	-
A.0001550.461.001.002	HAR Unit 0	HAROC-inst Above Grade Fuel Tanks	2018	4/24/2018	31,468	-	31,468	82
A.0001550.443.001.002	HAR Unit 1	HAR1C-ESP Rebuild TR-sets Ph2	2018	5/15/2018	91,868	5,038	96,906	1,205 X
A.0001550.250.001.002	HAR Unit 1	HAR1C-Rpl CT Mechanicals Ph2	2018	6/13/2018	38,774	10,003	39,777	1,598
A.0001550.500.001.024	HAR Unit 0	HAROC-CESP B/F Element	2018	6/13/2018	16,304	-	16,304	909
A.0001550.481.001.002	HAR Unit 0	HAROC-Trng Ctr/Fire Detection	2018	6/13/2018	42,399	3,426	45,825	100
A.0001550.500.001.009	HAR Unit 2	HAR2C-Rpl S Cond Pump Element	2018	6/14/2018	80,736	5,763	86,499	2,027
A.0001550.443.001.018	HAR Unit 2	HAR2C-Rpl Q2 Probes	2018	6/25/2018	21,631	261	21,892	113
A.0001550.500.001.023	HAR Unit 1	HAR1C-SUBFP Motor Rewind	2018	6/25/2018	211,706	30,023	241,729	186
A.0001550.500.001.017	HAR Unit 3	HAR3C-CT N Circ Pump Mtr Rewind	2018	6/25/2018	136,335	16,919	153,454	894
A.0001550.480.001.002	HAR Unit 1	HAR1C-W Circ Pmp Wire Replaced	2018	6/25/2018	75,552	6,165	79,716	832
A.0001550.461.001.002	HAR Unit 0	HAR2C-Rpl Deflaction Fan Motors	2018	6/25/2018	17,716	4,078	21,794	80 X
A.0001550.443.001.002	HAR Unit 1	HAROC-Rpl Pavng Phase 5/6	2018	6/25/2018	252,160	123,899	376,158	603
A.0001550.500.001.018	HAR Unit 1	HAR1C-CTMU Pump Rpl Rotating Assy	2018	6/25/2018	19,678	2,846	22,524	166
A.0001550.500.001.023	HAR Unit 1	HAROC-Rpl Pavng Phase 6/6	2018	6/25/2018	180,040	73,991	253,132	384
A.0001550.481.001.002	HAR Unit 3	HAR3C-Inst Eye Wash Station	2018	8/10/2018	23,337	-	23,337	197
A.0001550.500.001.026	HAR Unit 2	HAR2C-Rpl W FD Fn Oil Clr Tubes	2018	8/10/2018	22,246	2,886	25,132	352
A.0001550.021.001.002	HAR Unit 0	HAR2C-H2 Install Ash Silo Elev	2018	9/18/2018	56,509	11,707	577,616	7,571 X
A.0001550.500.001.019	HAR Unit 1	HAROC-Rpl ACI Diverter Valves	2018	9/27/2018	12,891	536	13,427	242
A.0001550.034.001.002	HAR Unit 0	HAROC-Rpl Pond 7 Floating Pump	2018	9/27/2018	14,866	490	15,356	244
A.0001550.500.001.016	HAR Unit 3	HAR3C-Rpl #2 FVH 2B Valve	2018	10/25/2018	40,365	(433)	48,579	260
A.0001550.500.001.020	HAR Unit 2	HAR3C-W Vac Pump Overhaul	2018	11/13/2018	433	1,623,841	155,385	0 - X
A.0001550.500.001.022	HAR Unit 0	HAR3C-Rpl APH Baskets	2018	11/15/2018	36,027	65,984	430,011	3,258 X
A.0001550.500.001.021	HAR Unit 3	HAR3C-Rpl Bnsse Doors -20582	2018	11/19/2018	55,589	10,237	69,825	381
A.0001550.500.001.027	HAR Unit 3	HAR2C-Inst CT Cable tray	2018	11/19/2018	210,340	28,799	239,129	3,331
A.0001550.478.001.002	HAR Unit 2	HAR2C-Inst Boiler Economizer	2018	11/23/2018	4,189,538	1,065,180	5,254,718	89,272
A.0001550.283.001.002	HAR Unit 3	HAR3C-ACM Heat Exchangers	2018	11/23/2018	234,268	93,521	327,790	3,827
A.0001550.458.001.002	HAR Unit 3	HAR3C-Inst CT Cable tray	2018	11/23/2018	131,881	47,081	178,962	1,262 X
A.0001550.500.001.032	HAR Unit 2	HAR2C-Replace Cooling Tower Acid T3	2018	11/23/2018	71,774	7,628	79,402	712 X
A.0001550.028.001.002	HAR Unit 2	HAROC-Rpl Main Fire Alm Pnl	2018	11/23/2018	350,665	29,825	380,490	2,355
A.0001550.151.001.002	HAR Unit 3	HAR3C-Partial Drag Chain 2018	2018	11/26/2018	60,069	7,872	67,940	374
A.0001550.082.001.002	HAR Unit 3	HAR3C-Rpl Bnsse Inlet Duct Jnts	2018	11/26/2018	35,458	2,611	38,069	13
A.0001550.455.001.002	HAR Unit 3	HAR3C-EHC Pump Sys						
A.0001550.500.001.033	HAR Unit 3	HAR3C-Aux Cb Wtr Pmp Mtr Rwd						
A.0001550.500.001.039	HAR Unit 3	HAR3C-N ACW Pump Mtr Rwd						

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A.0001550.309.001.002	HAR Unit 3	2018	11/26/2018	780,792	11,494	792,286	14,097
A.0001550.500.001.043	HAR Unit 3	2018	11/28/2018	8,758	1,277	10,035	33
A.0001550.500.001.036	HAR Unit 3	2018	11/28/2018	10,673	5,426	16,099	96
A.0001550.083.001.002	HAR Unit 3	2018	11/29/2018	151,767	711	152,479	2,766
A.0001550.473.001.002	HAR Unit 3	2018	11/29/2018	88,488	5	88,493	712
A.0001550.500.001.045	HAR Unit 2	2018	12/21/2018	6,482	175	6,657	48
A.0001550.500.001.040	HAR Unit 3	2018	12/21/2018	72,700	8,709	81,409	387
A.0001550.500.001.038	HAR Unit 3	2018	12/21/2018	11,757	594	12,169	4
A.0001550.500.001.028	HAR Unit 3	2018	12/21/2018	170,115	4,071	174,185	3,665 X
A.0001550.500.001.041	HAR Unit 3	2018	12/26/2018	20,253	1,169	21,422	131
A.0001550.500.001.031	HAR Unit 0	2018	12/26/2018	118,168	-	118,168	1,590
A.0001550.500.001.030	HAR Unit 3	2018	12/26/2018	72,287	8,605	80,892	1,086
A.0001550.500.001.042	HAR Unit 1	2018	12/26/2018	31,062	5,227	36,288	106 X
A.0001550.500.001.034	HAR Unit 0	2018	12/26/2018	106,556	-	106,556	80
A.0001550.244.001.002	HAR Unit 0	2018	12/26/2018	506,192	606	507,098	23,479 X
A.0001550.475.001.002	HAR Unit 3	2018	12/26/2018	1,227,170	204,545	1,431,715	19,406
A.0001550.500.001.029	HAR Unit 1	2019	1/29/2019	48,881	2,818	51,998	676
A.0001550.446.001.002	HAR Unit 1	2019	1/31/2019	48,906	12,016	493,922	11,463
A.0001550.450.001.002	HAR Unit 2	2019	1/31/2019	464,132	31,207	495,339	7,959
A.0001550.500.001.035	HAR Unit 3	2019	1/31/2019	10,058	7,408	17,467	83
A.0001550.376.001.002	HAR Unit 1	2019	4/25/2019	72,492	339,753	1,063,245	8,941
A.0001550.500.001.048	HAR Unit 1	2019	4/30/2019	18,770	330	19,100	87
A.0001550.383.001.002	HAR Unit 1	2019	4/30/2019	51,833	2,319	54,152	628
A.0001550.375.001.002	HAR Unit 1	2019	5/27/2019	24,207	5,725	29,931	186
A.0001550.446.001.002	HAR Unit 1	2019	5/28/2019	8,843	1,259	10,102	68
A.0001550.251.001.002	HAR Unit 1	2019	5/28/2019	356,762	11,024	367,786	2,220
A.0001550.387.001.002	HAR Unit 1	2019	5/28/2019	156,207	13,590	163,797	2,036
A.0001550.378.001.002	HAR Unit 1	2019	5/28/2019	13,029	1,556	14,585	100
A.0001550.375.001.002	HAR Unit 1	2019	5/30/2019	34,557	701	35,258	99
A.0001550.379.001.002	HAR Unit 1	2019	5/31/2019	44,598	18,254	460,852	10,282
A.0001550.251.001.002	HAR Unit 1	2019	5/31/2019	1,623,399	174,073	1,797,472	68,428
A.0001550.387.001.002	HAR Unit 1	2019	5/31/2019	838,471	168,830	1,007,302	21,586
A.0001550.378.001.002	HAR Unit 1	2019	5/31/2019	250,743	55,729	306,472	3,724
A.0001550.375.001.049	HAR Unit 1	2019	5/31/2019	98,743	24,026	122,768	122
A.0001550.285.001.002	HAR Unit 3	2019	6/21/2019	70,877	8,472	79,349	1,947
A.0001550.457.001.002	HAR Unit 3	2019	6/21/2019	6,261	343	6,604	- X
A.0001550.456.001.002	HAR Unit 3	2019	6/26/2019	203,687	403	204,091	1,095
A.0001550.500.001.037	HAR Unit 1	2019	6/26/2019	83,693	255	83,948	863
A.0001550.382.001.002	HAR Unit 3	2019	6/26/2019	12,764	130	12,894	412
A.0001550.500.001.044	HAR Unit 0	2019	6/27/2019	397,516	96,542	494,059	6,080 X
A.0001550.447.001.002	HAR Unit 1	2019	6/27/2019	1,352,713	102,184	1,454,897	44,031
A.0001550.500.001.054	HAR Unit 3	2019	6/27/2019	168,162	1,367	169,530	892 X
A.0001550.500.001.057	HAR Unit 3	2019	6/27/2019	206,063	26,016	232,078	7,978 X
A.0001550.500.001.053	HAR Unit 1	2019	6/27/2019	523,78	60,541	584,219	17,955
A.0001550.500.001.046	HAR Unit 1	2019	6/27/2019	376,385	11,728	383,313	4,193
A.0001550.447.001.002	HAR Unit 1	2019	6/27/2019	41,670	2,499	44,169	340
A.0001550.500.001.050	HAR Unit 1	2019	6/28/2019	447,364	5,263	452,627	15,410
A.0001550.252.001.002	HAR Unit 1	2019	6/28/2019	291,415	10,554	301,969	3,514 X
A.0001550.207.001.002	HAR Unit 2	2019	6/28/2019	3,020	956	3,976	-
A.0001550.468.001.002	HAR Unit 1	2019	6/28/2019	16,442	1,189	12,131	160 X
A.0001550.467.001.002	HAR Unit 1	2019	7/29/2019	5,954	2,838	19,280	112
A.0001550.500.001.061	HAR Unit 0	2019	7/29/2019	5,259	-	6,213	-
A.0001550.500.001.047	HAR Unit 1	2019	7/29/2019	-	-	-	-

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A.0001550.500.001.063	HAR Unit 2	HAR2C-Rpl Actuator Ext Block Vlv #5	2019	7/31/2019	5,588	501	6,089	-
A.0001550.265.001.002	HAR Unit 2	HAR2C-MH1 A Major Major OH	2019	8/1/2019	9,722	570	10,293	15
A.0001550.018.001.002	HAR Unit 0	HAROC-Rpl Paving Phase 4/6	2019	8/27/2019	25,763	1,438	27,201	2,643 X
A.0001550.500.001.064	HAR Unit 2	HAR2C- Rewind Turbine Brg Oil Pump	2019	8/28/2019	277,258	98,994	376,252	1,501
A.0001550.259.001.002	HAR Unit 1	HAR1C-SBAC 1A Mir Relbd	2019	9/1/2019	6,233	962	7,195	-
A.0001550.500.001.066	HAR Unit 0	HAROC-Rpl Welding Ship East Oh DR	2019	9/27/2019	24,982	248	25,230	649 X
A.0001550.334.001.002	HAR Unit 3	HAR3C-Overall Stack Elevator	2019	9/27/2019	15,947	1,201	17,147	20
A.0001550.373.001.002	HAR Unit 0	HAROC-Rpl Fire Hydrants & Valves	2019	9/27/2019	41,795	31,783	449,778	3,322
A.0001550.500.001.062	HAR Unit 1	HAR1C-Rpl ACH Diverter Valve	2019	9/27/2019	447,534	160,057	607,591	3,983
A.0001550.500.001.067	HAR Unit 3	HAR3C-Rpl HRH Oil Trip Vlvs	2019	9/30/2019	6,694	446	7,140	-
A.0001550.208.001.002	HAR Unit 3	HAR3C-Partial Rebag	2019	10/28/2019	41,898	5,681	47,580	182
A.0001550.080.001.002	HAR Unit 0	HAROC-RR Drainage Import Pbv	2019	11/22/2019	119,132	21,112	140,244	561 X
A.0001550.500.001.056	HAR Unit 3	HAR3C-Circ Pump Mtr Var Xfmr	2019	11/27/2019	96,510	5,326	102,536	1,438
A.0001550.500.001.055	HAR Unit 2	HAR2C-C Circ Pump Mtr Var Xfmr	2019	11/27/2019	3,681	248	3,929	-
A.0001550.500.001.068	HAR Unit 2	HAR2C CT 14 Fan Motor Rewind	2019	11/27/2019	3,694	365	4,059	-
A.0001550.500.001.059	HAR Unit 2	HAR2C-Rebuild 2C SBAC Blower	2019	12/19/2019	4,244	999	5,244	-
A.0001550.500.001.074	HAR Unit 0	HAROC-Rpl Pond 17 Lvl Xmttr	2019	12/20/2019	6,743	497	7,240	32
A.0001550.500.001.071	HAR Unit 2	HAR2C-Rpl Deluge Vlvs Cntrl Pnl	2019	12/20/2019	8,646	1,497	10,142	17
A.0001550.500.001.073	HAR Unit 1	HAR1C-Rpl Deluge Vlvs Cntrl Pnl	2019	12/20/2019	8,546	1,497	10,142	17
A.0001550.500.001.072	HAR Unit 3	HAR3C-Rpl Deluge Vlvs Cntrl Pnl	2019	12/20/2019	8,716	1,497	10,212	17
A.0001550.500.001.069	HAR Unit 3	HAR3C-W-BGP Motor Rewind	2019	12/20/2019	78,605	495	79,101	850
A.0001550.464.001.002	HAR Unit 1	HAR1C-Inst Online Vib Wntt Sys	2020	1/27/2020	49,785	0	49,785	1,678
A.0001550.500.001.070	HAR Unit 2	HARZC-Rpl O2 Probes E2 and E7	2020	2/28/2020	24,656	479	25,135	464
A.0001550.242.001.002	HAR Unit 0	HAROC-Purchase Hydrogen Generator	2020	3/18/2020	4	(4)	-	-
A.0001550.459.001.002	HAR Unit 2	HAR2C-Inst Online Vib Wntt Sys	2020	3/23/2020	55,326	-	55,326	1,512
A.0001550.500.001.076	HAR Unit 2	HAR2C-Rpl E6 O2 Probe	2020	3/23/2020	12,879	498	13,377	275
A.0001550.500.001.078	HAR Unit 3	HAR3C-Rpl Mercury Analyzer	2020	3/23/2020	74,861	2,477	77,339	346 X
A.0001550.500.001.074	HAR Unit 0	HAR2C-Rpl TDEPP Discharge Pipe	2020	4/14/2020	44,766	5,671	50,436	214
A.0001550.500.001.073	HAR Unit 2	HAR1C-NBFP Oil Pump Mtr Rwd	2020	4/15/2020	4,573	455	5,027	-
A.0001550.500.001.072	HAR Unit 1	HAR1C-Rpl E6 O2 Probe	2020	4/15/2020	11,340	490	11,831	309
A.0001550.500.001.075	HAR Unit 1	HAR2C-Rpl Ext Blk Vlv Actuator	2020	4/15/2020	21,293	487	21,780	109
A.0001550.466.001.003	HAR Unit 2	HAR2C-Rpl Gen-Hydrogen Purity Monit	2020	5/8/2020	121,032	516	121,548	2,163
A.0001550.235.001.002	HAR Unit 2	HAR2C-H2 Rabbg Partial 2020	2020	5/29/2020	287,383	35,428	327,577	-
A.0001550.392.001.002	HAR Unit 2	HAR2C-H2 Rpl Burners	2020	5/29/2020	522,600	63,994	586,594	6,212
A.0001550.471.001.002	HAR Unit 2	HAR2C-CT MCCs on F-Bus	2020	5/29/2020	268,779	6,941	275,720	3,300
A.0001550.406.001.002	HAR Unit 2	HAR2C-Rpl Steam Cooled Space Tubes	2020	5/29/2020	630,384	39,440	678,823	5,681
A.0001550.500.001.065	HAR Unit 2	HAR2C-Inst Sootblwr Blck Vlvs	2020	5/29/2020	81,229	-	81,229	889 X
A.0001550.472.001.002	HAR Unit 2	HAR2C-Rpl EHc-Pump Sys.	2020	5/29/2020	323,134	9,444	332,577	3,320
A.0001550.421.001.001	HAR Unit 2	HAR2C-Gen Stator Rewind	2020	5/29/2020	2,924,253	679,456	3,603,709	38,520
A.0001550.395.001.002	HAR Unit 2	HAR2C-East Vac Pump Overhaul	2020	5/29/2020	50,359	6,498	56,857	302 X
A.0001550.187.001.002	HAR Unit 2	HAR2C-H2 Rpl #6 LP FW/H	2020	5/29/2020	555,330	152,256	708,186	9,301
A.0001550.185.001.002	HAR Unit 2	HAR2C-H2 Rpl #6 LP FW/H	2020	5/29/2020	555,479	153,042	708,521	9,388
A.0001550.407.001.002	HAR Unit 2	HAR2C-Inst Maint Switch on MV Blks	2020	5/29/2020	193,333	(7,004)	191,329	1,158
A.0001550.270.001.002	HAR Unit 2	HAR2C-Rpl Drag Chain 2020	2020	5/29/2020	63,287	4,669	69,956	287 X
A.0001550.421.001.001	HAR Unit 2	HAR2C-ID Fan Damper Actuator	2020	5/29/2020	48,055	146	48,201	62
A.0001550.470.001.002	HAR Unit 2	HAR2C-Rpl CT River Inlet Vlvs	2020	6/30/2020	297,247	58,654	355,901	10,824
A.0001550.406.001.002	HAR Unit 2	HAR2C-Rpl ID Fan Dsich Dampers	2020	6/30/2020	216,304	111,592	328,396	3,770
A.0001550.407.001.002	HAR Unit 2	HAR2C-Rpl C Circ Suction Gear	2020	7/1/2020	15,806	5,340	19,146	239
A.0001550.421.001.001	HAR Unit 2	HAR2C-Rpl FW/H2 shell Side PRV	2020	7/1/2020	10,801	1,702	12,503	116
A.0001550.500.001.003	HAR Unit 2	HAR2C-Rpl FW/H8 Shell Side PRV	2020	7/1/2020	17,152	1,890	19,041	192
A.0001550.500.001.103	HAR Unit 2	HAR2C-Rpl Steam Driven Bfp	2020	7/1/2020	9,978	1,195	11,173	108

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A.0001550.500.001.101	HAR Unit 2	HAR2C-Rpl HP Htr Drains	2020	7/1/2020	15,249	4,888	20,137	146
A.0001550.257.001.002	HAR Unit 1	HAR1C-Rpl SBAC 1A Vib Monitoring	2020	7/1/2020	26,900	882	29,782	1,370 X
A.0001550.500.001.104	HAR Unit 2	HAR2C-Rpl FW/H Shel Side PRV	2020	7/1/2020	14,040	1,076	15,116	184
A.0001550.500.001.099	HAR Unit 2	HAR2C-Rpl 2A Mill Duct Exp Jnt	2020	7/1/2020	21,861	2,858	24,719	310 X
A.0001550.405.001.002	HAR Unit 2	HAR2C-Install XFMR DGA	2020	7/1/2020	88,052	-	88,052	2,193
A.0001550.346.001.002	HAR Unit 2	HAR2C-H2 Rpl Foxboro FBM's	2020	7/24/2020	1,813,107	78,051	1,891,158	47,582
A.0001550.500.001.084	HAR Unit 2	HAR2C-Rpl Mercury Analyzer	2020	7/24/2020	76,397	2,115	78,513	813 X
A.0001550.500.001.111	HAR Unit 1	HAR2C-Rpl Big Blowdown Vlvs	2020	7/24/2020	14,398	817	15,715	123
A.0001550.500.001.079	HAR Unit 2	HAR2C-Rpl GSU 230kV Bushings	2020	7/27/2020	217,901	8,230	226,130	4,249
A.0001550.500.001.089	HAR Unit 3	HAR3C-Install Cation Conductivity D	2020	8/15/2020	19,427	(5)	19,421	447
A.0001550.500.001.088	HAR Unit 1	HAR1C-Install Cation Conductivity D	2020	8/18/2020	22,774	(5)	22,769	448
A.0001550.500.001.090	HAR Unit 2	HAR2C-Install Cation Conductivity D	2020	8/18/2020	19,829	(5)	19,824	447
A.0001550.500.001.080	HAR Unit 1	HAR1C Inst Dis O2 Analyzer	2020	8/19/2020	15,164	518	15,682	324
A.0001550.500.001.112	HAR Unit 1	HAR1C-Rpl Acid Tank Lvl Xmtr	2020	8/19/2020	9,684	543	10,227	-
A.0001550.500.001.109	HAR Unit 1	HAR1C-Rpl Small Blowdown Throttle V	2020	8/20/2020	4,573	541	5,114	-
A.0001550.500.001.082	HAR Unit 0	HAR3C-Rpl N03 Inj Well DV Actr	2020	8/24/2020	15,422	490	15,912	308
A.0001550.500.001.107	HAR Unit 3	HAR3C-Rpl N03 Econ Hopper Vlv	2020	8/26/2020	8,446	310	8,756	81
A.0001550.500.001.106	HAR Unit 2	HAR2C-Blowdown Block and Throttle V	2020	8/26/2020	7,726	504	8,230	81
A.0001550.500.001.113	HAR Unit 0	HAROC-BD Recovery Backfill Mod	2020	9/4/2020	15,386	-	15,386	141
A.0001550.500.001.097	HAR Unit 2	HAR2C-Rpl W Reheat Drain Vlv Actuat	2020	9/21/2020	14,441	2,432	16,873	-
A.0001550.500.001.108	HAR Unit 1	HAR1C-3A Htr Drains Control Vlv	2020	9/21/2020	9,759	3,512	13,271	107
A.0001550.345.001.002	HAR Unit 3	HAR3C-Mill B Major Overhaul	2020	9/24/2020	515,647	43,081	558,728	28,478 X
A.0001550.500.001.086	HAR Unit 2	HAR2C-Inst MWP/F Wtr in Oil	2020	9/24/2020	23,266	1,011	24,277	462
A.0001550.500.001.091	HAR Unit 2	HAR2C Inst Dis O2 Analyzer	2020	9/24/2020	23,557	2,636	26,193	336
A.0001550.500.001.093	HAR Unit 2	HAR2C-Rpl HP Heater Drain to DA	2020	9/24/2020	67,788	15,141	82,929	1,806
A.0001550.500.001.114	HAR Unit 3	HAR3C-Rbd E (Fiyash) Vac Pump	2020	9/28/2020	59,764	7,170	66,934	332 X
A.0001550.500.001.092	HAR Unit 2	HAR2C-Rpl FW/H 3 Steam Separator	2020	9/28/2020	14,669	2,157	16,826	172
A.0001550.500.001.134	HAR Unit 1	HAR1 CT Fan Motor Cell 1 Rewind	2020	10/13/2020	6,310	570	7,379	-
A.0001550.500.001.130	HAR Unit 1	H1 Rpl TBFP Recirc PRV.	2020	10/13/2020	3,060	85	3,145	12
A.0001550.500.001.123	HAR Unit 2	H2 Rpl #1 FW/H Non-Rtn Vlv	2020	10/19/2020	13,386	(8)	13,378	51
A.0001550.500.001.121	HAR Unit 2	H2 Rpl FSH Outlt Dm Vlvs	2020	10/19/2020	10,115	(11)	10,503	-
A.0001550.500.001.122	HAR Unit 2	H2 Rpl West SD Dry Vent Vlvs	2020	10/19/2020	11,538	(12)	11,525	26
A.0001550.500.001.120	HAR Unit 3	HAR3 Rpl DA Start Up Vent Vlv	2020	10/26/2020	16,115	2,849	18,964	24
A.0001550.500.001.139	HAR Unit 3	HAR3 Ph N Back Pass Drain Vlv	2020	10/26/2020	22,244	3,949	26,193	98
A.0001550.500.001.138	HAR Unit 3	H3 Rpl Cont BD Thrtle Vlv	2020	10/26/2020	7,579	2,081	9,660	-
A.0001550.500.001.133	HAR Unit 2	H8 Rpl Big BD Thrtle Vlv	2020	10/26/2020	13,237	2,032	15,269	17
A.0001550.500.001.140	HAR Unit 1	HAR2 RPL E CTMU Pump Rott Assembly	2020	10/26/2020	26,243	1,946	28,188	28
A.0001550.500.001.141	HAR Unit 3	HAR1 Rpl CT Screens Hoist	2020	10/17/2020	7,619	-	7,619	-
A.0001550.500.001.139	HAR Unit 3	HAR3 Rpl Trgn Pmp Chk Vlv	2020	11/17/2020	8,109	(18)	8,091	-
A.0001550.500.001.138	HAR Unit 3	HAR3 Rpl Cable Tray on Stack	2020	11/30/2020	129,794	9,651	139,445	611
A.0001550.500.001.137	HAR Unit 1	HAR3C-Rpl C Mill Exhaustor Fan	2020	12/1/2020	71,440	14,239	85,679	1,370 X
A.0001550.500.001.140	HAR Unit 1	H1 Rpl AB Comp RM S/Air Dryer	2020	12/15/2020	52,325	7,989	60,314	145
A.0001550.241.001.002	HAR Unit 3	HAR3C-Rpl Rebag Partial 2020	2020	12/15/2020	145,792	44,568	190,359	1,482 X
A.0001550.500.001.094	HAR Unit 0	HAROC Inst Pivot Remote Comm	2020	12/15/2020	92,069	3,781	95,849	2,572
A.0001550.500.001.117	HAR Unit 1	HAR1C-SUBFF Mtr Rwd	2020	12/16/2020	269,301	7,349	276,650	4,394
A.0001550.500.001.087	HAR Unit 3	HAR3C Inst Dis O2 Analyzer	2020	12/21/2020	35,514	457	35,671	845
A.0001550.500.001.118	HAR Unit 0	HARO Firewall Upgrade 2020	2020	12/21/2020	27,320	-	27,320	214
A.0001550.500.001.144	HAR Unit 3	HAR3 A Coal Mill Motor Rewind	2020	12/22/2020	66,381	12,248	78,628	345 X
A.0001550.500.001.129	HAR Unit 1	H1 Cooling Tower Storm Repairs	2020	12/22/2020	277,882	43,490	321,371	2,448
A.0001550.500.001.148	HAR Unit 2	HAR2 Rpl Ash Silo Equal Vlv	2020	12/22/2020	10,130	(97)	10,033	29 X

		Total Expenditure consist of:		
Year	Unit	Total Expenditures	Capital Addition Value	Removal Value
2000	Cunningham 1	\$ 8,613	\$ 8,613	\$ -
	Cunningham 2	\$ 195,349	\$ 195,349	\$ -
	Jones 1	\$ 94,576	\$ 89,656	\$ 4,920
	Jones 2	\$ 321,330	\$ 318,261	\$ 3,069
	Maddox 1	\$ 30,350	\$ 29,666	\$ 684
	Nichols 1	\$ 61,118	\$ 56,099	\$ 5,020
	Plant X1	\$ 82,263	\$ 82,263	\$ -
	Plant X2	\$ 168,883	\$ 168,835	\$ 48
	Plant X3	\$ 363,340	\$ 324,215	\$ 39,125
	Plant X4	\$ 85,052	\$ 84,538	\$ 515
2000 Total		\$ 1,410,875	\$ 1,357,495	\$ 53,380
2001	Cunningham 1	\$ 91,236	\$ 87,231	\$ 4,005
	Cunningham 2	\$ 7,096	\$ 6,032	\$ 1,064
	Jones 1	\$ 80,690	\$ 80,690	\$ -
	Jones 2	\$ 56,790	\$ 45,787	\$ 11,003
	Maddox 1	\$ 187,260	\$ 178,171	\$ 9,088
	Nichols 1	\$ 846,461	\$ 846,461	\$ -
	Nichols 2	\$ 86,041	\$ 72,713	\$ 13,328
	Nichols 3	\$ 237,647	\$ 237,647	\$ -
	Plant X1	\$ 15,851	\$ 13,949	\$ 1,902
	Plant X2	\$ 33,691	\$ 33,116	\$ 575
	Plant X3	\$ 30,813	\$ 29,881	\$ 931
2001 Total		\$ 1,673,576	\$ 1,631,679	\$ 41,897
2002	Cunningham 1	\$ 20	\$ 20	\$ -
	Cunningham 2	\$ 717,403	\$ 627,389	\$ 90,014
	Jones 1	\$ 500,239	\$ 490,422	\$ 9,818
	Jones 2	\$ 664,701	\$ 624,545	\$ 40,156
	Maddox 1	\$ 335,278	\$ 303,586	\$ 31,692
	Nichols 1	\$ 39,616	\$ 37,082	\$ 2,534
	Nichols 2	\$ 81,114	\$ 76,095	\$ 5,020
	Nichols 3	\$ 750,882	\$ 748,831	\$ 2,051
	Plant X1	\$ 57,168	\$ 54,156	\$ 3,012
	Plant X2	\$ 82,121	\$ 80,615	\$ 1,506
	Plant X3	\$ 73,387	\$ 71,881	\$ 1,506
	Plant X4	\$ 276,866	\$ 157,267	\$ 119,599
2002 Total		\$ 3,578,794	\$ 3,271,887	\$ 306,906

Year	Unit	Total Expenditures	Total Expenditure consist of:	
			Capital Addition Value	Removal Value
2003	Cunningham 1	\$ 70,737	\$ 69,849	\$ 889
	Cunningham 2	\$ 555,365	\$ 435,882	\$ 119,483
	Jones 1	\$ 488,715	\$ 466,335	\$ 22,380
	Maddox 1	\$ 66,090	\$ 55,392	\$ 10,698
	Nichols 1	\$ 10,641	\$ 10,641	\$ -
	Nichols 2	\$ 168,173	\$ 167,170	\$ 1,004
	Nichols 3	\$ 1,462,875	\$ 1,295,479	\$ 167,396
	Plant X2	\$ -	\$ -	\$ -
	Plant X4	\$ 1,615	\$ 1,615	\$ -
2003 Total		\$ 2,824,213	\$ 2,502,362	\$ 321,850
2004	Cunningham 1	\$ 294,956	\$ 291,608	\$ 3,349
	Maddox 1	\$ 193,516	\$ 184,476	\$ 9,040
	Nichols 1	\$ 371,404	\$ 283,395	\$ 88,009
	Plant X3	\$ 125,604	\$ 123,619	\$ 1,985
	Plant X4	\$ 72,260	\$ 65,232	\$ 7,027
2004 Total		\$ 1,057,741	\$ 948,330	\$ 109,411
2005	Cunningham 1	\$ 36,633	\$ 36,279	\$ 354
	Cunningham 2	\$ 1,521,839	\$ 1,235,889	\$ 285,949
	Jones 1	\$ 1,357,843	\$ 1,177,033	\$ 180,810
	Jones 2	\$ 2,609,971	\$ 2,203,142	\$ 406,829
	Maddox 1	\$ 1,993,671	\$ 1,862,119	\$ 131,552
	Nichols 1	\$ 3,882,636	\$ 3,874,532	\$ 8,104
	Nichols 2	\$ 5,937,176	\$ 5,810,872	\$ 126,304
	Nichols 3	\$ 965,285	\$ 888,273	\$ 77,012
	Plant X1	\$ 247,827	\$ 215,040	\$ 32,787
	Plant X2	\$ 1,009,868	\$ 837,342	\$ 172,526
	Plant X3	\$ 553,575	\$ 501,540	\$ 52,035
	Plant X4	\$ 7,397,284	\$ 6,477,556	\$ 919,728
2005 Total		\$ 27,513,608	\$ 25,119,617	\$ 2,393,991
2006	Cunningham 1	\$ 257,117	\$ 249,136	\$ 7,981
	Cunningham 2	\$ 525,915	\$ 455,344	\$ 70,571
	Jones 1	\$ 171,161	\$ 148,958	\$ 22,203
	Maddox 1	\$ 655,640	\$ 542,268	\$ 113,372
	Nichols 1	\$ 171,040	\$ 155,579	\$ 15,461
	Nichols 2	\$ 0	\$ -	\$ 0
	Nichols 3	\$ 83,300	\$ 82,897	\$ 403
	Plant X4	\$ 169,694	\$ 166,619	\$ 3,075
2006 Total		\$ 2,033,866	\$ 1,800,801	\$ 233,066

Year	Unit	Total Expenditures	Total Expenditure consist of:		
			Capital Addition Value	Removal Value	
2007	Cunningham 1	\$ 498,270	\$ 464,866	\$ 33,404	
	Cunningham 2	\$ 1,618,123	\$ 1,609,484	\$ 8,639	
	Jones 1	\$ 769,982	\$ 738,047	\$ 31,935	
	Jones 2	\$ 131,723	\$ 130,050	\$ 1,673	
	Maddox 1	\$ 1,245,487	\$ 1,211,121	\$ 34,366	
	Nichols 1	\$ 1,522,534	\$ 1,458,318	\$ 64,217	
	Nichols 2	\$ 660,364	\$ 614,067	\$ 46,297	
	Nichols 3	\$ 84,147	\$ 82,612	\$ 1,535	
	Plant X1	\$ 55,359	\$ 52,544	\$ 2,815	
	Plant X2	\$ 180,240	\$ 168,444	\$ 11,796	
	Plant X3	\$ 81,494	\$ 79,596	\$ 1,898	
	Plant X4	\$ 3,131,569	\$ 3,095,302	\$ 36,266	
2007 Total		\$ 9,979,292	\$ 9,704,453	\$ 274,840	
2008	Cunningham 1	\$ 430,522	\$ 400,740	\$ 29,782	
	Cunningham 2	\$ 5,428,474	\$ 4,856,244	\$ 572,230	
	Jones 1	\$ 120,413	\$ 118,496	\$ 1,918	
	Jones 2	\$ 839,396	\$ 799,454	\$ 39,942	
	Maddox 1	\$ 5,178,009	\$ 5,063,669	\$ 114,340	
	Nichols 1	\$ 814,143	\$ 710,403	\$ 103,740	
	Nichols 2	\$ 578,408	\$ 514,049	\$ 64,359	
	Nichols 3	\$ 123,313	\$ 121,582	\$ 1,731	
	Plant X1	\$ 400,277	\$ 389,698	\$ 10,579	
	Plant X2	\$ 64,866	\$ 62,231	\$ 2,636	
	Plant X3	\$ 2,334,288	\$ 2,102,137	\$ 232,151	
	Plant X4	\$ 252,384	\$ 242,929	\$ 9,454	
2008 Total		\$ 16,564,493	\$ 15,381,632	\$ 1,182,861	
2009	Cunningham 2	\$ 39,524	\$ 33,653	\$ 5,871	
	Jones 1	\$ 414,614	\$ 400,334	\$ 14,280	
	Jones 2	\$ 121,541	\$ 116,679	\$ 4,862	
	Maddox 1	\$ 2,752,117	\$ 2,293,153	\$ 458,964	
	Nichols 1	\$ 283,303	\$ 163,605	\$ 119,698	
	Nichols 2	\$ 627,756	\$ 593,355	\$ 34,400	
	Nichols 3	\$ 5,373,642	\$ 5,020,148	\$ 353,494	
	Plant X2	\$ 243,248	\$ 218,554	\$ 24,694	
	Plant X3	\$ 1,414,657	\$ 1,143,269	\$ 271,388	
	Plant X4	\$ 242,797	\$ 201,803	\$ 40,994	
2009 Total		\$ 11,513,197	\$ 10,184,553	\$ 1,328,644	

Year	Unit	Total Expenditures	Total Expenditure consist of:	
			Capital Addition Value	Removal Value
2010	Cunningham 1	\$ 5,406,192	\$ 5,271,792	\$ 134,400
	Cunningham 2	\$ 6,284,920	\$ 5,436,859	\$ 848,062
	Jones 1	\$ 1,332,828	\$ 1,283,168	\$ 49,661
	Jones 2	\$ 85,525	\$ 81,768	\$ 3,756
	Maddox 1	\$ 3,723,355	\$ 3,713,963	\$ 9,392
	Nichols 1	\$ 1,511,791	\$ 1,275,395	\$ 236,396
	Nichols 2	\$ 405,358	\$ 377,754	\$ 27,605
	Nichols 3	\$ 1,425,803	\$ 1,261,789	\$ 164,014
	Plant X1	\$ 247,763	\$ 201,609	\$ 46,154
	Plant X2	\$ 348,082	\$ 315,476	\$ 32,606
	Plant X3	\$ 25,299	\$ 25,299	\$ -
	Plant X4	\$ 2,950,139	\$ 2,634,200	\$ 315,939
2010 Total		\$ 23,747,055	\$ 21,879,070	\$ 1,867,985
2011	Cunningham 1	\$ 215,495	\$ 207,626	\$ 7,869
	Cunningham 2	\$ 232,448	\$ 225,115	\$ 7,332
	Jones 2	\$ 85,421	\$ 85,421	\$ -
	Maddox 1	\$ 115,856	\$ 113,121	\$ 2,735
	Nichols 1	\$ 145,239	\$ 134,133	\$ 11,106
	Nichols 3	\$ 35,355	\$ 35,355	\$ -
	Plant X1	\$ 170,066	\$ 139,883	\$ 30,183
2011 Total		\$ 999,880	\$ 940,654	\$ 59,226
2012	Cunningham 1	\$ 260,928	\$ 250,212	\$ 10,716
	Cunningham 2	\$ 2,412,527	\$ 2,099,508	\$ 313,019
	Jones 1	\$ 423,918	\$ 401,645	\$ 22,273
	Jones 2	\$ 3,102,338	\$ 2,880,312	\$ 222,026
	Maddox 1	\$ 67,456	\$ 65,420	\$ 2,037
	Nichols 1	\$ 32,481	\$ 30,973	\$ 1,508
	Nichols 2	\$ 143,194	\$ 134,561	\$ 8,633
	Nichols 3	\$ 111,062	\$ 104,660	\$ 6,402
	Plant X1	\$ 173,180	\$ 173,180	\$ -
	Plant X2	\$ 3,246,415	\$ 2,444,216	\$ 802,199
	Plant X3	\$ 80,527	\$ 80,527	\$ -
2012 Total		\$ 10,054,026	\$ 8,665,213	\$ 1,388,813

Year	Unit	Total Expenditures	Total Expenditure consist of:		
			Capital Addition Value	Removal Value	
2013	Cunningham 1	\$ 142,442	\$ 138,147	\$ 4,295	
	Cunningham 2	\$ 903,847	\$ 850,876	\$ 52,972	
	Jones 1	\$ 4,221,937	\$ 4,135,106	\$ 86,831	
	Jones 2	\$ 2,510,426	\$ 2,325,886	\$ 184,540	
	Maddox 1	\$ 5,591,842	\$ 5,196,080	\$ 395,762	
	Nichols 1	\$ 1,516,321	\$ 1,298,437	\$ 217,884	
	Nichols 2	\$ 2,156,201	\$ 1,717,072	\$ 439,129	
	Nichols 3	\$ 1,895,453	\$ 1,814,328	\$ 81,125	
	Plant X2	\$ 139,107	\$ 139,107	\$ -	
	Plant X3	\$ 785,790	\$ 629,282	\$ 156,508	
	Plant X4	\$ 1,092,162	\$ 959,422	\$ 132,740	
2013 Total		\$ 20,955,529	\$ 19,203,743	\$ 1,751,786	
2014	Cunningham 1	\$ 361,054	\$ 321,078	\$ 39,975	
	Cunningham 2	\$ 66,576	\$ 65,359	\$ 1,217	
	Jones 1	\$ 4,904,270	\$ 4,377,921	\$ 526,349	
	Jones 2	\$ 219,014	\$ 217,667	\$ 1,347	
	Maddox 1	\$ 1,844,544	\$ 1,551,009	\$ 293,535	
	Nichols 1	\$ 157,985	\$ 145,093	\$ 12,892	
	Nichols 2	\$ 19,976	\$ 18,596	\$ 1,380	
	Nichols 3	\$ 1,035,767	\$ 1,008,795	\$ 26,972	
	Plant X1	\$ 80,351	\$ 69,926	\$ 10,426	
	Plant X2	\$ 25,435	\$ 21,164	\$ 4,272	
	Plant X4	\$ 102,102	\$ 94,279	\$ 7,823	
2014 Total		\$ 8,817,074	\$ 7,890,886	\$ 926,188	
2015	Cunningham 1	\$ 63,133	\$ 61,572	\$ 1,561	
	Cunningham 2	\$ 1,584,947	\$ 1,353,591	\$ 231,356	
	Jones 1	\$ 772,624	\$ 721,617	\$ 51,007	
	Jones 2	\$ 3,619,952	\$ 3,393,526	\$ 226,426	
	Maddox 1	\$ 1,071,269	\$ 956,563	\$ 114,706	
	Nichols 1	\$ 58,893	\$ 53,966	\$ 4,927	
	Nichols 2	\$ 2,130,101	\$ 2,003,012	\$ 127,089	
	Nichols 3	\$ 1,318,696	\$ 1,130,447	\$ 188,250	
	Plant X1	\$ 476,449	\$ 399,414	\$ 77,035	
	Plant X2	\$ 41,745	\$ 41,349	\$ 396	
	Plant X3	\$ 30,475	\$ 30,277	\$ 198	
	Plant X4	\$ 879,295	\$ 798,224	\$ 81,071	
2015 Total		\$ 12,047,580	\$ 10,943,558	\$ 1,104,023	

Year	Unit	Total Expenditures	Total Expenditure consist of:		
			Capital Addition Value	Removal Value	
2016	Cunningham 1	\$ 42,212	\$ 30,465	\$ 11,747	
	Cunningham 2	\$ 52,847	\$ 51,861	\$ 986	
	Jones 1	\$ 884,383	\$ 817,039	\$ 67,344	
	Jones 2	\$ 449,774	\$ 428,529	\$ 21,245	
	Maddox 1	\$ 234,281	\$ 217,238	\$ 17,043	
	Nichols 1	\$ 86,505	\$ 79,487	\$ 7,018	
	Nichols 2	\$ 604,842	\$ 591,917	\$ 12,925	
	Nichols 3	\$ 1,691,691	\$ 1,308,013	\$ 383,679	
	Plant X1	\$ 118,771	\$ 113,770	\$ 5,001	
	Plant X2	\$ 232,271	\$ 223,302	\$ 8,969	
	Plant X3	\$ 104,921	\$ 91,195	\$ 13,726	
	Plant X4	\$ 295,698	\$ 278,916	\$ 16,782	
2016 Total		\$ 4,798,197	\$ 4,231,732	\$ 566,465	
2017	Cunningham 1	\$ 182,082	\$ 172,398	\$ 9,684	
	Jones 1	\$ 6,497,114	\$ 5,769,782	\$ 727,331	
	Jones 2	\$ 5,467,508	\$ 4,854,324	\$ 613,184	
	Maddox 1	\$ 2,070,967	\$ 1,808,655	\$ 262,313	
	Nichols 1	\$ 93,604	\$ 90,912	\$ 2,692	
	Nichols 2	\$ 540,462	\$ 502,427	\$ 38,035	
	Nichols 3	\$ 184,330	\$ 178,757	\$ 5,573	
	Plant X2	\$ 30,990	\$ 29,689	\$ 1,301	
	Plant X4	\$ 387,607	\$ 369,830	\$ 17,777	
2017 Total		\$ 15,454,664	\$ 13,776,775	\$ 1,677,888	
2018	Cunningham 1	\$ 13,934	\$ 13,664	\$ 270	
	Cunningham 2	\$ 1,013,342	\$ 958,986	\$ 54,356	
	Jones 1	\$ 6,878,594	\$ 5,721,208	\$ 1,157,387	
	Jones 2	\$ 315,492	\$ 291,566	\$ 23,926	
	Maddox 1	\$ 579,989	\$ 457,625	\$ 122,364	
	Nichols 1	\$ 270,442	\$ 245,960	\$ 24,482	
	Nichols 2	\$ 590,035	\$ 533,958	\$ 56,077	
	Nichols 3	\$ 172,869	\$ 160,007	\$ 12,861	
	Plant X1	\$ 26,240	\$ 22,547	\$ 3,693	
	Plant X2	\$ 130,077	\$ 120,457	\$ 9,620	
	Plant X3	\$ 47,958	\$ 46,295	\$ 1,662	
	Plant X4	\$ 1,359,397	\$ 1,217,103	\$ 142,294	
2018 Total		\$ 11,398,369	\$ 9,789,378	\$ 1,608,991	

Year	Unit	Total Expenditures	Total Expenditure consist of:	
			Capital Addition Value	Removal Value
2019	Cunningham 2	\$ 1,574,271	\$ 1,203,213	\$ 371,058
	Jones 1	\$ 1,220,781	\$ 1,109,716	\$ 111,066
	Jones 2	\$ 7,156,855	\$ 6,358,753	\$ 798,102
	Maddox 1	\$ 89,552	\$ 83,779	\$ 5,772
	Nichols 1	\$ 493,220	\$ 444,679	\$ 48,541
	Nichols 2	\$ 822,820	\$ 713,310	\$ 109,510
	Nichols 3	\$ 6,141,535	\$ 5,517,706	\$ 623,829
	Plant X1	\$ -	\$ (47)	\$ 47
	Plant X2	\$ 11,096	\$ 8,442	\$ 2,654
	Plant X4	\$ 4,333,909	\$ 3,020,707	\$ 1,313,202
2019 Total		\$ 21,844,038	\$ 18,460,258	\$ 3,383,780
2020	Cunningham 1	\$ 2,385	\$ -	\$ 2,385
	Cunningham 2	\$ 6,231,402	\$ 5,341,073	\$ 890,329
	Jones 1	\$ 645,954	\$ 554,301	\$ 91,653
	Jones 2	\$ 894,665	\$ 840,253	\$ 54,412
	Maddox 1	\$ 6,107,782	\$ 5,415,834	\$ 691,947
	Nichols 1	\$ 922,877	\$ 760,196	\$ 162,681
	Nichols 2	\$ 452,186	\$ 388,374	\$ 63,812
	Nichols 3	\$ 1,592,913	\$ 1,384,429	\$ 208,484
	Plant X1	\$ 540,441	\$ 506,443	\$ 33,998
	Plant X2	\$ 10,451	\$ 10,031	\$ 420
	Plant X3	\$ 134,218	\$ 129,994	\$ 4,224
	Plant X4	\$ 3,987,478	\$ 4,081,971	\$ (94,493)
2020 Total		\$ 21,522,753	\$ 19,412,900	\$ 2,109,853
Grand Total		\$ 229,788,820	\$ 207,096,976	\$ 22,691,844



Today's Meeting Agenda

- 1. Modeling parameters for Harrington Station**
 - A. Background & NAAQS compliance
 - B. Harrington operating on gas
 - C. Economic Analysis

Agenda for Future Technical Conferences

1. Tolk Analysis – Retirement dates and operating scenarios
2. Value of Tolk water rights
3. Modeling Parameters



BACKGROUND & NAAQS COMPLIANCE

Background

- NM Rate Case Stipulation states “SPS also commits to running at least one scenario in which all of SPS’s coal-burning units are retired or replaced before 2030”
- Harrington Station:
 - Three coal-fired units: each ~340MW
 - Located North of Amarillo, Texas
 - Units 1 – 3 are scheduled to retire 2036, 2038 & 2040, respectively
- SPS intend to run every scenario in the Tolk Analysis in which all three Harrington units are converted to operate on natural gas by 2025

NAAQS

- The Clean Air Act requires the EPA to set National Ambient Air Quality Standards (including SO₂)
- The TCEQ classified the area as Attainment/Unclassifiable due to a lack of monitoring data in the area
- In December 2016, TCEQ installed an SO₂ monitor in the vicinity of Harrington Station to collect ambient air data
- Readings from the monitor exceed the standards
- Harrington emits ~99% of the SO₂ emissions in Potter County
- Emphasis will be on SPS to produce implementation plan
- Anticipated compliance date: By 2025
- Agreed Order October 2020

Compliance Solutions

- Installation of environmental controls on three units*
- Early retirement of all three units (EOY 2024)
- Conversion of all three units to natural gas
- Combination of the above

**Installation of environmental controls is cost prohibitive. Based on feedback from previous technical conferences environmental controls will not be presented today*

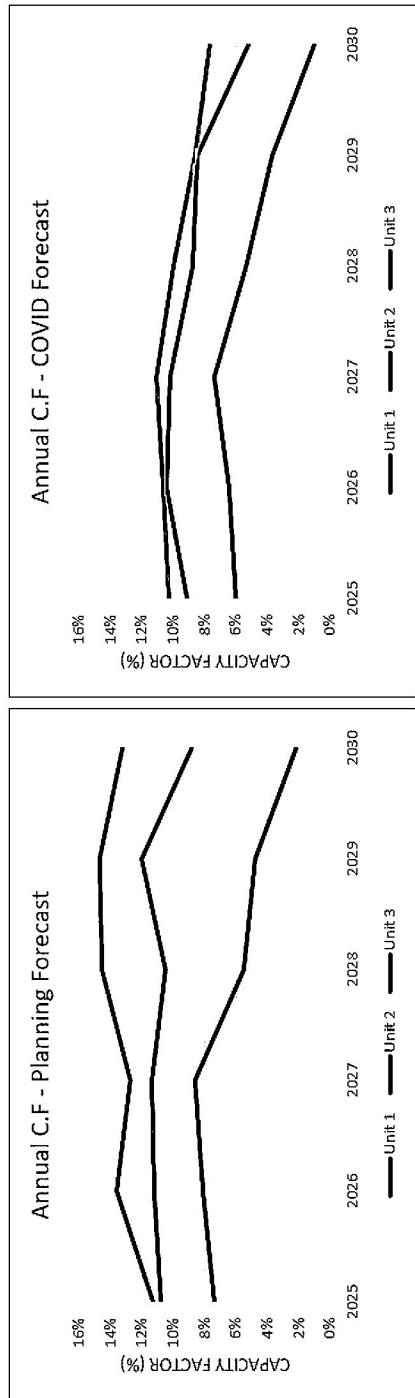


HARRINGTON OPERATING ON GAS

Harrington on Gas

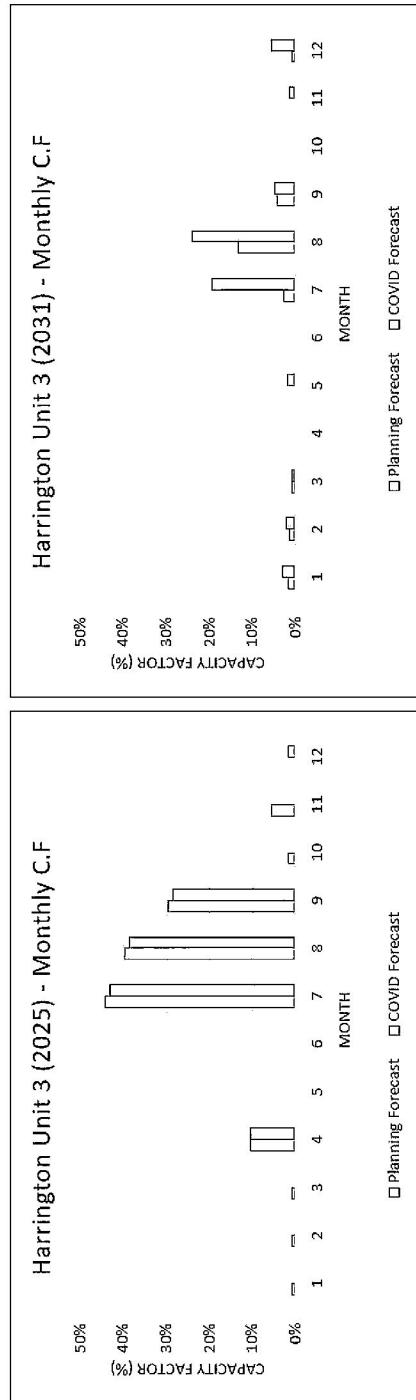
- Fuel change only
- Low cost solution to:
 - Meet NAAQs compliance
 - Continue to provide over 1,000MW of year-round capacity
- System reliability benefits
- After the conversion to gas, the Harrington units act as “peaking” generation
 - Low capacity factors
 - Provide energy during times of high demand or low renewable output

Low Annual Capacity Factors



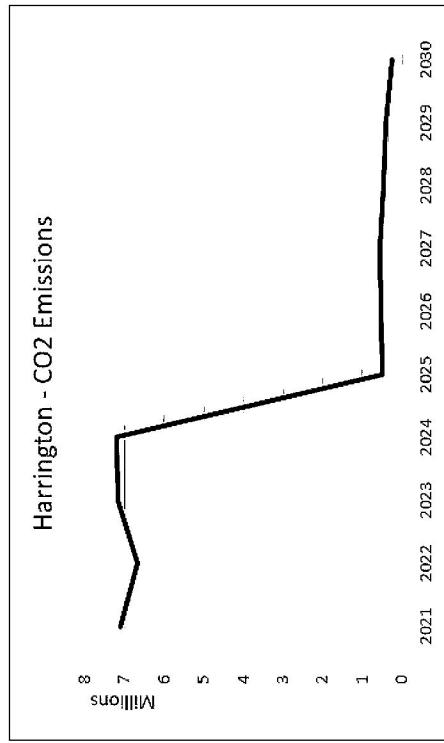
- The Harrington Units will provide “peaking generation” with projected capacity factors <10 - 15% depending on load forecast

Capacity Factors by Month



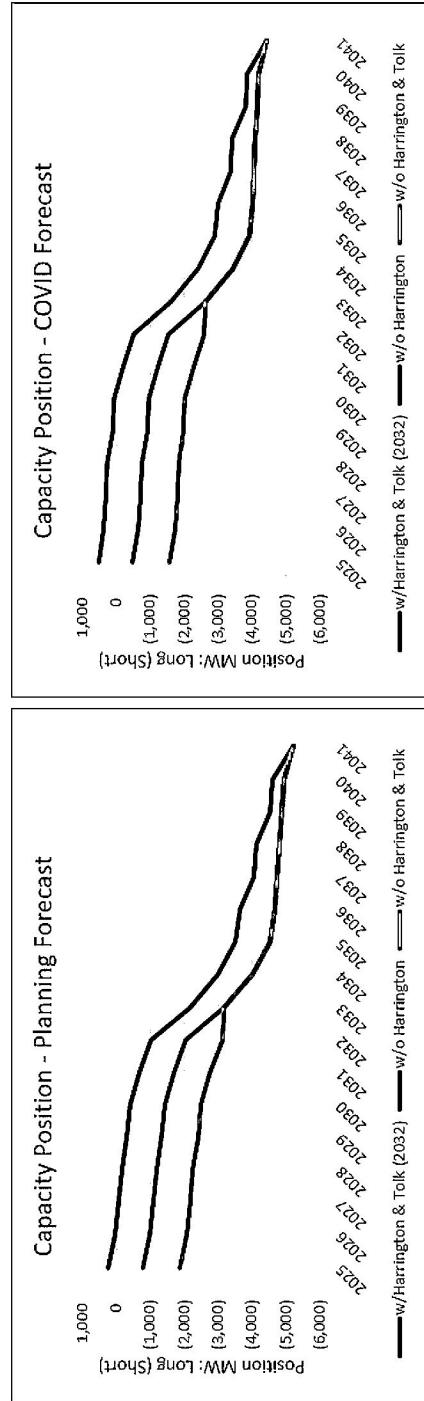
- In the near term, Harrington will provide generation during the peak Summer months
- Harrington will support the integration of new renewables by providing energy during hours of low renewable generation

Harrington Annual CO₂ Emissions



- Converting Harrington to gas lowers CO₂ emissions by ~95% over a 10-year period
- Reduction is the result of lower CO₂ intensity and a low capacity factor

Summer Capacity Position



- Including Tolk & Harrington, SPS has sufficient capacity until between 2027 & 2031 depending on load forecast
- Retiring Harrington EOY 2024 will create an immediate capacity need of between ~500MW and 800MW, rising to between ~1,000MW and 1,400MW by 2030
- Retiring both Tolk and Harrington EOY 2024 will create an immediate capacity need of between ~1,600MW and 1,900MW rising to between ~2,000MW and 2,400MW by 2030

Retiring Gas Generation

- SPS's entire fleet of gas steam generation (1,624MW) is scheduled to retire by EOY 2034
 - 1,138MW is scheduled to retire by EOY 2030
 - Harrington Station provides 1,021MW of capacity
 - Tolk Station provides 1,069MW of capacity
 - Potentially 3,228MW of thermal generation could be retired by 2030
 - SPS owns 4,335MW of thermal generation
 - Retiring this amount of thermal generation will require new thermal generation



Economic Analysis

DRAFT

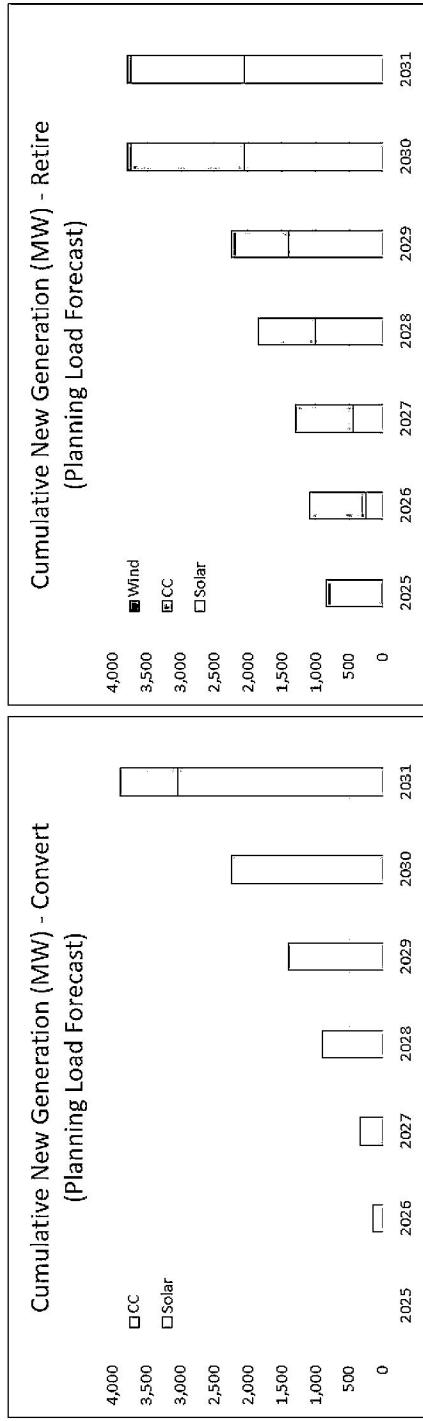
Economic Analysis

Planning Forecast		COVID Forecast		
PVRR Production Cost	Delta (\$M)	NPV (\$M) 2021- 2049	PVRR Production Cost	Delta (\$M)
Convert Units to Gas	\$0	\$16,045	Convert Units to Gas	\$0
Early Retirement (2024)	\$116	\$16,161	Early Retirement (2024)	\$76

- Converting the units to gas saves between \$76M - \$116M (PVRR) when compared to an early retirement
- The Encompass model:
 - Added more new renewable generation by 2031 when converting the units to gas
 - Added an additional combined cycle unit when retiring Harrington EOY2024

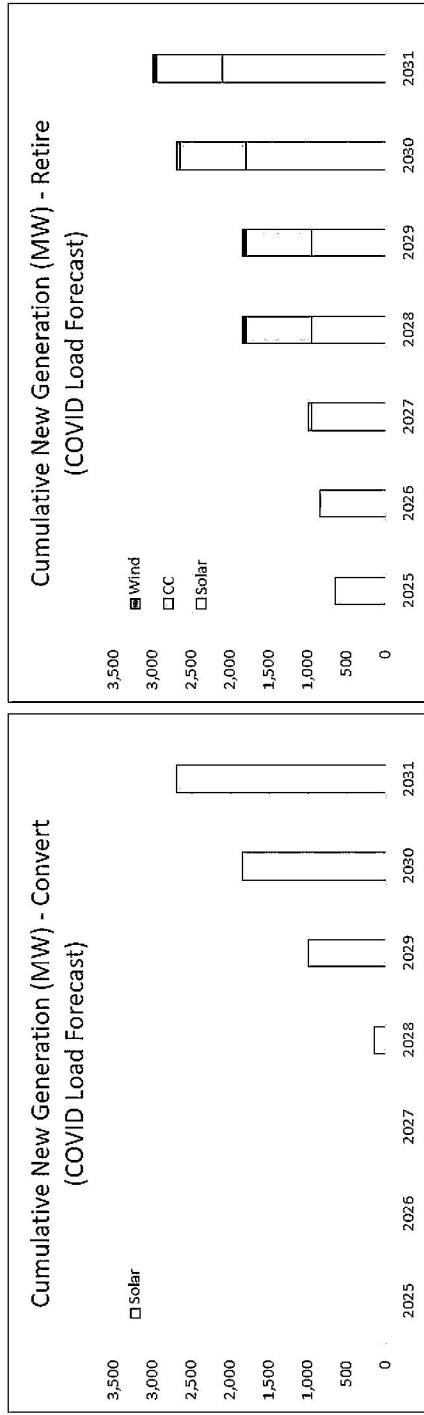
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Expansion Plans – Planning Forecast



- When converting to gas (left graph), the Encompass model added 3,050MW of new solar and a combined cycle by EOY 2031
- When retiring the Harrington Units (right graph), the Encompass model added 2,050MW of solar, 50MW of wind and two combined cycles by EOY 2031

DRAFT Expansion Plans – COVID Forecast



- When converting to gas (left graph), the Encompass model added 2,700MW of solar by EOY 2031
- When retiring the Harrington Units (right graph), the Encompass model added 2,100MW of solar, 50MW of wind and a combined cycle by EOY 2031

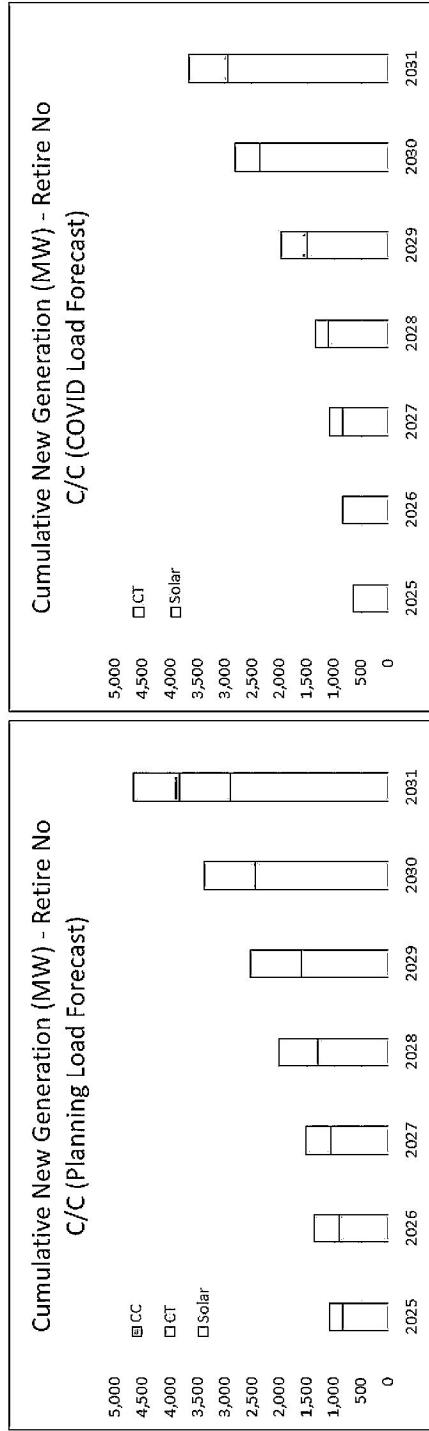
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Economic Analysis (w/o CC)

Planning Forecast		COVID Forecast		
PVRR Production Cost	Delta (\$M)	NPV (\$M) 2021-2049	PVRR Production Cost	Delta (\$M)
Convert Units to Gas	\$0	\$16,045	Convert Units to Gas	\$0
Early Retirement (2024)	\$116	\$16,161	Early Retirement (2024)	\$76
Early Retirement (2024) - No CC	\$364	\$16,409	Early Retirement (2024) - No CC	\$206

- The economic analysis was recalculated restricting encompass from adding a combined cycle before EOY 2030
- Converting the units to gas saves between \$206M - \$364M (PVRR) when compared to an early retirement

DRAFT Expansion Plan w/o CC before 2030 DRAFT



- Depending on the load forecast, when retiring Harrington and restricting the model from adding a CC before EOY 2030, it added between:
 - 2,900MW of solar, 4 CTs and 1 combined cycle, and
 - 2,950MW of solar and 3 CTs

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Economic Analysis (w/o CC/CT)

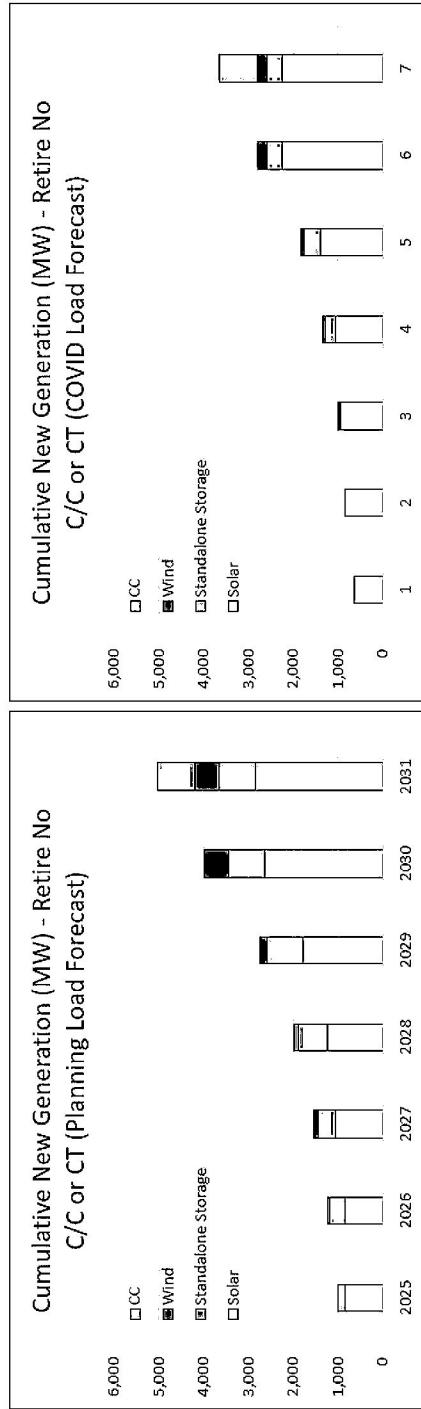
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Planning Forecast		CC/ID Forecast	
PVRR Production Cost	Delta (\$M)	NPV (\$M) 2021-2049	NPV (\$M) 2021-2049
Convert Units to Gas	\$0	\$16,045	\$0
Early Retirement (2024)	\$116	\$16,161	\$76
Early Retirement (2024) - No CC	\$364	\$16,409	\$206
Early Retirement (2024) - No CT/CC	\$1,345	\$17,390	\$397

Planning Forecast		CC/ID Forecast	
PVRR Production Cost	Delta (\$M)	NPV (\$M) 2021-2049	NPV (\$M) 2021-2049
Convert Units to Gas	\$0	\$16,045	\$0
Early Retirement (2024)	\$116	\$16,161	\$76
Early Retirement (2024) - No CC	\$364	\$16,409	\$206
Early Retirement (2024) - No CT/CC	\$1,345	\$17,390	\$397

- The economic analysis was once again re-run restricting encompass from selecting a combined cycle or combustion turbines before EOY 2030
- Converting the units to gas saves between \$397M - \$1,345M (PVRR) when compared to an early retirement

DRAFT Expansion Plan w/o CC/CT before 2030



- Depending on the load forecast, when retiring Harrington and restricting the model from adding a CC or CTs before EOY 2030, it added between:
 - 800MW of storage, 550MW of wind, 2,850MW of solar, and a CC in 2031
 - 350MW of storage, 200MW of wind, 2,250MW of solar, and a CC in 2031

Summary

- Converting the Harrington Units to operate on natural gas:
 - Is a low cost and low risk solution for NAAQs compliance
 - Is the lowest cost alternative compared to other compliance strategies
 - Provides year-round capacity and generation, benefitting the integration of additional renewables onto the SPS system
 - Carbon Emissions at Harrington Station are reduced by ~95% over a 10-year period

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