



Filing Receipt

Received - 2022-01-12 04:10:40 PM

Control Number - 52485

ItemNumber - 96

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

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

**SOUTHWESTERN PUBLIC SERVICE COMPANY'S
RESPONSE TO SIERRA CLUB'S
THIRD REQUEST FOR INFORMATION
QUESTION NOS. 3-1 THROUGH 3-27**
(*Filename: SPSRespSC3rd.doc; Total Pages: 272*)

I. WRITTEN RESPONSES	3
II. INSPECTIONS	4
RESPONSES	6
QUESTION NO. SIERRA CLUB 3-1:.....	6
QUESTION NO. SIERRA CLUB 3-2:.....	7
QUESTION NO. SIERRA CLUB 3-3:.....	8
QUESTION NO. SIERRA CLUB 3-4	9
QUESTION NO. SIERRA CLUB 3-5:.....	10
QUESTION NO. SIERRA CLUB 3-6:.....	11
QUESTION NO. SIERRA CLUB 3-7:.....	13
QUESTION NO. SIERRA CLUB 3-8:.....	14
QUESTION NO. SIERRA CLUB 3-9:.....	15
QUESTION NO. SIERRA CLUB 3-10:.....	16
QUESTION NO. SIERRA CLUB 3-11:.....	17
QUESTION NO. SIERRA CLUB 3-12:.....	18
QUESTION NO. SIERRA CLUB 3-13:.....	19
QUESTION NO. SIERRA CLUB 3-14:.....	20
QUESTION NO. SIERRA CLUB 3-15:.....	21
QUESTION NO. SIERRA CLUB 3-16:.....	24
QUESTION NO. SIERRA CLUB 3-17:.....	25
QUESTION NO. SIERRA CLUB 3-18:.....	26
QUESTION NO. SIERRA CLUB 3-19:.....	27
QUESTION NO. SIERRA CLUB 3-20:.....	28
QUESTION NO. SIERRA CLUB 3-21:.....	29

QUESTION NO. SIERRA CLUB 3-22:	31
QUESTION NO. SIERRA CLUB 3-23:	32
QUESTION NO. SIERRA CLUB 3-24:	33
QUESTION NO. SIERRA CLUB 3-25:	34
QUESTION NO. SIERRA CLUB 3-26:	35
QUESTION NO. SIERRA CLUB 3-27:	36
CERTIFICATE OF SERVICE	37

EXHIBITS ATTACHED:

Exhibit SPS-SC 3-10 (<i>non-native format</i>)	38
Exhibit SPS-SC 3-15(c) (<i>non-native format</i>).....	73
SPS-Sierra Club 3-15(d) (<i>non-native format</i>)	77

**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
THIRD REQUEST FOR INFORMATION
QUESTION NOS. 3-1 THROUGH 3-27**

Southwestern Public Service Company (“SPS”) files this response to the Sierra Club’s Third Request for Information, Question Nos. 3-1 through 3-27. SPS has provided notice, by email, to all parties that SPS’s Responses to Sierra Club’s Third 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 Third 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,



XCEL ENERGY SERVICES INC.
Mark Walker
State Bar No. 20717318
919 Congress Ave., Suite 900
Austin, Texas 78701
(512) 236-6926
(512) 236-6935 (Fax)
mark.a.walker@xcelenergy.com

COFFIN RENNER LLP
Mark A. Santos
State Bar No. 24037433
Kate Norman
State Bar No. 24051121
C. Glenn Adkins
State Bar No. 24103097
1011 West 31st Street
Austin, Texas 78705
(512) 879-0900
(512) 879-0912 (Fax)
mark.santos@crtxlaw.com
kate.norman@crtxlaw.com
glenn.adkins@crtxlaw.com

ATTORNEYS FOR
SOUTHWESTERN PUBLIC SERVICE COMPANY

RESPONSES

QUESTION NO. Sierra Club 3-1:

State whether SPS evaluated the early retirement of Harrington, assuming that any remaining plant balance was depreciated over each unit's current lifetime.

- a. If yes, provide all such analysis.
- b. If no, explain why no such analysis has been completed.

RESPONSE:

No.

- a. Not applicable.
- b. No, no such analysis was completed. First, such an analysis would not resolve the challenges SPS face if the Harrington Units are retired by the end of 2024. Second, such an analysis would require SPS customers to continue to incur depreciation expense for the Harrington Units up to 16 years after they are used and useful. Please refer to pages 8-9 of the Direct Testimony of Ben R. Elsey for additional information.

Preparer: Ben R. Elsey

Sponsors: Ben R. Elsey, William A. Grant

QUESTION NO. Sierra Club 3-2:

State whether SPS has evaluated the possibility of converting the undepreciated plant balance at Harrington into a regulatory asset and depreciating the balance over the current plant life if any of the units, or the entire plant, retires early.

- a. If yes, provide all analysis and reports evaluating this option.
- b. If no, explain why not

RESPONSE:

No.

- a. Not applicable.
- b. Please refer to SPS's response to Question No. SC 3-1.

Preparer: Ben R. Elsey

Sponsors: Ben R. Elsey, William A. Grant

QUESTION NO. Sierra Club 3-3:

State whether SPS has evaluated the possibility of securitizing the undepreciated plant balance at Harrington if any of the units, or the entire plant, retires early.

- a. If yes, provide all analysis and reports evaluating this option.
- b. If no, explain why not

RESPONSE:

No.

- a. Not applicable.
- b. Please refer to SPS's Response to Question No. SC 1-11.

Preparer: Counsel
Sponsor: William A. Grant

QUESTION NO. Sierra Club 3-4

State whether SPS tested a CO₂ price as part of the Harrington analysis.

- a. If yes, provide all analysis.
- b. If no, explain why not.

RESPONSE:

No.

- a. Not applicable.
- b. SPS did not evaluate a speculative carbon pricing as part of the Harrington analysis as no such policy or regulation exists today or has even been proposed in an actionable forum.

Preparers: Ben R. Elsey, Jeffrey L. West

Sponsors: Ben R. Elsey, Jeffrey L. West

QUESTION NO. Sierra Club 3-5:

Explain the basis of SPS's assumptions around the incremental decrease in Sustaining Capex and FOM costs as the Company retired one unit, two units, and three units in the different scenarios.

RESPONSE:

Please refer to SPS's Response to Question No. SC 2-3(a) and (b). Please refer to SPS's Response to Question No. SC 3-6 for additional information regarding FOM cost assumptions for 2022 – 2024 if all three Harrington Units are retired.

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

QUESTION NO. Sierra Club 3-6:

Refer to the EnCompass files provided for the Harrington 2021 analysis.

- a. Explain what costs are represented in the Annual Capital Expenditures (\$000) timeseries.
- b. Explain what costs are represented in the Capital Expenditures (\$000) field.
- c. Explain why Scenario 5 (where units 1 and 2 retire early) uses the same FOM cost stream for Units 1 and 2 as Scenario 2 (where both units convert to gas), instead of the same cost stream as Scenario 1 (where all units retire early).
- d. Explain why Scenario 6 (where unit 1 retires early) uses the same FOM cost stream for unit 1 as Scenario 2 (where unit 1 converts to gas) instead of the same cost stream as Scenario 1 (where the unit retires early).

RESPONSE:

- a. SPS confirmed with Sierra Club this question is regarding the ‘TimeSeriesDatedChanges’ tab in the file ‘SPS_ReferenceCase_1H21_2021-06-21.xlsx’.

The annual capital expenditures (\$,000) timeseries represents on-going capital expenditure forecasts for each unit. For example, the ‘Early Retire 2024 Annual CapEx’ time series includes on-going capital expenditure projections for Harrington units 0 – 3 assuming all three Harrington units retire end of year 2024. The ‘Gas 20xx Annual CapX’ times series includes on-going capital expenditure projections for Harrington units 0 – 3 assuming all three units are converted to operate on natural gas and retire at the end of their currently scheduled service lives’.

*Note: In the second example above, the naming structure for the times series is specific to the unit’s retirement date. For example, the time series for Unit 1 is called “Gas 2036 Annual CapEx”, the time series for Unit 2 is called “Gas 2038 Annual CapEx” etc.

- b. SPS confirmed with Sierra Club this question is regarding the ‘Project’ tab in the file ‘SPS_ReferenceCase_1H21_2021-06-21.xlsx’.

The column ‘CapEx’ generally represents the existing net book value plus decommissioning costs for each unit. In the case of the Harrington Units there are multiple entries depending on the fuel source and retirement date of the Harrington Units and additional entries for the SDA and DSI environmental control options. For example, the entry ‘Harrington 1 - Coal 2036 CapEx’ represents continued coal operation and depreciating the net book value through 2036. The entries ‘Harrington 1 - Coal 2024 CapEx’ and ‘Harrington 1 - Gas 2036 CapEx’ represent (1) converting the units to operate on natural gas, (2) depreciating the coal assets through 2024, and

- (3) depreciating the remaining assets through 2036.
- c. As demonstrated in Exhibit SPS-SC 1-4(e)(i), for the years 2022 – 2024, SPS had originally intended to utilize a slightly lower fixed O&M forecast when comparing the cessation of coal scenarios against the continued coal operation scenarios. In other words, (1) retirement of all three units, (2) conversion of all three units, or any (3) combination of retirement and gas conversion would use a slightly lower O&M forecast in 2022 – 2024 when compared to either of the environmental control scenarios. However, upon discovering such a minor change was immaterial, SPS opted against adding another layer of complexity to the analysis and kept the fixed O&M forecast in 2022 – 2024 consistent across all scenarios, with the exception of retiring all three units. In doing so, the analysis understates the advantages of converting Harrington to gas compared against alternatives such as continued operation of coal and early retirement of the units.
 - d. Please refer to subpart (c).

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

QUESTION NO. Sierra Club 3-7:

Please refer to SPS's modeling files provided in response to SC 1-3(i). Please provide SPS's projected emission rates for the following pollutants at the Harrington units if converted to operate on gas:

- a. CO₂,
- b. NO_x,
- c. particulate matter.
- d. Explain in detail and provide all documentation supporting SPS's assumptions around the projected emissions rates for CO₂, NO_x, and particulate matter, if the Harrington units are converted to gas.

RESPONSE:

- a. Please refer to the Resource Annual Emissions tab in the EnCompass Output Files provided in Exhibit SPS-SC 1-3(i)(CONF).
- b. Please refer to subpart (a).
- c. Please refer to subpart (a).
- d. For the purposes of modeling the Harrington units following the gas conversion, SPS relied upon the emission rates of its most similar gas-steam unit, Jones 2. These will be refined as performance specifications for the modified equipment once they are obtained and verified.

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

QUESTION NO. Sierra Club 3-8:

Refer to SPS's response to SC 1-5.b. Confirm that SPS is not aware of any transmission system updates or changes that would be needed to allow for the retirement of any of the Harrington units. If not confirmed, provide all documents related to any transmission upgrade necessary to retire any or all of units.

RESPONSE:

As stated in SPS's response to SC 1-5.b, any transmission system updates or changes needed, potentially including conversion of generation facilities to synchronous condensers which would become transmission assets, to allow for the retirement of any of the Harrington units will be studied and identified by the Southwest Power Pool. The Southwest Power Pool will perform the study and they will identify any transmission upgrades necessary to retire any or all of the units.

Preparer: Jarred Cooley
Sponsor: William A. Grant

QUESTION NO. Sierra Club 3-9:

Please refer to SPS's response to SC 1-6. Has SPS/Xcel evaluated whether any individual Harrington unit may require additional investments to comply with the Regional Haze Rule if converted to burn gas. If not, why? If so, please provide all supporting analyses, cost projections, calculations, data, documents, modeling input and output files, and work papers associated with compliance with the Regional Haze Rule at any or all units.

RESPONSE:

There are no additional investments required to comply with the Regional Haze Rule once the Harrington units are converted to gas. The units will be modified to allow for further gas combustion to meet the nameplate capacity. However, no other controls or investments are needed for compliance.

Preparer: Jeffrey L. West
Sponsor: Jeffrey L. West

QUESTION NO. Sierra Club 3-10:

Has SPS submitted to TCEQ any application to modify its Part 70 or Title V operating permit to reflect its proposed modification of the Harrington power plant? If yes, please provide SPS's application and all supporting modeling and documentation. If not, why not?

RESPONSE:

Yes. SPS submitted Pollution Control Project Standard Permit Applications and Permit Alteration Applications on March 30, 2021 to revise NSR Permits 1388 and 5129. SPS received the amended permits (1388 and 5129) on May 20, 2021. Please refer to Exhibit SPS-SC 3-10.

Preparer: Jeffrey L. West
Sponsor: Jeffrey L. West

QUESTION NO. Sierra Club 3-11:

Please refer to SPS Exhibit SPS-SC 1-27.1 at 4 of 90.

- a. Did SPS obtain any authorization from the U.S. Army Corps of Engineers for the proposed pipeline, including, but not limited to, any certification under Nationwide Permit 12 or any other authorization under the Clean Water Act or the Endangered Species Act? If so, please provide all such authorizations or documents reflecting any communications with the U.S. Army Corps of Engineers related to any such authorization. If not, why not?
- b. Please provide all communications with the U.S. Army Corps of Engineers related to the need for any authorization for the pipeline.

RESPONSE:

To date, there has been no correspondence with the U.S. Army Corp or Engineers regarding the proposed pipeline. This agency will be contacted in the future as required.

Preparer: Jeffrey L. West
Sponsor: Jeffrey L. West

QUESTION NO. Sierra Club 3-12:

Please refer to SPS Exhibit SPS-SC 1-27.1 at 17 of 90.

- a. Did SPS obtain any authorization from the Fish and Wildlife Service under the Endangered Species Act for the proposed pipeline? If so, please provide all such authorizations or documents reflecting any communications related to any such authorization. If not, why not?
- b. Please provide all communications with the Texas Parks & Wildlife Department related to the pipeline or its impacts to endangered species, including, but not limited to all assessments referenced in paragraph 12.3.
- c. Please provide all communications with the Fish and Wildlife Service related to the pipeline or its impacts to endangered species, including, but not limited to all assessments, all additional species-specific surveys, or seasonal restrictions referenced in paragraph 12.3.1

RESPONSE:

- a. There has been no correspondence with Fish and Wildlife Service to date. This agency will be contacted in the future as required.
- b. In Texas, the Texas Parks & Wildlife Department requested that SPS provide a copy of the Environmental Assessment filed in the Texas case (Docket No. 52485). Please refer to Exhibit SPS-SC 4-13 for a copy of the communication.
- c. See "a" above.

Preparer: Jeffrey L. West
Sponsor: Jeffrey L. West

QUESTION NO. Sierra Club 3-13:

Please refer to SPS Exhibit SPS-SC 1-27.1 at 18 of 90. Did SPS obtain any authorization from the U.S. Environmental Protection Agency or the Texas Commission on Environmental Quality for the proposed pipeline, including, but not limited to any authorization under the Clean Water Act or the Clean Air Act? If so, please provide all such authorizations or documents reflecting any communications related to any such authorization. If not, why not?

RESPONSE:

To date, there has been no communication with the US Environmental Protection Agency or the Texas Commission on Environmental Quality regarding the proposed pipeline.

This agency will be contacted in the future as required.

Preparer: Jeffrey L. West
Sponsor: Jeffrey L. West

QUESTION NO. Sierra Club 3-14:

Please provide all communications with the U.S. Environmental Protection Agency or the Texas Commission on Environmental Quality related to the pipeline, including, but not limited to all assessments referenced in paragraph 12.5.

RESPONSE:

There has been no communication with the US Environmental Protection Agency or the Texas Commission on Environmental Quality to date regarding the proposed pipeline. These agencies will be contacted in the future as required.

Preparer: Jeffrey L. West
Sponsor: Jeffrey L. West

QUESTION NO. Sierra Club 3-15:

Refer to SPS Response to SC 1-4(e)(i), Attachments Encompass Cost Inputs - Gas Conversion and Encompass Cost Inputs - Partial Gas Conversion.

- a. Explain the basis, and provide all documentation, for the Company's ongoing Capex assumption for units converted to operate on gas that are hard-coded in this attachment (e.g., sheets labeled, "Gas" tabs, cells H12 through H15).
- b. Please refer to the sheet labeled "GasCapX." Please provide SPS's actual capital expenditures for the Harrington facility and each of the Harrington units from 2000 through 2020, including the total amounts by year for each facility.
- c. Please provide a list of all maintenance projects or other projects or expenditures which were booked as capital expenditures for Harrington from 2005 through 2020, including the year, the amount of the expenditure, the respective unit, a description of what work was performed and/or equipment replaced, and for each such project, indicate whether it had any relation to the coal-handling equipment that is being discontinued.
- d. Please produce any documents which are maintenance plans or schedules for Harrington, which are in current use or have been in use at any time since 2010.
- e. Please refer to the sheet labeled "GasCapX," cell E69. Explain how frequently each Harrington unit requires a Generator Rotor Rewind, and please provide the history of such rewind expenses for each unit.
- f. Please refer to the sheet labeled "GasCapX," cell C71 and C72. Please explain the need for each listed expense, and provide the history of such expenses for each unit.
- g. Please refer to the sheet labeled "GasCapX," line 73.
 1. Please explain the expenses listed in this row, and provide all documentation supporting those expenses.
 11. Please explain the expense listed in G73, and provide all documentation supporting that expense.
- h. Please refer to the sheet labeled "Gas." Confirm that SPS's projections assume that the Harrington units, after they are converted to gas, will require zero capital expenditures to comply with environmental regulations from 2025 through the end of their useful life. If not confirmed, please identify and explain the projected environmental costs and where they appear in the attachment.

RESPONSE:

- a. Please refer to SPS's response to Question No. SPS-SC 2-3(a). Cells H12:H15 on the sheet 'Gas' represent the annual capital expenditure forecast of \$3.75M per year (escalated at 2% per year), split evenly between Harrington Units 0-3.
- b. The total expenditures for the Harrington facility, by unit and year, are shown in the table below. Please note, these are total capital expenditures, not solely Capital Additions.

Year	HAR Unit 0	HAR Unit 1	HAR Unit 2	HAR Unit 3	HAR Units 1 & 2
2000	\$ 600,836		\$ 69,375	\$ 1,151,189	
2001	\$ 1,135,602	\$ 5,807,348	\$ 644,988	\$ 1,412,510	\$ 17,064,627
2002	\$ 186,497	\$ 27,952	\$ 212,580	\$ 216,082	
2003	\$ 3,196,296	\$ 37,309	\$ 2,002,346	\$ 10,102,388	
2004	\$ 590,308	\$ 4,266,737	\$ 503,815	\$ 344,814	
2005	\$ 643,865	\$ 1,075,074	\$ 6,846,832	\$ 1,294,211	
2006	\$ 295,752	\$ 180,528	\$ 311,281	\$ 11,305,989	
2007	\$ 2,299,368	\$ 9,205,912	\$ 243,496	\$ 963,936	
2008	\$ 872,232	\$ 420,360	\$ 13,484,275	\$ 554,236	
2009	\$ 787,399	\$ 240,229	\$ 975,702	\$ 2,315,459	
2010	\$ 671,891	\$ 13,156,659	\$ 2,325,491	\$ 1,622,981	
2011	\$ 743,025	\$ 476,677	\$ 7,031,991	\$ 231,587	
2012	\$ 3,955,688	\$ 1,771,089	\$ 1,469,395	\$ 10,844,679	
2013	\$ 130,132	\$ 10,358,091	\$ 1,272,988	\$ 707,209	
2014	\$ 1,923,041	\$ 122,102	\$ 13,056,060	\$ 1,979,131	
2015	\$ 927,263	\$ 8,680,725	\$ 8,487,919	\$ 12,420,325	
2016	\$ 1,685,801	\$ 16,118,079	\$ 7,067,506	\$ 963,821	
2017	\$ 1,073,508	\$ 3,223,731	\$ 12,311,935	\$ 1,575,133	
2018	\$ 1,686,243	\$ 874,941	\$ 1,048,545	\$ 11,891,749	
2019	\$ 1,209,396	\$ 6,656,530	\$ 924,268	\$ 4,351,375	
2020	\$ 154,467	\$ 855,680	\$ 11,275,881	\$ 1,339,136	
Grand Total	\$ 24,768,611	\$ 83,555,754	\$ 91,566,669	\$ 77,587,940	\$ 17,064,627

"HAR UNIT 0" refers to costs assigned to the Harrington Station as a whole.

- c. See Exhibit SPS-SC 3-15(c) .
- d. See Exhibit SPS-SC 3-15(d)(V).
- e. All of the generator rotors currently in place are original equipment. The Unit 2 generator rotor is exhibiting signs of end of life and will be rewound in the future. The remaining two generator rotors are not having issues and there are no plans to rewind them at the current time.

- f. Circulation Water piping liner replacement – This project consists of removing a liner and replacing it on Unit 3. The liner was installed in the past as a way to add structural and corrosion resistant support to the original steel piping. The liner is failing and need of replacement. All previous expenditures are listed in the following table.

Unit	Projects Description (WBS Level 4 Description)	Year	Total Expenditures
HAR Unit 1	HAR1C-H1 Rpl Failed Circ Pipe Liner	2013	133,602
HAR Unit 3	HAR3C-RPL Failed Circ Liner	2013	241,224

Cooling Tower Structural Replacement – This project is the final phase of the replacement of the Harrington Unit 3 Cooling Tower internal structure. After approximately forty years, the structure of the cooling tower has reached end of life. This will complete all of the cooling tower structure on all units. Previous expenditures are listed in the following table.

HAR Unit 1	HAR Unit 2	HAR Unit 3
\$ 8,814,850.65	\$ 10,212,206.72	\$ 1,431,715.16

- g. The \$64,214,669 included on Row 73 of the tab labeled “GasCapX” represents approximately \$65M in capital expenditure for converting all Harrington Units to operate on natural gas (inclusive of the gas pipeline). Please refer to SPS response to Question No. SPS-SC 2-1 for information on the estimated costs of converting all Harrington Units to operate on natural gas.
- h. Confirmed, to the extent the question is referring to new or proposed environmental regulations. SPS’s current capital cost projections do assume continued compliance with existing environmental rules and regulations.

Preparers: Ben R. Elsey, Mark Lytal
 Sponsors: Ben R. Elsey, Mark Lytal

QUESTION NO. Sierra Club 3-16:

Please refer to SPS's response to SC 2-3 (a), in which you stated that "Based on discussions with the Xcel Energy Projects team, SPS then assumed an annual capital expenditure forecast of \$3.75M per year (escalated at 2% per year) after the units were converted to operate on natural gas." To the extent not already answered in your response to 5-1(a), please the detailed basis of the \$3.75M estimate and explain why SPS is assuming ongoing capital expenditures for the converted Harrington units which are materially less than the Company's historic expenditures provided in 1-7(i,j).

RESPONSE:

It is not clear what Sierra Club means by reference to 5-1(a) because there is no fifth set of discovery from Sierra Club. Nevertheless, SPS has already provided all responsive documentation to in response to SC RFI 2-3.

Historically, the Harrington Units were operated as baseload coal units. After the conversion to operate on natural gas, SPS anticipate the Harrington Units will be operated more as peaking units. Therefore, the reduction in projected ongoing capital expenditures is twofold: First, SPS will no longer be required to maintain the coal assets (e.g., coal mills, baghouse etc.). Second, operating the units at a much lower capacity factor will materially reduce capital expenditure.

Preparers: Ben R. Elsey, Mark Lytal
Sponsors: Ben R. Elsey, Mark Lytal

QUESTION NO. Sierra Club 3-17:

Refer to Exhibit SPS-SC 1-7(n) regarding the undepreciated plant balance remaining for Harrington.

- a. Explain where these costs are modeled in EnCompass. Specifically, state which field and which resource contain the undepreciated plant balances.
- b. State whether the undepreciated plant balance is entered in the EnCompass model as a onetime Capital Expenditure associated with a Company Asset.
- c. Explain why the onetime Capital Expenditures associated with each Company Asset differ across scenarios.
- d. Provide all workpapers showing how the undepreciated plant balance is converted into the cost streams we see in EnCompass.

RESPONSE:

- a. Please refer to Question No. 3-6(b)
- b. The undepreciated plant balance is entered in the EnCompass model as a onetime Capital Expenditure.
- c. The undepreciated plant balance differs across scenarios due to the different useful service lives in which the undepreciated plant balance is depreciated over.
- d. The conversion is calculated internally within the EnCompass model. SPS does not have any further workpapers to provide.

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

QUESTION NO. Sierra Club 3-18:

Refer to Exhibit SPS-1-3(i) CONF (the Encompass files for the Harrington analysis).

- a. Explain how and where the decommissioning costs are included in the EnCompass model.
- b. Explain where the Scenario 2 files are located in the EnCompass files for the Harrington analysis. If they are not provided, please produce those files.

RESPONSE:

- a. Please refer to Question No. 3-6(b).
- b. Please refer to Question No. 3-19(a).

Preparers: Ben R. Elsey

Sponsors: Ben R. Elsey

QUESTION NO. Sierra Club 3-19:

It appears to Sierra Club that SPS has not provided Encompass files for the baseline scenario used in the Company's Harrington Analysis; but also that the baseline scenario is identical for Company's Harrington Analysis and for the Tolk Analysis, for which the Company previously produced its Encompass data files to Sierra Club in New Mexico Public Regulation Commission Case No. 21-00169-UT.

- a. Please confirm that the baseline scenario is identical for the Company's Harrington and Tolk Analyses, both in terms of the real-world scenarios which are modeled, and the modeling data and assumptions. If the baseline scenarios in the two analyses are not identical, please state the material differences.
- b. Please state any objections (either legal or methodological) that SPS may make to Sierra Club utilizing the Tolk Analysis Encompass data files for the baseline scenario produced to Sierra Club in the prior case for Sierra Club's modeling of Harrington retirement and conversion scenarios.

RESPONSE:

- a. Confirmed.

Note: The baseline scenario for the Harrington Analysis (2021 IRP_SC2) was included with the EnCompass input and output files provided in Exhibit SPS-SC 1-3(i)(CONF).

- c. As described in subpart (a), SPS has provided the EnCompass input and output files for the Harrington Analysis baseline scenario. The baseline scenario for the Harrington Analysis is identical to the baseline scenario for the Tolk Analysis. At this time, SPS is unable to take a position on whether it has any objections (legal or methodological) to Sierra Club utilizing the Tolk Analysis Encompass data files for the baseline scenario because SPS is unable to analyze how Sierra Club might use that data.

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

QUESTION NO. Sierra Club 3-20:

Refer to SPS response to SC 1-4(e), regarding the Company's cost assumptions for new generic solar PV resources, new generic wind resources, and new generic battery storage resources provided as part of SC 1-3(i) CONF in the Company's EnCompass modeling files.

- a. State the source of each cost projection for all resources S23-S50, B23-B50, W23- W50.
- b. For each resource referenced in (a), state the assumptions included for each regarding the expiration of the ITC and PTC.
- c. For each solar and wind resource referenced in (a), provide all workpapers showing the Company's capital cost assumptions, and how they were converted into the LCOE used in the model.
- d. For each battery storage resource referenced in (a), provide all workpapers showing the Company's capital cost assumptions, and how they were converted into the fixed costs used in the mode.

RESPONSE:

- a. SPS used the 2020 NREL ATB dataset as the basis for the cost projections for generic renewable and storage projects. The 2020 NREL ATB data was adjusted to include SPS specific financial data.
- b. For generic wind and solar resources, please refer to Exhibit SPS-TIEC 2-7, specifically the file ‘GenericCosts_2020_ATB_ZeroTRX_FlatPPA_2021-04-09.xlsx’. The PTC assumptions for generic wind can be found on the worksheet “PTC” and the ITC assumptions for generic solar can be found on the worksheet “Solar by year”. SPS did not include an ITC for standalone storage projects.

Note: SPS only used generically priced resources beginning 1/1/2026. Prior to 1/1/2026, SPS relied upon the pricing received from the RFI proposals. SPS used the project-specific ITC and PTC for the proposals received in the RFI.

- c. Please refer to Exhibit SPS-TIEC 2-7.
- d. Please refer to Exhibit SPS-TIEC 2-7.

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

QUESTION NO. Sierra Club 3-21:

Please refer to the Direct Testimony of Mark Lytal at page 9, line 7.

- a. Has SPS entered have any firm fuel supply or gas transmission contract(s) with ONEOK WesTex Transmission L.L.C. or any other natural gas provider for the firm supply of natural gas to operate the converted Harrington units? If yes, please provide all such contracts. If not, why not?
- b. If there are no contracts for the firm supply of natural gas, please explain how SPS intends to procure gas supply.
- c. If SPS determines to retire the converted Harrington units after ten years due to SPS market conditions or otherwise, can the Company terminate any firm fuel supply contract? Identify any provisions of the Agreement that provide customers with this type of protection.

RESPONSE:

- a. SPS contracts for firm gas transportation service with ONEOK, El Paso Natural Gas, Northern Natural Gas, MarkWest New Mexico and MarkWest Power Tex to support delivery of natural gas to all the SPS power plants, including Harrington Station. These contracts have remaining terms ranging from 1 to 11 years, and they have the ability to deliver to multiple power plant locations, providing SPS with the flexibility to redirect delivery of natural gas supplies where it is needed to support the ever-changing load demands on the system. SPS continually reviews its portfolio of gas transportation agreements and adjusts the level of contract capacity needed to support reliable system operations. This review includes determining whether to renew agreements when they expire. It also involves the evaluation of system need as generating units are retired, including the future retirement of the converted Harrington Station.
- b. SPS has engaged in preliminary discussions with ONEOK, El Paso Natural Gas and Natural Gas Pipeline Company of America regarding incremental gas transportation service to support future reliable operations of the SPS power plants, including the conversion of Harrington Station. Any such agreements SPS enters into will complement the existing portfolio of contracts to provide reliable service to all the SPS generating units. Regarding gas purchase contracts, the gas supply market in SPS' service territory is very liquid. Gas purchase contracts are not typically entered into years in advance of their use. Like most gas purchasers, SPS purchases its gas using a mix of seasonal, monthly, and daily contracts. Accordingly, gas supply for the Harrington Station will be acquired around the time the plant goes into service.

- c. See response to Sierra Club 3-21a. As noted, the gas transportation agreements provide the flexibility to redirect delivery of natural gas supplies where needed on the SPS system.

Preparer: Jeffrey Hild
Sponsor: William A. Grant

QUESTION NO. Sierra Club 3-22:

Has SPS evaluated the possibility that the converted Harrington units do not operate for the remainder of their currently projected useful life? If so, please provide all such analysis. If not, why?

RESPONSE:

No. SPS is unaware of any reason why the converted Harrington units would not operate for the remainder of their currently projected useful lives.

Preparer: Ben R. Elsey

Sponsors: Ben R. Elsey, William A. Grant

QUESTION NO. Sierra Club 3-23:

If the proposed converted Harrington units cease operating or cease burning gas before the expiration of their currently projected useful life, how does SPS intend to recover the undepreciated balance of the proposed investment to convert the units?

RESPONSE:

SPS anticipates that the recovery of undepreciated assets retired prior to the end of their useful lives will be provided for in a future rate proceeding.

Preparer: Mark Lytal
Sponsor: William A. Grant

QUESTION NO. Sierra Club 3-24:

Confirm that the Company plans to offer the converted Harrington units into the SPS energy market with a commitment status other than "must run" or "self commit" for all hours. If your answer is qualified, please explain that context in which the Company would offer these units as "must run" or "self commit" into the SPS energy market.

RESPONSE:

SPS plans to offer the converted Harrington units into the Southwest Power Pool market. SPS will offer the units with a commitment status of "market" with a few exceptions. SPS may offer Harrington in "self commit" status to complete required environmental testing, or for operational reliability purposes such as cold weather.

Preparer: Jeffrey Haskins
Sponsor: William A. Grant

QUESTION NO. Sierra Club 3-25:

Is the Company aware of any operational considerations that might cause the Company to offer the converted Harrington units into the SPS energy market with a "must run" or "self commitment" status? If yes, describe operational considerations that might cause the Company to offer these units as "must run" or "self commit."

RESPONSE:

Please see response to Question SC 3-24.

Preparer: Jeffrey Haskins
Sponsor: William A. Grant

QUESTION NO. Sierra Club 3-26:

Is the Company aware of any contractual reasons (such as a minimum take or minimum purchase obligation) that might cause the Company to offer the converted Harrington units into the energy market with a "must run" or "self commitment" status? If yes, describe operational considerations that might cause the Company to offer these units as "must run" or "self commit."

RESPONSE:

No, see response to Question SC 3-24 for operational considerations.

Preparers: Jeffrey Haskins, Richard Derryberry
Sponsors: William A. Grant

QUESTION NO. Sierra Club 3-27:

Is the Company aware of any contractual or other considerations that might cause the Company to offer the converted Harrington units into the SPS energy market at a price lower than their incremental cost, i.e., at a decrement price? If not, please confirm the Company's assurance that it will never be compelled to resort to decrement pricing for these converted units.

RESPONSE:

The company is not currently aware of any contractual, or other considerations that would cause an offer below cost. Without such a requirement the company will offer the units at cost.

Preparers: Jeffrey Haskins, Richard Derryberry
Sponsor: William A. Grant

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 January 12, 2022, in accordance with the Order Suspending Rules, issued in Project No. 50664.



Mark A. Santos

Jon Niermann, *Chairman*Emily Lindley, *Commissioner*Bobby Janecka, *Commissioner*Toby Baker, *Executive Director*

TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

Protecting Texas by Reducing and Preventing Pollution

May 13, 2021

MR DAVID LOW
 GENERAL MANAGER, POWER GENERATION
 SOUTHWESTERN PUBLIC SERVICE COMPANY
 790 S BUCHANAN ST
 AMARILLO TX 79101-2510

Re: Pollution Control Projects Air Quality Standard Permit
 (Effective 2/9/2011)
 Standard Permit Registration Number: 164552
 Standard Permit Expiration Date: May 13, 2031
 Southwestern Public Service Company
 Harrington Station Power Plant
 Affected Permit: 1388
 Amarillo, Potter County
 Regulated Entity Number: RN100224849
 Customer Reference Number: CN601481336

Dear Mr. Low:

Southwestern Public Service Company submitted an application on March 30, 2021 to register construction related to Pollution Control Projects to be located in Amarillo, Potter County. We understand that this registration is for emissions associated with the gas conversion project related to Unit 1 Boiler.

The Texas Commission on Environmental Quality (TCEQ) has determined that your proposed emissions are authorized by this standard permit pursuant to Title 30 Texas Administrative Code § 116.602 and Texas Health and Safety Code § 382.05195, if constructed and operated as described in your registration.

You must begin construction or modification of these facilities in accordance with this standard permit no later than 18 months after the date of this letter. After completion of construction or modification, the appropriate TCEQ Regional Office must be notified prior to commencing operation and the facility shall be operated in compliance with all applicable conditions of the claimed standard permit.

You are reminded that 30 TAC § 116.615 requires that any construction or change authorized by this standard permit be administratively incorporated into the affected facilities' permit(s) at the next amendment or renewal.

You are also reminded that these facilities must comply with all rules and regulations of the TCEQ and of the U.S. Environmental Protection Agency at all times.

If you need further information or have any questions, please contact Mr. Kevin Whitenight at (713) 767-3748 or write to the Texas Commission on Environmental Quality, Office of Air, Air Permits Division, MC-163, P.O. Box 13087, Austin, Texas 78711-3087.

Mr. David Low
Page 2
May 13, 2021

Re: Standard Permit Registration Number 164552

Sincerely,



Kristyn Campbell, Manager
Rule Registrations Section
Air Permits Division
Texas Commission on Environmental Quality

cc: Air Section Manager, Region 1 - Amarillo

Project Number: 327106

Jon Niermann, *Chairman*

Emily Lindley, *Commissioner*

Bobby Janecka, *Commissioner*

Toby Baker, *Executive Director*



TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

Protecting Texas by Reducing and Preventing Pollution

May 13, 2021

MR DAVID LOW
GENERAL MANAGER, POWER GENERATION
SOUTHWESTERN PUBLIC SERVICE COMPANY
790 S BUCHANAN ST
AMARILLO TX 79101-2510

Re: Pollution Control Projects Air Quality Standard Permit
(Effective 2/9/2011)
Standard Permit Registration Number: 164554
Standard Permit Expiration Date: May 13, 2031
Southwestern Public Service Company
Harrington Station Power Plant
Affected Permit: 5129
Amarillo, Potter County
Regulated Entity Number: RN100224849
Customer Reference Number: CN601481336

Dear Mr. Low:

Southwestern Public Service Company submitted an application on March 30, 2021 to register construction related to Pollution Control Projects to be located in Amarillo, Potter County. We understand that this registration is for emissions associated with gas conversion project related to Units 2 and 3.

The Texas Commission on Environmental Quality (TCEQ) has determined that your proposed emissions are authorized by this standard permit pursuant to Title 30 Texas Administrative Code § 116.602 and Texas Health and Safety Code § 382.05195, if constructed and operated as described in your registration.

You must begin construction or modification of these facilities in accordance with this standard permit no later than 18 months after the date of this letter. After completion of construction or modification, the appropriate TCEQ Regional Office must be notified prior to commencing operation and the facility shall be operated in compliance with all applicable conditions of the claimed standard permit.

You are reminded that 30 TAC § 116.615 requires that any construction or change authorized by this standard permit be administratively incorporated into the affected facilities' permit(s) at the next amendment or renewal.

You are also reminded that these facilities must comply with all rules and regulations of the TCEQ and of the U.S. Environmental Protection Agency at all times.

If you need further information or have any questions, please contact Mr. Kevin Whitenight at (713) 767-3748 or write to the Texas Commission on Environmental Quality, Office of Air, Air Permits Division, MC-163, P.O. Box 13087, Austin, Texas 78711-3087.

Mr. David Low
Page 2
May 13, 2021

Re: Standard Permit Registration Number 164554

Sincerely,



Kristyn Campbell, Manager
Rule Registrations Section
Air Permits Division
Texas Commission on Environmental Quality

cc: Air Section Manager, Region 1 - Amarillo

Project Number: 327108

Jon Niermann, *Chairman*

Emily Lindley, *Commissioner*

Bobby Janecka, *Commissioner*

Toby Baker, *Executive Director*



TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

Protecting Texas by Reducing and Preventing Pollution

May 20, 2021

MR DAVID LOW
GENERAL MANAGER, POWER GENERATION
SOUTHWESTERN PUBLIC SERVICE COMPANY
790 S BUCHANAN ST
AMARILLO TX 79101-2510

Re: Permit Alteration
Permit Number: 1388
Expiration Date: February 13, 2024
Southwestern Public Service Company
Harrington Station Power Plant
Amarillo, Potter County
Regulated Entity Number: RN100224849
Customer Reference Number: CN601481336
Associated Permit Number: PSDTX631M1

Dear Mr. Low:

Southwestern Public Service Company has requested alteration of the conditions of the above-referenced permit.

In accordance with Title 30 Texas Administrative Code §116.116(c), Permit Number 1388 is altered. Enclosed are the new general conditions and altered special conditions. Please attach these to your permit.

All preconstruction authorizations (including authorization for emissions of greenhouse gases, if applicable) should be obtained prior to start of construction.

If you need further information or have any questions, please contact Ms. Jennifer Washbourne at (512) 239-1263 or write to the Texas Commission on Environmental Quality, Office of Air, Air Permits Division, MC-163, P.O. Box 13087, Austin, Texas 78711-3087.

Sincerely,

A handwritten signature in black ink, appearing to read "Samuel Short". A horizontal line extends from the end of the signature.

Samuel Short, Deputy Director
Air Permits Division
Office of Air
Texas Commission on Environmental Quality

Mr. David Low
Page 2
May 20, 2021

Re: Permit Number: 1388

Enclosure

cc: Air Section Manager, Region 1 - Amarillo
Air Permits Section Chief, New Source Review Section (6PD-R), U.S. Environmental Protection Agency, Region 6, Dallas

Project Number: 327104



**Texas Commission on Environmental Quality
Air Quality Permit**

*A Permit Is Hereby Issued To
Southwestern Public Service Company
Authorizing the Construction and Operation of
Harrington Station Power Plant
Located at Amarillo, Potter County, Texas
Latitude 35° 17' 55" Longitude -101° 44' 46"*

Permit: 1388 and PSDTX631M1

Revision Date: May 20, 2021

Expiration Date: February 13, 2024



Troy Baker
For the Commission

1. **Facilities covered by this permit shall be constructed and operated as specified in the application for the permit.** All representations regarding construction plans and operation procedures contained in the permit application shall be conditions upon which the permit is issued. Variations from these representations shall be unlawful unless the permit holder first makes application to the Texas Commission on Environmental Quality (commission) Executive Director to amend this permit in that regard and such amendment is approved. [Title 30 Texas Administrative Code (TAC) Section 116.116 (30 TAC § 116.116)]¹
2. **Voiding of Permit.** A permit or permit amendment is automatically void if the holder fails to begin construction within 18 months of the date of issuance, discontinues construction for more than 18 months prior to completion, or fails to complete construction within a reasonable time. Upon request, the executive director may grant an 18-month extension. Before the extension is granted the permit may be subject to revision based on best available control technology, lowest achievable emission rate, and netting or offsets as applicable. One additional extension of up to 18 months may be granted if the permit holder demonstrates that emissions from the facility will comply with all rules and regulations of the commission, the intent of the Texas Clean Air Act (TCAA), including protection of the public's health and physical property; and (b)(1)the permit holder is a party to litigation not of the permit holder's initiation regarding the issuance of the permit; or (b)(2) the permit holder has spent, or committed to spend, at least 10 percent of the estimated total cost of the project up to a maximum of \$5 million. A permit holder granted an extension under subsection (b)(1) of this section may receive one subsequent extension if the permit holder meets the conditions of subsection (b)(2) of this section. [30 TAC § 116.120]
3. **Construction Progress.** Start of construction, construction interruptions exceeding 45 days, and completion of construction shall be reported to the appropriate regional office of the commission not later than 15 working days after occurrence of the event. [30 TAC § 116.115(b)(2)(A)]
4. **Start-up Notification.** The appropriate air program regional office shall be notified prior to the commencement of operations of the facilities authorized by the permit in such a manner that a representative of the commission may be present. The permit holder shall provide a separate notification for the commencement of operations for each unit of phased construction, which may involve a series of units commencing operations at different times. Prior to operation of the facilities authorized by the permit, the permit holder shall identify the source or sources of allowances to be utilized for compliance with Chapter 101, Subchapter H, Division 3 of this title (relating to Mass Emissions Cap and Trade Program). [30 TAC § 116.115(b)(2)(B)]
5. **Sampling Requirements.** If sampling is required, the permit holder shall contact the commission's Office of Compliance and Enforcement prior to sampling to obtain the proper data forms and procedures. All sampling and testing procedures must be approved by the executive director and coordinated with the regional representatives of the commission. The permit holder is also responsible for providing sampling facilities and conducting the sampling operations or contracting with an independent sampling consultant. [30 TAC § 116.115(b)(2)(C)]
6. **Equivalency of Methods.** The permit holder must demonstrate or otherwise justify the equivalency of emission control methods, sampling or other emission testing methods, and monitoring methods proposed as alternatives to methods indicated in the conditions of the permit. Alternative methods shall be applied for in writing and must be reviewed and approved by the executive director prior to their use in fulfilling any requirements of the permit. [30 TAC § 116.115(b)(2)(D)]
7. **Recordkeeping.** The permit holder shall maintain a copy of the permit along with records containing the information and data sufficient to demonstrate compliance with the permit, including production records and

operating hours; keep all required records in a file at the plant site. If, however, the facility normally operates unattended, records shall be maintained at the nearest staffed location within Texas specified in the application; make the records available at the request of personnel from the commission or any air pollution control program having jurisdiction in a timely manner; comply with any additional recordkeeping requirements specified in special conditions in the permit; and retain information in the file for at least two years following the date that the information or data is obtained. [30 TAC § 116.115(b)(2)(E)]

1. **Maximum Allowable Emission Rates.** The total emissions of air contaminants from any of the sources of emissions must not exceed the values stated on the table attached to the permit entitled "Emission Sources--Maximum Allowable Emission Rates." [30 TAC § 116.115(b)(2)(F)]¹
2. **Maintenance of Emission Control.** The permitted facilities shall not be operated unless all air pollution emission capture and abatement equipment is maintained in good working order and operating properly during normal facility operations. The permit holder shall provide notification in accordance with 30 TAC §101.201, 101.211, and 101.221 of this title (relating to Emissions Event Reporting and Recordkeeping Requirements; Scheduled Maintenance, Startup, and Shutdown Reporting and Recordkeeping Requirements; and Operational Requirements). [30 TAC§ 116.115(b)(2)(G)]
3. **Compliance with Rules.** Acceptance of a permit by an applicant constitutes an acknowledgment and agreement that the permit holder will comply with all rules and orders of the commission issued in conformity with the TCAA and the conditions precedent to the granting of the permit. If more than one state or federal rule or regulation or permit condition is applicable, the most stringent limit or condition shall govern and be the standard by which compliance shall be demonstrated. Acceptance includes consent to the entrance of commission employees and agents into the permitted premises at reasonable times to investigate conditions relating to the emission or concentration of air contaminants, including compliance with the permit. [30 TAC § 116.115(b)(2)(H)]
4. **This** permit may not be transferred, assigned, or conveyed by the holder except as provided by rule. [30 TAC § 116.110(e)]
5. **There** may be additional special conditions attached to a permit upon issuance or modification of the permit. Such conditions in a permit may be more restrictive than the requirements of Title 30 of the Texas Administrative Code. [30 TAC § 116.115(c)]
6. **Emissions** from this facility must not cause or contribute to "air pollution" as defined in Texas Health and Safety Code (THSC) §382.003(3) or violate THSC § 382.085. If the executive director determines that such a condition or violation occurs, the holder shall implement additional abatement measures as necessary to control or prevent the condition or violation.
7. **The** permit holder shall comply with all the requirements of this permit. Emissions that exceed the limits of this permit are not authorized and are violations of this permit.¹

¹ Please be advised that the requirements of this provision of the general conditions may not be applicable to greenhouse gas emissions.

Special Conditions

Permit Numbers 1388 and PSDTX631M1

1. This permit covers only those sources of emissions listed in the attached table entitled, "Emission Sources - Maximum Allowable Emission Rates" (MAERT), and those sources are limited to the emission limits and other conditions specified in that attached table. This permit authorizes maintenance, startup, and shutdown (MSS) activities which comply with the emission limits in the MAERT.

Operational Limitations

2. The emissions from the Unit No. 1 steam generator stack, Emission Point Number (EPN) HS-1, shall not exhibit an opacity greater than 20 percent (six-minute average), except as allowed under Title 30 Texas Administrative Code (30 TAC) § 111.111(a)(1)(E), Title 40 Code of Federal Regulations (40 CFR) § 60.42(a)(2), or Special Condition No. 16 of this permit.
3. Fuel shall be limited to the following:
 - A. Low sulfur western coal and/or an equivalent coal with properties that will ensure compliance with the permit maximum allowable emission rates as specified by the MAERT. This condition no longer applies after December 31, 2024, per the requirements of Agreed Order Docket No. 2020-0982-MIS. **(05/21)**
 - B. Pipeline quality sweet natural gas.
4. In order to determine continuing compliance with the MAERT, the firing rate of Unit No. 1 shall be limited to 3,630 million British thermal units per hour (MMBtu/hr) on an hourly average, based on fuel quality analysis and plant fuel flow monitoring.
5. The emissions of carbon monoxide (CO) from Unit No.1 shall not exceed 0.33 pound per MMBtu, on a 30-day rolling average. This limit does not apply during planned MSS activities.
6. Fly Ash Handling System (EPN HS-2). Fly ash loadout from the ash silo must be into enclosed trucks. A system shall be used to return to the ash silo any particulate dust emissions from the loading operations. Visible emissions from the truck loading operations shall not exceed 10 percent averaged over a six-minute period as measured by 40 CFR Part 60, Appendix A, Test Method 9.

Federal Applicability

7. The facilities shall comply with applicable requirements of EPA regulations in 40 CFR as follows:
 - A. Part 60, Standards of Performance for New Stationary Sources,
 - (1) Subpart A, General Conditions; and
 - (2) Subpart D, Standards of Performance for Fossil-Fuel-Fired Steam Generators for Which Construction Is Commenced after August 17, 1971.
 - B. Part 63, National Emission Standards for Hazardous Air Pollutants, Subpart UUUUU for Electric Utility Steam Generating Units. Six-months after ceasing coal operations, the unit will no longer be subject to Part 63, Subpart UUUUU. **(05/21)**

Special Conditions
Permit Numbers 1388 and PSDTX631M1
Page 2

- C. If any condition of this permit is more stringent than the regulations so incorporated, then for the purposes of complying with this permit, the permit shall govern and be the standard by which compliance shall be demonstrated.

Initial Determination of Compliance

- 8. Initial determination of compliance testing was completed in 1984.

Continuous Determination of Compliance

- 9. The holder of this permit shall install, calibrate, maintain, and operate a continuous emissions monitoring system (CEMS) to measure and record the concentrations of nitrogen oxides (NO_x) and diluent gases (oxygen or carbon dioxide) from EPN HS-1.
 - A. The CEMS shall meet the design and performance specifications, pass the field tests, and meet the installation requirements and the data analysis and reporting requirements specified in the applicable Performance Specification Nos. 2, 3, and 6 of 40 CFR Part 60, Appendix B, or an acceptable alternative. If there are no applicable performance specifications in 40 CFR Part 60, Appendix B, contact the Texas Commission on Environmental Quality (TCEQ) Air Permits Division in Austin for requirements to be met.
 - B. The holder of this permit shall assure that the CEMS meets the applicable quality-assurance requirements specified in 40 CFR Part 60, Appendix F, Procedure 1, or an acceptable alternative. Relative accuracy exceedances, as specified in 40 CFR Part 60, Appendix F, § 5.2.3 and any CEMS downtime shall be reported to the Director of the TCEQ Amarillo Regional Office, and necessary corrective action shall be taken. Supplemental stack concentration measurements may be required at the discretion of the appropriate TCEQ Regional Director.
 - C. The monitoring data shall be reduced to hourly average concentrations at least once every hour, using a minimum of four equally-spaced data points from each one-hour period. The individual average concentrations shall be reduced to units of the permit allowable emission rate in pounds per hour at least once every hour. Pound per hour data from EPN HS-1 shall be summed monthly to tons per year and used to determine compliance with the annual emissions limits of this permit.
 - D. All monitoring data and quality-assurance data shall be maintained by the source for a period of five years and shall be made available to the TCEQ Executive Director or his designated representative upon request.
 - E. The TCEQ Amarillo Regional Office shall be notified at least 30 days prior to any required relative accuracy test audits in order to provide them the opportunity to observe the testing.
 - F. In lieu of the requirements in Special Condition Nos. 9.A. through 9.E. pertaining to NO_x , the monitoring required by Special Condition No. 9 may be met by the use of a CEMS which will be required to meet the design and performance specifications, pass the field tests, and meet the installation requirements and data analysis and reporting requirements specified in the applicable performance specifications in 40 CFR Part 75, Appendix A. Title 40 CFR Part 75 is deemed an acceptable alternative to the performance specifications and quality-assurance requirements of 40 CFR Part 60.

Special Conditions

Permit Numbers 1388 and PSDTX631M1

Page 3

10. The holder of this permit will monitor EPN HS-1 with a continuous opacity monitoring system (COMS), operated in accordance with 40 CFR § 60.13. Opacity readings in excess of the standards outlined in Special Condition No. 2 or No. 16 are reportable under 30 TAC § 101.201, Subchapter F, Division 1, Emissions Event Reporting and Recordkeeping Requirements.
11. The holder of this permit will monitor sulfur dioxide (SO₂) from the exhaust stream of Unit 1 with a CEMS, operated in accordance with 40 CFR § 75.10.
12. Following a period not to exceed 180 days following the October 16, 2010 completion of the NO_x Improvement Project and continuing for a period of five years, the holder of this permit shall annually sample CO in the stack gases from EPN HS-1. Sampling methods shall be using relevant methods outlined in 40 CFR Part 60, Appendix A, Test Methods 1, 1A, 10, 10A and/or 10B. Alternative sampling methods may be used if approved, prior to testing, by the TCEQ Regional Director. Testing results, in pounds per hour of CO, shall be reported to the TCEQ Regional Director within 30-days following each test.
13. If any emission monitor fails to meet specified performance, it shall be repaired or replaced immediately, but no later than seven days after it was first detected by any employee at the facility, unless written permission is obtained from the TCEQ which allows for a longer repair/replacement time. The holder of this permit shall develop an operation and maintenance program (including stocking necessary spare parts) to ensure that the continuous monitors are available as required.

Recordkeeping

14. The following records shall be kept at the plant for the life of the permit and made available at the request of personnel from the TCEQ, EPA, or any air pollution control agency with jurisdiction.
 - A. A copy of this permit.
 - B. Permit application and subsequent representations submitted to the TCEQ.
 - C. A complete copy of the testing reports and records of the initial performance testing.
 - D. Stack sampling results, other air emissions testing, fuel quality analysis, and plant fuel flow monitoring that may be conducted on units authorized under this permit and subsequent modifications after the October 15, 2002 renewal of this permit.
15. The following records shall be retained for a minimum period of five years and made available at the request of personnel from the TCEQ, EPA, or any air pollution control agency with jurisdiction.
 - A. CEMS and COMS raw data and test results in compliance with Special Condition Nos. 9, 10, and 11.
 - B. Records to identify periods of planned MSS.
 - C. Records of opacity measurements by the COMS for the duration of the planned MSS activities.
 - D. Records to show that the work practices in Special Condition No. 21 are followed during the planned MSS activities.

Maintenance, Startup, and Shutdown

Special Conditions
Permit Numbers 1388 and PSDTX631M1
Page 4

16. Opacity greater than 20 percent from EPN HS-1 is authorized during planned MSS when the permit holder complies with the duration limitations and applicable work practices as follows.
 - A. The applicable work practices of Special Condition No. 21.
 - B. Periods of opacity greater than 20 percent from EPN HS-1 from planned MSS authorized by this Special Condition shall not exceed 144 hours in a calendar year.
 - C. For periods of MSS other than those subject to Paragraphs A. and B. of this Special Condition, 30 TAC §§ 111.111, 111.153, and 30 TAC § 101, Subchapter F apply.
17. This permit authorizes the emissions from the planned MSS activities listed in Attachment A [Inherently Low Emitting (ILE) maintenance activities], Attachment B (non-ILE maintenance activities), and the MAERT attached to this permit.
18. When a planned maintenance activity identified in Attachment B is associated with a VOC liquid storage facility and may result in VOC emissions from that facility, the permit holder shall not open that facility to the atmosphere in connection with the planned maintenance activity until the VOC liquids are removed from that facility to the maximum extent practicable.
19. No vacuum pump on a vacuum truck that is used to move solids (such as ash) during planned maintenance activities shall be operated unless the vacuum system exhaust is routed to a filtering system.
20. Vacuum trucks that are used to move liquids during planned maintenance activities shall utilize submerged loading.
21. The holder of this permit shall minimize emissions during planned MSS activities by operating the facility and associated air pollution control equipment in accordance with good air pollution control practices, safe operating practices, and protection of the facility, including the following work practices:
 - A. Comply with the boiler and electrostatic precipitator (ESP) manufacturer's operating procedures or the permittee's written standard operating procedures manual during planned MSS and operate in a manner consistent with those procedures to minimize opacity. The portion of this condition pertaining to the ESP no longer applies after December 31, 2024, per the requirements of Agreed Order Docket No. 2020-0982-MIS. **(05/21)**
 - B. When solid fuel is being burned, place the ESP into service as soon as practical during planned startups, but not longer than the durations identified in Special Condition No. 22, and keep the ESP in service while the unit is burning solid fuel. This condition no longer applies after December 31, 2024, per the requirements of Agreed Order Docket No. 2020-0982-MIS. **(05/21)**
 - C. The manufacturer's operating procedures or permittee's written standard operating procedure manual shall be located on-site and be available to the TCEQ regional investigator.
22. Emissions during planned startup and shutdown activities will be minimized by limiting the duration of operation in planned startup and shutdown mode as follows:

Special Conditions
Permit Numbers 1388 and PSDTX631M1
Page 5

- A. A planned startup of the Unit 1 steam generator is defined as the period that begins when a set of fans are placed into service and ends when the unit reaches a sustained load of 150 megawatts. In the event that the fans are already running for maintenance purposes as allowed in Attachment B of this permit, startup begins when main gas firing is commenced. In addition:
 - (1) A planned startup shall not exceed 48 hours after main gas firing has commenced, except as allowed in Special Condition No. 22.A.(2).
 - (2) An extended planned startup is defined as a startup that lasts more than 48 hours after main gas firing has commenced. The total amount of time that extended startups exceed 48 hours shall not exceed 300 hours on an annual basis.
 - B. A planned shutdown of the Unit 1 steam generator shall not exceed 36 hours. A planned shutdown is defined as the period that begins when the generator breaker is opened or at the point of main fuel no longer being fired in the boiler, whichever is earlier. Shutdown ends when the generator breaker is open and main fuel is no longer being fired in the boiler.
 - C. For purposes of counting startup and shutdown hours, any clock hour that includes one or more minutes of startup or shutdown activity is counted as one hour of startup or shutdown activity.
23. Compliance with the emissions limits for planned MSS activities identified in the MAERT attached to this permit may be demonstrated as follows:
- A. For each pollutant emitted during planned ILE maintenance activities, the permit holder shall annually confirm the continued validity of the estimated potential to emit represented in the permit application for all ILE planned maintenance activities. The total emissions from all planned ILE maintenance activities identified in Attachment A of this permit shall be considered to be no more than the estimated potential to emit for those activities that are represented in the permit application.
 - B. For each pollutant emitted during planned non-ILE maintenance activities identified in Attachment B of this permit, the permit holder shall do the following for each calendar month.
 - (1) Determine the total emissions of the pollutant from such non-ILE planned maintenance activities in accordance with Special Condition No. 24.
 - (2) Once monthly emissions have been determined in accordance with Special Condition No. 23.B.(1) for 12 months after the MSS permit amendment has been issued, the permit holder shall compare the sum of the rolling 12-month emissions for the pollutant for all non-ILE planned maintenance activities to the annual emissions limit for the pollutant in the MAERT.
 - (3) This excludes the emissions associated with the combustion unit tuning/optimization activities, which are included in the normal operation emission limits for EPN HS-1 in the MAERT.
24. The permit holder shall determine the emissions during planned MSS activities for use in Special Condition No. 23 as follows:

Special Conditions
Permit Numbers 1388 and PSDTX631M1
Page 6

- A. For each pollutant whose emissions during normal facility operations are measured with a CEMS that has been certified to measure the pollutant's emissions over the entire range of a planned MSS activity, the permit holder shall measure the emissions of the pollutant during the planned MSS activity using the CEMS.
- B. For each pollutant not described in Special Condition No. 24.A., the permit holder shall calculate the pollutant's emissions during all occurrences of each type of planned MSS activity for each calendar month using the frequency of the planned MSS activity identified in work orders or equivalent records and the emissions of the pollutant during the planned MSS activity as represented in the planned MSS permit application. In lieu of using the emissions of the pollutant during the planned MSS activity as represented in the planned MSS permit application to calculate such emissions, the permit holder may determine the emissions of the pollutant during the planned MSS activity using an appropriate method, including but not limited to, any of the methods described in paragraphs 1 through 3 below, provided that the permit holder maintains appropriate records supporting such determination:
 - (1) Use of emission factor(s), facility-specific parameter(s), and/or engineering knowledge of the facility's operations.
 - (2) Use of emissions data measured (by a CEMS or during emissions testing) during the same type of planned MSS activity occurring at or on a similar facility, and correlation of that data with the facility's relevant operating parameters, including, but not limited to, electric load, temperature, fuel input, and fuel sulfur content.
 - (3) Use of emissions testing data collected during a planned MSS activity occurring at or on the facility, and correlation of that data with the facility's relevant operating parameters, including, but not limited to, electric load, temperature, fuel input, and fuel sulfur content.
25. With the exception of the emission limits in the MAERT attached to this permit, the permit conditions relating to planned MSS activities do not become effective until 180 days after issuance of the permit amendment dated April 20, 2012.

Additional Authorizations

26. The following projects and facilities authorized by Permit by Rule (PBR) and Standard Permit (SP) are listed here for reference purposes only.

Project/Facility	Authorization	Registration No.
Fluorescent Bulb Crusher	30 TAC § 106.262 (PBR)	84932
ESP Improvements	Pollution Control Project (SP)	93027
Substitute nat. gas for coal	Pollution Control Project (SP)	108024

Date: May 20, 2021

Permit Numbers 1388 and PSDTX631M1

Attachment A

Inherently Low Emitting Maintenance Activities (ILEs)					
Planned Maintenance Activity	Emissions				
	NO _x	CO	VOC	PM	SO ₂
Miscellaneous particulate filter maintenance1				X	
Degassing for maintenance of storage vessels storing material with low vapor pressure (≤ 0.5 psia)			X		
Degassing for maintenance of storage vessels storing gasoline or other materials with high vapor pressure (> 0.5 psia) that does not require clearing the vessel to allow entry of personnel			X		
Boiler General Maintenance2				X	
Inspection, repair, replacement, adjusting, testing, and calibration of analytical equipment, process instruments including sight glasses, meters, gauges, CEMS, and PEMS	X	X	X		X
Material handling system maintenance3				X	
Small equipment and fugitive component repair/replacement in VOC service4			X		
PM control device maintenance - unit offline				X	
Management of sludge from pits, ponds, sumps, and water conveyances5			X		

Date: May 20, 2021

1 Includes, but is not limited to: filters, and coal handling filters.

2 Includes, but is not limited: pre-heater basket handling and maintenance, refractory change out, fan maintenance/balancing, damper/air heater/soot blower maintenance, and any other general boiler maintenance that does not exceed the worst-case emission representation in the application.

3 Material handling equipment includes, but is not limited to: silos, transport systems, coal bunkers, coal crushing equipment, coal handling, nuvafeeders, hoppers, and sludge handling systems. Materials handled include coal, ash, limestone, soda ash, and lime. This condition no longer applies after December 31, 2024, per the requirements of Agreed Order Docket No. 2020-0982-MIS. (05/21)

4 Includes, but is not limited to: (i) repair/replacement of pumps/compressors/valves/pipes/flanges/transport lines/filters/screens in natural gas/fuel oil/diesel oil/ammonia/lube oil/gasoline service, (ii) vehicle/mobile equipment that may involve small VOC emissions such as oil changes/transmission service/hydraulic system service.

5 Includes, but is not limited to: management by vacuum truck/dewatering of materials in open pits/ponds/sumps/tanks/other closed or open vessels, and water based washing. Materials removed by vacuum truck include water and sediment mixtures containing miscellaneous VOCs such as diesel, lube oil, and other waste oils.

Permit Numbers 1388 and PSDTX631M1

Attachment B

Planned Maintenance Activity	EPN	Emissions				
		NO _x	CO	VOC	PM	SO ₂
Gaseous Fuel Venting ⁶	MSS-FUG			X		
Combustion optimization ⁷	HS-1	X	X	X	X	X
Vacuum truck solids loading ⁸	MSS-FUG				X	
Vacuum truck solids unloading	MSS-FUG				X	
PM control device - unit online	HS-1				X	
Use of fans during maintenance - unit offline	HS-1				X	

Date: February 13, 2014

⁶ Includes, but is not limited to: venting prior to pipeline pigging and meter proving.

⁷ Includes, but is not limited to: leak/operability checks, troubleshooting, and seasonal tuning.

⁸ Includes, but is not limited to: site-wide solids (ash) vacuuming operations (e.g. material handling baghouses/ ESP/ ducts/furnace/loop seals/stripper coolers/airlocks).

Emission Sources - Maximum Allowable Emission Rates

Permit Numbers 1388 and PSDTX631M1

This table lists the maximum allowable emission rates and all sources of air contaminants on the applicant's property covered by this permit. The emission rates shown are those derived from information submitted as part of the application for permit and are the maximum rates allowed for these facilities, sources, and related activities. Any proposed increase in emission rates may require an application for a modification of the facilities covered by this permit.

Air Contaminants Data

Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates	
			lbs/hour	TPY (4)
HS-1	Harrington Station Unit No. 1 369 MW Coal-Fired Electric Generating Unit (5)	SO ₂	4,293	15,080
		CO	1,634	5,247
		NO _x	1,452	3,975
		PM	359	1,257
		PM ₁₀	359	1,257
		PM _{2.5}	322	1,128
		VOC	13.3	58.3
		Fluoride (as HF)	19	67.8
		Hydrogen Chloride	10.4	45.6
		Beryllium	0.0111	0.04
HS-2	Harrington Station Unit No. 1 Fly Ash Bin Vent Baghouse	PM	0.17	0.76
		PM ₁₀	0.08	0.36
		PM _{2.5}	0.01	0.05
HS-2A	Ash Handling System Pump A Discharge	PM	0.08	0.36
		PM ₁₀	0.08	0.36
		PM _{2.5}	0.04	0.19
HS-2B	Ash Handling System Pump B Discharge	PM	0.08	0.36
		PM ₁₀	0.08	0.36
		PM _{2.5}	0.04	0.19

Permit Numbers 1388 and PSDTX631M1
Page 2

Emission Sources - Maximum Allowable Emission Rates

Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates	
			lbs/hour	TPY (4)
MSS-FUG	Maintenance, Startup, and Shutdown (MSS) Fugitives	SO ₂	<0.01	<0.01
		NO _x	<0.01	<0.01
		PM	7.39	4.95
		PM ₁₀	1.91	1.19
		PM _{2.5}	0.29	0.18
		VOC	33.50	0.42

- (1) Emission point identification - either specific equipment designation or emission point number from plot plan.
- (2) Specific point source name. For fugitive sources, use area name or fugitive source name.
- (3) VOC - volatile organic compounds as defined in Title 30 Texas Administrative Code (TAC) § 101.1
NO_x - total oxides of nitrogen
SO₂ - sulfur dioxide
PM - particulate matter emissions, as defined in Title 30 TAC § 101.1, including PM₁₀ and PM_{2.5}
PM₁₀ - particulate matter emissions equal to or less than 10 microns in diameter, including PM_{2.5}
PM_{2.5} - direct particulate matter emissions equal to or less than 2.5 microns in diameter
CO - carbon monoxide
HF - hydrogen fluoride
- (4) Compliance with annual emission limits (tons per year) is based on a 12-month rolling period.
- (5) The lbs/hour and tpy emission limits specified in the MAERT for this facility include emissions from the facility during both normal operations and planned MSS activities.

Date: February 13, 2014

Common Acronyms in Air Permits

[°]C = Temperature in degrees Celsius
[°]F = Temperature in degrees Fahrenheit
[°]K = Temperature in degrees Kelvin
 μg = microgram
 $\mu\text{g}/\text{m}^3$ = microgram per cubic meter
 acfm = actual cubic feet per minute
 AMOC = alternate means of control
 AOS = alternative operating scenario
 AP-42 = Air Pollutant Emission Factors, 5th edition
 APD = Air Permits Division
 API = American Petroleum Institute
 APWL = air pollutant watch list
 BPA = Beaumont/ Port Arthur
 BACT = best available control technology
 BAE = baseline actual emissions
 bbl = barrel
 bbl/day = barrel per day
 bhp = brake horsepower
 BMP = best management practices
 Btu = British thermal unit
 Btu/scf = British thermal unit per standard cubic foot or feet
 CAA = Clean Air Act
 CAM = compliance-assurance monitoring
 CEMS = continuous emissions monitoring systems
 cfm = cubic feet (per) minute
 CFR = Code of Federal Regulations
 CN = customer ID number
 CNG = compressed natural gas
 CO = carbon monoxide
 COMS = continuous opacity monitoring system
 CPMS = continuous parametric monitoring system
 DFW = Dallas/ Fort Worth (Metroplex)
 DE = destruction efficiency
 DRE = destruction and removal efficiency
 dscf = dry standard cubic foot or feet
 dscfm = dry standard cubic foot or feet per minute
 ED = (TCEQ) Executive Director
 EF = emissions factor
 EFR = external floating roof tank
 EGU = electric generating unit
 EI = Emissions Inventory
 ELP = El Paso
 EPA = (United States) Environmental Protection Agency
 EPN = emission point number
 ESL = effects screening level
 ESP = electrostatic precipitator
 FCAA = Federal Clean Air Act
 FCCU = fluid catalytic cracking unit
 FID = flame ionization detector
 FIN = facility identification number
 ft = foot or feet
 ft/sec = foot or feet per second
 g = gram
 gal/wk = gallon per week
 gal/yr = gallon per year
 GLC = ground level concentration
 $\text{GLC}_{\text{max}} = \text{maximum (predicted)}$ ground-level concentration

gpm = gallon per minute
 gr/1000scf = grain per 1000 standard cubic feet
 gr/dscf = grain per dry standard cubic feet
 H_2CO = formaldehyde
 H_2S = hydrogen sulfide
 H_2SO_4 = sulfuric acid
 HAP = hazardous air pollutant as listed in § 112(b) of the Federal Clean Air Act or Title 40 Code of Federal Regulations Part 63, Subpart C
 HC = hydrocarbons
 HCl = hydrochloric acid, hydrogen chloride
 Hg = mercury
 HGB = Houston/Galveston/Brazoria
 hp = horsepower
 hr = hour
 IFR = internal floating roof tank
 $\text{in H}_2\text{O}$ = inches of water
 in Hg = inches of mercury
 IR = infrared
 ISC3 = Industrial Source Complex, a dispersion model
 ISCST3 = Industrial Source Complex Short-Term, a dispersion model
 K = Kelvin; extension of the degree Celsius scaled-down to absolute zero
 LACT = lease automatic custody transfer
 LAER = lowest achievable emission rate
 lb = pound
 hp = horsepower
 hr = hour lb/day = pound per day
 lb/hr = pound per hour
 lb/MMBtu = pound per million British thermal units
 LDAR = Leak Detection and Repair (Requirements)
 LNG = liquefied natural gas
 LPG = liquefied petroleum gas
 LT/D = long ton per day
 m = meter
 m^3 = cubic meter
 m/sec = meters per second
 MACT = maximum achievable control technology
 MAERT = Maximum Allowable Emission Rate Table
 MERA = Modeling and Effects Review Applicability
 mg = milligram
 mg/g = milligram per gram
 mL = milliliter
 MMBtu = million British thermal units
 MMBtu/hr = million British thermal units per hour
 MSDS = material safety data sheet
 MSS = maintenance, startup, and shutdown
 MW = megawatt
 NAAQS = National Ambient Air Quality Standards
 NESHAP = National Emission Standards for Hazardous Air Pollutants
 NGL = natural gas liquids
 NNSR = nonattainment new source review
 NO_x = total oxides of nitrogen
 NSPS = New Source Performance Standards
 PAL = plant-wide applicability limit
 PBR = Permit(s) by Rule

Pollution Control Project Permits

PCP = pollution control project

PEMS = predictive emission monitoring system

PID = photo ionization detector

PM = periodic monitoring

PM = total particulate matter, suspended in the atmosphere, including PM₁₀ and PM_{2.5}, as represented

PM_{2.5} = particulate matter equal to or less than 2.5 microns in diameter

PM₁₀ = total particulate matter equal to or less than 10 microns in diameter, including PM_{2.5}, as represented

POC = products of combustion

ppb = parts per billion

ppm = parts per million

ppmv = parts per million (by) volume

psia = pounds (per) square inch, absolute

psig = pounds (per) square inch, gage

PTE = potential to emit

RA = relative accuracy

RATA = relative accuracy test audit

RM = reference method

RVP = Reid vapor pressure

scf = standard cubic foot or feet

scfm = standard cubic foot or feet (per) minute

SCR = selective catalytic reduction

SIL = significant impact levels

SNCR = selective non-catalytic reduction

SO₂ = sulfur dioxide

SOCMI = synthetic organic chemical manufacturing industry

SRU = sulfur recovery unit

TAC = Texas Administrative Code

TCAA = Texas Clean Air Act

TCEQ = Texas Commission on Environmental Quality

TD = Toxicology Division

TLV = threshold limit value

TMDL = total maximum daily load

tpd = tons per day

tpy = tons per year

TVP = true vapor pressure

VOC = volatile organic compounds as defined in Title 30

Texas Administrative Code § 101.1

VRU = vapor recovery unit or system

Jon Niermann, *Chairman*

Emily Lindley, *Commissioner*

Bobby Janecka, *Commissioner*

Toby Baker, *Executive Director*



TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

Protecting Texas by Reducing and Preventing Pollution

May 20, 2021

MR DAVID LOW
GENERAL MANAGER, POWER GENERATION
SOUTHWESTERN PUBLIC SERVICE COMPANY
790 S BUCHANAN ST
AMARILLO TX 79101-2510

Re: Permit Alteration
Permit Number: 5129
Expiration Date: February 13, 2027
Southwestern Public Service Company
Harrington Station Units 2 And 3
Amarillo, Potter County
Regulated Entity Number: RN100224849
Customer Reference Number: CN601481336
Associated Permit Number: PSDTX017M2

Dear Mr. Low:

Southwestern Public Service Company has requested alteration of the conditions of the above-referenced permit.

In accordance with Title 30 Texas Administrative Code §116.116(c), Permit Number 5129 is altered. Enclosed are the new general conditions and altered special conditions. Please attach these to your permit.

All preconstruction authorizations (including authorization for emissions of greenhouse gases, if applicable) should be obtained prior to start of construction.

If you need further information or have any questions, please contact Ms. Andrea Cazares at (512) 239-1292 or write to the Texas Commission on Environmental Quality, Office of Air, Air Permits Division, MC-163, P.O. Box 13087, Austin, Texas 78711-3087.

Sincerely,

A handwritten signature of Samuel Short, followed by a solid horizontal line.

Samuel Short, Deputy Director
Air Permits Division
Office of Air
Texas Commission on Environmental Quality

Mr. David Low
Page 2
May 20, 2021

Re: Permit Number: 5129

Enclosure

cc: Air Section Manager, Region 1 - Amarillo
Air Permits Section Chief, New Source Review Section (6PD-R), U.S. Environmental Protection Agency, Region 6, Dallas

Project Number: 327110



**Texas Commission on Environmental Quality
Air Quality Permit**

*A Permit Is Hereby Issued To
Southwestern Public Service Company
Authorizing the Construction and Operation of
Harrington Station Units 2 And 3
Located at Amarillo, Potter County, Texas
Latitude 35° 17' 55" Longitude -101° 44' 46"*

Permits: 5129 and PSDTX017M2

Revision Date: May 20, 2021

Expiration Date: February 13, 2027



Troy Baker
For the Commission

1. **Facilities covered by this permit shall be constructed and operated as specified in the application for the permit.** All representations regarding construction plans and operation procedures contained in the permit application shall be conditions upon which the permit is issued. Variations from these representations shall be unlawful unless the permit holder first makes application to the Texas Commission on Environmental Quality (commission) Executive Director to amend this permit in that regard and such amendment is approved. [Title 30 Texas Administrative Code (TAC) Section 116.116 (30 TAC § 116.116)]¹
2. **Voiding of Permit.** A permit or permit amendment is automatically void if the holder fails to begin construction within 18 months of the date of issuance, discontinues construction for more than 18 months prior to completion, or fails to complete construction within a reasonable time. Upon request, the executive director may grant an 18-month extension. Before the extension is granted the permit may be subject to revision based on best available control technology, lowest achievable emission rate, and netting or offsets as applicable. One additional extension of up to 18 months may be granted if the permit holder demonstrates that emissions from the facility will comply with all rules and regulations of the commission, the intent of the Texas Clean Air Act (TCAA), including protection of the public's health and physical property; and (b)(1)the permit holder is a party to litigation not of the permit holder's initiation regarding the issuance of the permit; or (b)(2) the permit holder has spent, or committed to spend, at least 10 percent of the estimated total cost of the project up to a maximum of \$5 million. A permit holder granted an extension under subsection (b)(1) of this section may receive one subsequent extension if the permit holder meets the conditions of subsection (b)(2) of this section. [30 TAC § 116.120]
3. **Construction Progress.** Start of construction, construction interruptions exceeding 45 days, and completion of construction shall be reported to the appropriate regional office of the commission not later than 15 working days after occurrence of the event. [30 TAC § 116.115(b)(2)(A)]
4. **Start-up Notification.** The appropriate air program regional office shall be notified prior to the commencement of operations of the facilities authorized by the permit in such a manner that a representative of the commission may be present. The permit holder shall provide a separate notification for the commencement of operations for each unit of phased construction, which may involve a series of units commencing operations at different times. Prior to operation of the facilities authorized by the permit, the permit holder shall identify the source or sources of allowances to be utilized for compliance with Chapter 101, Subchapter H, Division 3 of this title (relating to Mass Emissions Cap and Trade Program). [30 TAC § 116.115(b)(2)(B)]
5. **Sampling Requirements.** If sampling is required, the permit holder shall contact the commission's Office of Compliance and Enforcement prior to sampling to obtain the proper data forms and procedures. All sampling and testing procedures must be approved by the executive director and coordinated with the regional representatives of the commission. The permit holder is also responsible for providing sampling facilities and conducting the sampling operations or contracting with an independent sampling consultant. [30 TAC § 116.115(b)(2)(C)]
6. **Equivalency of Methods.** The permit holder must demonstrate or otherwise justify the equivalency of emission control methods, sampling or other emission testing methods, and monitoring methods proposed as alternatives to methods indicated in the conditions of the permit. Alternative methods shall be applied for in writing and must be reviewed and approved by the executive director prior to their use in fulfilling any requirements of the permit. [30 TAC § 116.115(b)(2)(D)]
7. **Recordkeeping.** The permit holder shall maintain a copy of the permit along with records containing the information and data sufficient to demonstrate compliance with the permit, including production records and

operating hours; keep all required records in a file at the plant site. If, however, the facility normally operates unattended, records shall be maintained at the nearest staffed location within Texas specified in the application; make the records available at the request of personnel from the commission or any air pollution control program having jurisdiction in a timely manner; comply with any additional recordkeeping requirements specified in special conditions in the permit; and retain information in the file for at least two years following the date that the information or data is obtained. [30 TAC § 116.115(b)(2)(E)]

1. **Maximum Allowable Emission Rates.** The total emissions of air contaminants from any of the sources of emissions must not exceed the values stated on the table attached to the permit entitled "Emission Sources--Maximum Allowable Emission Rates." [30 TAC § 116.115(b)(2)(F)]¹
2. **Maintenance of Emission Control.** The permitted facilities shall not be operated unless all air pollution emission capture and abatement equipment is maintained in good working order and operating properly during normal facility operations. The permit holder shall provide notification in accordance with 30 TAC §101.201, 101.211, and 101.221 of this title (relating to Emissions Event Reporting and Recordkeeping Requirements; Scheduled Maintenance, Startup, and Shutdown Reporting and Recordkeeping Requirements; and Operational Requirements). [30 TAC§ 116.115(b)(2)(G)]
3. **Compliance with Rules.** Acceptance of a permit by an applicant constitutes an acknowledgment and agreement that the permit holder will comply with all rules and orders of the commission issued in conformity with the TCAA and the conditions precedent to the granting of the permit. If more than one state or federal rule or regulation or permit condition is applicable, the most stringent limit or condition shall govern and be the standard by which compliance shall be demonstrated. Acceptance includes consent to the entrance of commission employees and agents into the permitted premises at reasonable times to investigate conditions relating to the emission or concentration of air contaminants, including compliance with the permit. [30 TAC § 116.115(b)(2)(H)]
4. **This** permit may not be transferred, assigned, or conveyed by the holder except as provided by rule. [30 TAC § 116.110(e)]
5. **There** may be additional special conditions attached to a permit upon issuance or modification of the permit. Such conditions in a permit may be more restrictive than the requirements of Title 30 of the Texas Administrative Code. [30 TAC § 116.115(c)]
6. **Emissions** from this facility must not cause or contribute to "air pollution" as defined in Texas Health and Safety Code (THSC) §382.003(3) or violate THSC § 382.085. If the executive director determines that such a condition or violation occurs, the holder shall implement additional abatement measures as necessary to control or prevent the condition or violation.
7. **The** permit holder shall comply with all the requirements of this permit. Emissions that exceed the limits of this permit are not authorized and are violations of this permit.¹

¹ Please be advised that the requirements of this provision of the general conditions may not be applicable to greenhouse gas emissions.

Special Conditions

Permit Numbers 5129 and PSDTX017M2

Emission Standards and Fuel Specifications

1. Compliance with the annual emissions limits, as specified in the attached table entitled "Emission Sources - Maximum Allowable Emission Rates," is based on a consecutive 12-month period rather than the calendar year.
2. A copy of this permit shall be kept at the plant site and made immediately available at the request of personnel from the Texas Commission on Environmental Quality (TCEQ) or any air pollution control agency. In addition, the holder of this permit shall identify all equipment at the property with the potential of emitting air contaminants that is authorized under this permit. Permitted emission points shall be identified by the emission point numbering on the maximum allowable emission rates table (MAERT).
3. Fuels to be fired in the Unit 2 and Unit 3 Boilers are limited to:
 - A. Coal or mixtures of coals with a maximum as-fired sulfur content of 0.6 lb/MMBtu. (This condition no longer applies after December 31, 2024, per the requirements of Agreed Order Docket No. 2020-0982-MIS). **(05/21)**
 - B. Pipeline-quality natural gas with a maximum sulfur content of 20 grains of total sulfur per 100 dry standard cubic feet.
 - C. The use of any other fuel shall require authorization from the TCEQ. **(10/08)**
4. The firing rate of the Unit 2 and 3 Boilers (Emission Point Nos. 2-1 and 3-1) shall be limited to 3,830 and 3,870 MMBtu/hr, respectively, on an hourly average. **(10/08)**
5. As represented by the applicant, the following work and design practices will be maintained:
 - A. During fly ash unloading, the truck drop points will be enclosed by a shroud with the displace air routed back into the silo.
 - B. The vacuum pump will be preceded by a baghouse and an in-line cartridge filter. The vacuum pump will be equipped with a water jacket.
 - C. The bin vent on the fly ash silo will be equipped with a reverse pulse jet cleaning system.
6. The records required in Special Condition Nos. 8 and 9 shall constitute the method of demonstrating compliance with the limits specified in this permit.

Federal Regulation Applicability

7. The Unit Nos. 2 and 3 Boilers shall comply with all applicable requirements of Subparts A, D, and Y of Title 40 Code of Federal Regulations Part 60 (40 CFR Part 60) and with the applicable requirements of 40 CFR Part 75. If any condition of this permit is more stringent than the regulations so incorporated, then for the purposes of complying with this permit, the permit condition shall govern and be the standard by which compliance shall be demonstrated. **(PSD)** **(10/08)**

Determination of Compliance With CO Emissions

Special Conditions
Permit Numbers 5129 and PSDTX017M2
Page 2

8. The holder of this permit shall perform stack sampling to establish the actual mass quantities of carbon monoxide (CO) being emitted into the atmosphere from Emission Point No. (EPN) 2-1. Sampling shall be conducted by appropriate procedures in accordance with the appropriate EPA Methods 10, 10B, or by other method approved by the Regional Director of the applicable TCEQ Regional Office. This stack sampling shall occur within six (6) months of the return to routine operations following completion of the project authorized by amendment approved October, 2008. The TCEQ Regional Office shall be notified within 15 days prior to the sampling and will be given the opportunity to observe the sampling procedure. This sampling must be performed at the permit holder's expense and results reported within 30 days to the TCEQ Region 1 Office. **(10/08)**

Recordkeeping Requirements

9. The following records shall be kept at the plant for the life of the permit. All records required in this permit shall be made available at the request of personnel from the TCEQ or any air pollution control agency with jurisdiction. **(03/07)**
 - A. A copy of this permit.
 - B. Permit renewal application dated November 10, 2006.
 - C. Stack sampling results or other testing conducted on units authorized under this permit after the date of issuance of this renewal.
 - D. The permit holder shall keep records to identify: periods of planned maintenance, startup and shutdown (MSS); the opacity measured by the continuous opacity monitoring system (COMS) for the duration of the planned MSS activities; and that the work practices in Special Condition Nos. 12 through 15 are followed during the planned MSS activities. **(05/12)**
10. The following records shall be maintained at the plant site by the holder of this permit, and data shall be retained for at least five years following the date the data is obtained.
 - A. Records of the hours of operation;
 - B. Records of weekly coal Btu testing; (This condition no longer applies after December 31, 2024, per the requirements of Agreed Order Docket No. 2020-0982-MIS). **(05/21)**
 - C. Records of monthly gas Btu testing;
 - D. Records of hourly electrical generation; and
 - E. Records of monthly fuel use by fuel type.

Maintenance, Startup, and Shutdown (MSS)

11. This permit authorizes the emissions from the MSS activities listed in Attachment A, Attachment B, and the MAERT attached to this permit. Attachment A identifies the inherently low emitting (ILE) planned maintenance activities that this permit authorizes to be performed. Attachment B identifies

Special Conditions

Permit Numbers 5129 and PSDTX017M2

Page 3

the planned maintenance activities that are non-ILE planned maintenance activities that this permit authorizes to be performed. **(05/12)**

12. When a planned maintenance activity identified in Attachment B is associated with a volatile organic compound (VOC) liquid storage facility and may result in VOC emissions from that facility, the permit holder shall not open that facility to the atmosphere in connection with the maintenance activity until the VOC liquids are removed from that facility to the maximum extent practicable. **(05/12)**
13. No vacuum pump on a vacuum truck that is used to move solids (such as ash) during planned maintenance activities shall be operated unless the vacuum system exhaust is routed to a filtering system. **(05/12)**
14. The holder of this permit shall minimize emissions during planned MSS activities by operating the facility and associated air pollution control equipment in accordance with good air pollution control practices, safe operating practices, and protection of the facility. **(05/12)**
15. Emissions during planned startup and shutdown activities will be minimized by limiting the duration of operation in planned startup and shutdown mode as follows: **(05/12)**
 - A. A planned startup of either of the two electric generating facilities (EGF) with EPNs 2-1 or 3-1 is defined as the period that begins when a set of fans are placed into service and ends when the unit reaches a sustained load of more than 150 Megawatts. In the event that the fans are already running for maintenance purposes as allowed in Attachment A, startup begins when main gas firing has commenced.
 - (1) A planned startup of either EGF shall not exceed 48 hours after main gas firing has commenced, except as allowed in Special Condition No. 15A(2).
 - (2) An extended planned startup is defined as a startup that lasts more than 48 hours after main gas firing has commenced. The total amount of time the extended startups exceed 48 hours at each boiler shall not exceed a combined total of 600 hours for both solid fuel fired boilers at the facility on an annual basis.
 - B. A planned shutdown of either EGF with EPNs 2-1 or 3-1 shall not exceed 36 hours and is defined as:
 - (1) the period that begins when the generator breaker is opened and ends when the main fuel is no longer being fired in the boiler; or
 - (2) the period that begins when the main fuel is no longer being fired in the boiler and ends when the generator breaker is opened.
16. Compliance with the emissions limits for planned MSS activities identified in the MAERT attached to this permit may be demonstrated as follows. **(05/12)**

Special Conditions

Permit Numbers 5129 and PSDTX017M2

Page 4

A For each pollutant emitted during ILE planned maintenance activities, the permit holder shall annually confirm the continued validity of the estimated potential to emit represented in the permit application for all ILE planned maintenance activities. The total emissions from all ILE planned maintenance activities (See Attachment A) shall be considered to be no more than the estimated potential to emit for those activities that are represented in the permit application.

B. For each pollutant emitted during non-ILE planned maintenance activities (See Attachment B) the permit holder shall do the following for each calendar month.

(1) Determine the total emissions of the pollutant from such non-ILE planned maintenance activities in accordance with Special Condition No. 17.

(2) Once monthly emissions have been determined in accordance with Special Condition No 16B(1) for 12 months after the MSS permit amendment has been issued, the permit holder shall compare the sum of the rolling 12-month emissions for the pollutant for all non-ILE planned maintenance activities to the annual emissions limit for the pollutant in the MAERT.

(3) This excludes the emissions associated with the combustion unit tuning/optimization activities, which are included in the normal operation limits for EPN 2-1 and 3-1 as listed in the MAERT.

17. The permit holder shall determine the emissions during planned MSS activities for use in Special Condition No. 16 as follows. **(05/12)**

A. For each pollutant whose emissions during normal facility operations are measured with a CEMS that has been certified to measure the pollutant's emissions over the entire range of a planned MSS activity, the permit holder shall measure the emissions of the pollutant during the planned MSS activity using the CEMS.

B. For each pollutant not described in Special Condition No. 17A, the permit holder shall calculate the pollutant's emissions during all occurrences of each type of planned MSS activity for each calendar month using the frequency of the planned MSS activity identified in work orders or equivalent records and the emissions of the pollutant during the planned MSS activity as represented in the planned MSS permit application. In lieu of using the emissions of the pollutant during the planned MSS activity as represented in the planned MSS permit application to calculate such emissions, the permit holder may determine the emissions of the pollutant during the planned MSS activity using an appropriate method, including but not limited to, any of the methods described in paragraphs 1 through 3 below, provided that the permit holder maintains appropriate records supporting such determination:

(1) Use of emission factor(s), facility-specific parameter(s), and/or engineering knowledge of the facility's operations.

(2) Use of emissions data measured (by a CEMS or during emissions testing) during the same type of planned MSS activity occurring at or on a similar facility, and correlation of that data with the facility's relevant operating parameters, including, but not limited to, electric load, temperature, fuel input, and fuel sulfur content.

Special Conditions
Permit Numbers 5129 and PSDTX017M2
Page 5

- (3) Use of emissions testing data collected during a planned MSS activity occurring at or on the facility, and correlation of that data with the facility's relevant operating parameters, including, but not limited to, electric load, temperature, fuel input, and fuel sulfur content.
- 18. With the exception of the emission limits in the MAERT attached to this permit, the permit conditions relating to planned MSS activities do not become effective until November 21, 2012.
(05/12)

Date: May 20, 2021

ATTACHMENT A
Permit Numbers 5129 and PSDTX017M2
Inherently Low Emitting (ILE) Planned Maintenance Activities

Planned Maintenance Activity	Emissions				
	VOC	NOx	CO	PM	SO ₂
Miscellaneous particulate filter maintenance ¹				x	
Degassing for maintenance of storage vessels storing material with vapor pressure <0.5 psia	x				
Boiler general maintenance ²				x	
Inspection, repair, replacement, adjusting, testing, and calibration of analytical equipment, process instruments including sight glasses, meters, gauges, CEMS, and PEMS.	x	x			x
Material handling system maintenance ³				x	
Small equipment and fugitive component repair/replacement in VOC service ⁴	x				
PM control device maintenance – unit offline				x	
Use of fans during maintenance - unit offline				x	

Notes for Attachment A:

1. Includes, but is not limited to, baghouse filters, coal handling filters, and combustion turbine air intake filters. Includes operation of baghouse ventilation duct fans with boiler offline.
2. Includes pre-heater basket handling and maintenance, refractory change-out, fan maintenance and balancing, damper, air heater, and soot blower maintenance, and any other general boiler maintenance that does not exceed the worst-case emissions representation in the application.
3. Material handling system equipment includes, but is not limited to, silos, transport systems, coal bunkers, coal crushing equipment, coal handling, nuvafeeders, hoppers, and sludge handling system. Materials handled include coal, ash, limestone, soda ash, and lime.
4. Includes, but is not limited to, (i) repair/replacement of pumps, compressors, valves, pipes, flanges, transport lines, filters and screens in natural gas, fuel oil, diesel oil, lube oil, and gasoline service, and (ii) vehicle and mobile equipment maintenance that may involve small VOC emissions, such as oil changes, transmission service, and hydraulic system service.
5. After December 31, 2024, coal shall no longer be burned in the boiler, per the requirements of Agreed Order Docket 2020-0982-MIS.

Dated May 20, 2021

ATTACHMENT B
Permit Numbers 5129 and PSDTX017M2
Non-ILE Planned Maintenance Activities

Planned Maintenance Activity	EPN	Emissions				
		VOC	NOx	CO	PM	SO ₂
Gaseous fuel venting ¹	MSS-FUG2	x				
Combustion optimization ²	2-1 and 3-1	x	x	x	x	x
Vacuum truck solids loading ³	MSS-FUG2				x	
Vacuum truck solids unloading	MSS-FUG2				x	
Degassing for maintenance of storage vessels storing gasoline or other material with vapor pressure >0.5 psia that requires clearing of the vessels to allow for entry of personnel	MSS-FUG2	x				
PM control device maintenance – unit online	2-1 and 3-1				x	

Notes for Attachment B:

1. Includes, but is not limited to, venting prior to pipeline pigging, and meter proving.
2. Includes, but is not limited to, (i) leak and operability checks (e.g., turbine over-speed tests, troubleshooting), and (ii) tuning activities that occur during seasonal tuning or after the completion of initial construction, a combustor change-out, a major repair, maintenance to a combustor, or other similar circumstances.
3. Includes site-wide ash vacuuming operations (e.g., baghouse, ESP, ducts, furnace, loop seals, stripper coolers, and airlocks).
4. After December 31, 2024, coal shall no longer be burned in the boiler, per the requirements of Agreed Order Docket 2020-0982-MIS.

Date: May 20, 2021

Emission Sources - Maximum Allowable Emission Rates

Permit Number 5129 and PSDTX017M2

This table lists the maximum allowable emission rates and all sources of air contaminants on the applicant's property covered by this permit. The emission rates shown are those derived from information submitted as part of the application for permit and are the maximum rates allowed for these facilities, sources, and related activities. Any proposed increase in emission rates may require an application for a modification of the facilities covered by this permit.

Air Contaminants Data

Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates	
			lbs/hour	TPY (4)
2-1	Unit 2 Boiler Stack (6)	NO _x	1,341.00	3,774.0
		CO	1,915.00	5,033.0
		VOC	14.00	56.0
		SO ₂	4,602.00	18,946.0
		PM ₁₀	383.00	1,579.0
2-2	Unit 2 Ash Handling System Bin Vent	PM ₁₀	0.50	2.2
2-2A	Unit 2 Ash Handling System Pump A Discharge	PM ₁₀	0.046	0.2
2-2B	Unit 2 Ash Handling System Pump B Discharge	PM ₁₀	0.046	0.2
3-1	Unit 3 Boiler Stack (6)	NO _x	1,161.00	5,085.0
		CO	581.00	2,543.0
		VOC	55.00	241.0
		SO ₂	4,151.00	18,181.0
		PM ₁₀	347.00	1,520.0
3-2	Fly Ash Silo Bin Vent	PM ₁₀	0.34	1.5
3-2A	Unit No. 3 Vacuum Pump Discharge	PM ₁₀	0.01	0.04

Permit Number 5129
 Page 2

Emission Sources - Maximum Allowable Emission Rates

Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates	
			lbs/hour	TPY (4)
MSS-FUG2	MSS Fugitives (5)	SO ₂	<0.01	<0.01
		NO _x	<0.01	<0.01
		VOC	39.00	0.79
		PM	8.51	4.97
		PM ₁₀	2.45	1.20
		PM _{2.5}	0.37	0.18

- (1) Emission point identification - either specific equipment designation or emission point number from plot plan.
- (2) Specific point source name. For fugitive sources, use area name or fugitive source name.
- (3) VOC
 - volatile organic compounds as defined in Title 30 Texas Administrative Code § 101.1 (based on AP-42, "Tables 1.1-2 and 1.1-11")
- NO_x
 - total oxides of nitrogen
- SO₂
 - sulfur dioxide
- PM
 - total particulate matter, suspended in the atmosphere, including PM₁₀ and PM_{2.5}, as represented
- PM₁₀
 - total particulate matter equal to or less than 10 microns in diameter, including PM_{2.5}, as represented
- PM_{2.5}
 - particulate matter equal to or less than 2.5 microns in diameter
- CO
 - carbon monoxide
- (4) Compliance with annual emission limits (tons per year) is based on a 12 month rolling period.
- (5) Emission rate is an estimate and is enforceable through compliance with the applicable special condition(s) and permit application representations.
- (6) The lb/hr and tpy emission limits specified in the MAERT for this facility includes emissions from the facility during both normal operations and planned MSS activities. (05/12)

Date: May 21, 2012

Common Acronyms in Air Permits

$^{\circ}\text{C}$ = Temperature in degrees Celsius
 $^{\circ}\text{F}$ = Temperature in degrees Fahrenheit
 $^{\circ}\text{K}$ = Temperature in degrees Kelvin
 μg = microgram
 $\mu\text{g}/\text{m}^3$ = microgram per cubic meter
acfm = actual cubic feet per minute
AMOC = alternate means of control
AOS = alternative operating scenario
AP-42 = Air Pollutant Emission Factors, 5th edition
APD = Air Permits Division
API = American Petroleum Institute
APWL = air pollutant watch list
BPA = Beaumont/ Port Arthur
BACT = best available control technology
BAE = baseline actual emissions
bbl = barrel
bbl/day = barrel per day
bhp = brake horsepower
BMP = best management practices
Btu = British thermal unit
Btu/scf = British thermal unit per standard cubic foot or feet
CAA = Clean Air Act
CAM = compliance-assurance monitoring
CEMS = continuous emissions monitoring systems
cfm = cubic feet (per) minute
CFR = Code of Federal Regulations
CN = customer ID number
CNG = compressed natural gas
CO = carbon monoxide
COMS = continuous opacity monitoring system
CPMS = continuous parametric monitoring system
DFW = Dallas/ Fort Worth (Metroplex)
DE = destruction efficiency
DRE = destruction and removal efficiency
dscf = dry standard cubic foot or feet
dscfm = dry standard cubic foot or feet per minute
ED = (TCEQ) Executive Director
EF = emissions factor
EFR = external floating roof tank
EGU = electric generating unit
EI = Emissions Inventory
ELP = EI Paso
EPA = (United States) Environmental Protection Agency
EPN = emission point number
ESL = effects screening level
ESP = electrostatic precipitator
FCAA = Federal Clean Air Act
FCCU = fluid catalytic cracking unit
FID = flame ionization detector
FIN = facility identification number
ft = foot or feet
ft/sec = foot or feet per second
g = gram
gal/wk = gallon per week
gal/yr = gallon per year
GLC = ground level concentration
 GLC_{max} = maximum (predicted) ground-level concentration

gpm = gallon per minute
gr/1000scf = grain per 1000 standard cubic feet
gr/dscf = grain per dry standard cubic feet
 H_2CO = formaldehyde
 H_2S = hydrogen sulfide
 H_2SO_4 = sulfuric acid
HAP = hazardous air pollutant as listed in § 112(b) of the Federal Clean Air Act or Title 40 Code of Federal Regulations Part 63, Subpart C
HC = hydrocarbons
HCl = hydrochloric acid, hydrogen chloride
Hg = mercury
HGB = Houston/Galveston/Brazoria
hp = horsepower
hr = hour
IFR = internal floating roof tank
in H_2O = inches of water
in Hg = inches of mercury
IR = infrared
ISC3 = Industrial Source Complex, a dispersion model
ISCST3 = Industrial Source Complex Short-Term, a dispersion model
K = Kelvin; extension of the degree Celsius scaled-down to absolute zero
LACT = lease automatic custody transfer
LAER = lowest achievable emission rate
lb = pound
hp = horsepower
hr = hour lb/day = pound per day
lb/hr = pound per hour
lb/MMBtu = pound per million British thermal units
LDAR = Leak Detection and Repair (Requirements)
LNG = liquefied natural gas
LPG = liquefied petroleum gas
LT/D = long ton per day
m = meter
 m^3 = cubic meter
m/sec = meters per second
MACT = maximum achievable control technology
MAERT = Maximum Allowable Emission Rate Table
MERA = Modeling and Effects Review Applicability
mg = milligram
mg/g = milligram per gram
mL = milliliter
MMBtu = million British thermal units
MMBtu/hr = million British thermal units per hour
MSDS = material safety data sheet
MSS = maintenance, startup, and shutdown
MW = megawatt
NAAQS = National Ambient Air Quality Standards
NESHAP = National Emission Standards for Hazardous Air Pollutants
NGL = natural gas liquids
NNSR = nonattainment new source review
NO_x = total oxides of nitrogen
NSPS = New Source Performance Standards
PAL = plant-wide applicability limit
PBR = Permit(s) by Rule

Pollution Control Project Permits

PCP = pollution control project

PEMS = predictive emission monitoring system

PID = photo ionization detector

PM = periodic monitoring

PM = total particulate matter, suspended in the atmosphere, including PM₁₀ and PM_{2.5}, as represented

PM_{2.5} = particulate matter equal to or less than 2.5 microns in diameter

PM₁₀ = total particulate matter equal to or less than 10 microns in diameter, including PM_{2.5}, as represented

POC = products of combustion

ppb = parts per billion

ppm = parts per million

ppmv = parts per million (by) volume

psia = pounds (per) square inch, absolute

psig = pounds (per) square inch, gage

PTE = potential to emit

RA = relative accuracy

RATA = relative accuracy test audit

RM = reference method

RVP = Reid vapor pressure

scf = standard cubic foot or feet

scfm = standard cubic foot or feet (per) minute

SCR = selective catalytic reduction

SIL = significant impact levels

SNCR = selective non-catalytic reduction

SO₂ = sulfur dioxide

SOCMI = synthetic organic chemical manufacturing industry

SRU = sulfur recovery unit

TAC = Texas Administrative Code

TCAA = Texas Clean Air Act

TCEQ = Texas Commission on Environmental Quality

TD = Toxicology Division

TLV = threshold limit value

TMDL = total maximum daily load

tpd = tons per day

tpy = tons per year

TVP = true vapor pressure

VOC = volatile organic compounds as defined in Title 30

Texas Administrative Code § 101.1

VRU = vapor recovery unit or system

Harrington Station Capital Expenditures

Unit	Projects Description (WBS Level 4 Description)	Year	In-Service Date	Capital Addition Value	Removal Value	Total Expenditures	AFUDC
HAR Unit 3	HAR3C-H3 Install Ash Silo Elevator	2005	2/15/2005	300,235	-	300,235	2,947
HAR Unit 2	HAR2C-H2 Replace Coal Mill Exhauste	2005	11/3/2005	90,559	1,003	91,563	3,776
HAR Unit 2	HAR2C-H2 Inst Addl Blr Sootblowers	2005	11/30/2005	396,700	-	396,700	4,150
HAR Unit 3	HAR3C-H3 Repl Major Comp Soot Blow	2005	12/22/2005	493,028	27,515	520,543	6,336
HAR Unit 3	HAR3C-H3 Install Addl Boiler Long	2006	12/5/2006	432,541	-	432,541	6,491
HAR Unit 3	HAR3C-H3 Install Hi-Eff Coal Mill E	2007	1/1/2007	105,904	4,016	109,920	512
HAR Unit 3	HAR3C-Repl CMMS Soft/Hard/EDR	2007	5/31/2007	76,244	7,284	83,528	3,035
HAR Unit 1	HAR1C-Repl CMMS Field Hardware	2007	5/31/2007	111,684	3,441	115,125	128
HAR Unit 1	HAR1C-Repl CMMS Soft/Hard/EDR	2007	5/31/2007	93,830	7,194	101,024	3,219
HAR Unit 3	HAR3C-Repl CMMS Field Hardware	2007	7/24/2007	109,075	2,068	111,143	875
HAR Unit 2	HAR2C-Repl CMMS Field Hardware	2007	7/31/2007	129,322	5,822	135,144	878
HAR Unit 3	HAR3C - H3 Repl 3D Coal Mill	2007	9/1/2007	90,324	20,589	110,912	100
HAR Unit 2	HAR2C-Repl CMMS Soft/Hard/EDR	2007	9/27/2007	77,815	1,323	79,139	4,120
HAR Unit 1	HAR1C-Install Mercury CEMS Mon	2008	8/1/2008	354,464	-	354,464	5,303
HAR Unit 2	HAR2C-Install Mercury CEMS Mon	2008	8/1/2008	395,415	-	395,415	5,655
HAR Unit 3	HAR3C-Install Mercury CEMS Mon	2008	8/1/2008	439,767	-	439,767	5,857
HAR Unit 3	HAR3C-H3 Replace Drag Chain	2009	5/1/2009	46,901	159	47,059	328
HAR Unit 3	HAR3C-Coal Bunker Level Measure	2009	11/11/2009	61,288	335	61,623	582
HAR Unit 3	HAR3C-Rpl Bottom Ash Chute	2009	11/13/2009	55,283	36,790	92,074	294
HAR Unit 3	HAR3C-Coal Mill Journal Liners	2009	11/13/2009	9,429	887	10,317	-
HAR Unit 3	HAR3C-Rpl Baghouse Vent Dampers	2009	11/13/2009	55,348	8,668	64,016	280
HAR Unit 3	HAR3C-Coal Pipe Isolation VVs	2009	11/13/2009	180,152	-	180,152	753
HAR Unit 3	HAR3C-Neural System Purchase	2010	1/1/2010	716,956	-	716,956	26,696
HAR Unit 2	HAR2C-Rebag Baghouse Compartment	2010	1/22/2010	62,311	26,336	88,648	73
HAR Unit 1	HAR1C-Rpl Coal Bunker Level Meas	2010	2/1/2010	64,704	514	65,218	605
HAR Unit 3	HAR1C-Drag Chain replacement	2010	3/1/2010	64,341	4,813	69,154	1,277
HAR Unit 2	HAR2C-Rpl Coal Bunker Level Measure	2010	3/5/2010	56,426	363	56,789	664
HAR Unit 1	HAR1C-Purch Neural System	2010	5/31/2010	359,110	-	359,110	4,665
HAR Unit 2	HAR2C-Rpl Coal Mill Duct Work	2010	7/12/2010	875,937	150,882	1,026,819	42
HAR Unit 2	HAR2C-Purch Neural Network	2010	9/10/2010	534,279	-	534,279	2,627
HAR Unit 1	HAR1C-Coal Pipe Isolation VVs	2010	10/15/2010	190,200	-	190,200	4,088
HAR Unit 1	HAR1C-Coal Mill Journal Liners	2010	10/15/2010	26,415	4,010	30,425	211
HAR Unit 1	HAR1C - H1 NOX Reduction Proj	2010	10/18/2010	4,586,022	200,526	4,786,548	121,110
HAR Unit 2	HAR2C-Rpl Baghouse Elevator	2010	11/24/2010	326,888	7,641	334,528	2,850
HAR Unit 3	HAR3C-Rpl Baghouse Elevator	2010	11/24/2010	302,025	35,158	337,183	2,844
HAR Unit 1	HAR1C-inst H1 SootOpt Pkg	2011	2/7/2011	169,068	-	169,068	1,366
HAR Unit 2	HAR2C-Coal Piping Isolation VVs	2011	5/9/2011	174,783	-	174,783	1,252
HAR Unit 2	HAR2C-Rpl Coal Mill Jml Liners	2011	5/9/2011	19,540	5,174	24,715	112
HAR Unit 2	HAR2C-Rpl Coal Mill Classfr Cones	2011	5/9/2011	91,471	9,653	101,124	740
HAR Unit 1	HAR2C-H2 Rpl Drag Chain	2011	5/10/2011	109,239	1,019	110,258	1,523
HAR Unit 2	HAR2C-Rebag 6 Cmprt Major 2011	2011	5/12/2011	128,991	12,753	141,744	1,006
HAR Unit 3	HAR3C-Rebag 3 Cmprt Mini 2011	2011	5/31/2011	48,945	9,703	58,648	53

Harrington Station Capital Expenditures

Unit	Projects Description (WBS Level 4 Description)	Year	In-Service Date	Capital Addition Value	Removal Value	Total Expenditures	AFUDC
HAR Unit 0	HAR0C-Rpl Railroad Ballast	2012	3/29/2012	1,238,967	113,956	1,352,923	16,847
HAR Unit 3	HAR3C-Rpl Drag Chain	2012	4/26/2012	77,818	10,218	88,036	579
HAR Unit 2	HAR2C-Rebag 3 Cmptr Mini 12	2012	5/8/2012	45,490	10,863	56,353	210
HAR Unit 3	HAR3C-H3 Rpl Opacity Monitor	2012	5/8/2012	44,910	3,764	48,673	867
HAR Unit 3	HAR3C-Rebag 6 Cmptr Maj 12	2012	5/8/2012	100,598	31,125	131,723	1,553
HAR Unit 1	HAR1C-H1 Inst Ash Silo Elevator	2012	8/17/2012	599,502	-	599,502	9,204
HAR Unit 0	HAR0C-Rpl Ash Gate remote secu	2012	9/4/2012	30,726	655	31,381	290
HAR Unit 1	HAR1C-Rpl CEMs Sample Probe	2012	9/28/2012	12,307	651	12,957	18
HAR Unit 2	HAR2C-Rpl CEMs Sample Probe	2012	10/25/2012	11,734	1,667	13,401	57
HAR Unit 1	HAR1C-H1 A SB Air Compressor	2012	11/21/2012	131,378	2,462	133,840	525
HAR Unit 3	HAR3C-Rpl CEMs Sample Probe	2012	12/18/2012	16,218	1,301	17,520	179
HAR Unit 1	HAR1C-H1 Rpl Drag Chain	2013	3/8/2013	62,445	48,135	110,580	708
HAR Unit 2	HAR2C-H2 Rpl Opacity Monitor	2013	4/4/2013	47,235	795	48,030	218
HAR Unit 1	HAR2C-Rebag 14 Compartments	2013	4/9/2013	280,494	51,557	332,051	1,552
HAR Unit 3	HAR3C-Rebag 3 Cmptr Mini 2013	2013	5/16/2013	72,123	29,065	101,188	379
HAR Unit 3	HAR3C-U3 Coal Bunker CO monit	2013	6/27/2013	52,466	-	52,466	42
HAR Unit 2	HAR2C-U2 Coal Bunker CO monit	2013	6/27/2013	55,598	-	55,598	47
HAR Unit 2	HAR1C-U1 Coal Bunker CO monit	2013	6/27/2013	59,818	-	59,818	36
HAR Unit 1	HAR3C-3B Mill Brdg Foundation P	2013	8/2/2013	33,305	18,718	52,023	163
HAR Unit 3	HAR2C-H2 Rebag Partial 14	2014	2/7/2014	170,974	37,866	208,840	780
HAR Unit 2	HAR2C-Rbld E Flyash Vac Pump	2014	3/7/2014	34,012	5,416	39,428	160
HAR Unit 2	HAR2C-H2 Replace Drag Chain 14	2014	3/7/2014	110,239	22,155	132,394	789
HAR Unit 2	HAR2C-H2 2C Coal Mill OH	2014	3/21/2014	180,934	14,294	195,227	1,120
HAR Unit 2	HAR2C-Rpl Ash Silo Collector	2014	3/28/2014	923,770	76,464	1,000,235	8,726
HAR Unit 3	HAR3C-H3 Rebag Partial 2014	2014	5/22/2014	100,061	19,150	119,210	322
HAR Unit 2	HAR2C-H2 2D Coal Mill OH	2014	9/17/2014	1,181,265	45,356	1,226,621	17,445
HAR Unit 3	HAR3C-H3 Mercury CEMs Upgrade	2014	10/14/2014	279,030	399	279,428	3,661
HAR Unit 2	HAR2C-H2 Mercury CEMs Upgrade	2014	10/15/2014	351,010	977	351,987	4,959
HAR Unit 1	HAR1C-H1 Rpl Opacity Monitor	2014	12/10/2014	75,348	918	76,265	313
HAR Unit 0	HAR0C-Direct ACI Mercury Reduction	2014	12/30/2014	2,079,551	-	2,079,551	26,416
HAR Unit 3	HAR3C-ACI-Mercury Reduction	2014	12/30/2014	525,001	-	525,001	10,022
HAR Unit 2	HAR2C-ACI-Mercury Reduction	2014	12/30/2014	520,014	-	520,014	10,334
HAR Unit 3	HAR3C-H3 Rebag Partial 2015	2015	1/30/2015	210,983	48,091	259,075	337
HAR Unit 1	HAR1C-ACI-Mercury Reduction	2015	2/27/2015	3,707,988	-	3,707,988	121,742
HAR Unit 2	HAR2C-H2 Rebag Partial 2015	2015	5/8/2015	186,058	25,485	211,543	248
HAR Unit 1	HAR1C-inst ESP Chem Injection	2015	6/30/2015	1,205,766	1,181	1,206,947	6,723
HAR Unit 3	HAR3C-H3 Rpl Blr Elevator	2015	8/29/2015	391,862	4,508	395,369	3,036
HAR Unit 1	HAR1C-H1 E Mill Mtr Rwnd	2015	10/7/2015	46,623	1,755	48,378	153
HAR Unit 3	HAR3C-H3 CEMs Foxboro Upgrade	2015	10/7/2015	165,262	683	165,945	1,427
HAR Unit 3	HAR3C-Rpl Deflation Fans VFDs	2015	11/4/2015	28,759	2,056	30,815	303
HAR Unit 3	HAR3C-Rpl Deflation Fan Motors	2015	11/5/2015	18,747	3,949	22,696	67
HAR Unit 1	HAR1C-H1 Upgrade CEMs Foxboro	2015	11/6/2015	176,685	937	177,622	511

Harrington Station Capital Expenditures

Unit	Projects Description (WBS Level 4 Description)	Year	In-Service Date	Capital Addition Value	Removal Value	Total Expenditures	AFUDC
HAR Unit 3	HAR3C-Coal Mill A Vane Wheels	2015	11/9/2015	61,047	6,221	67,268	4,23
HAR Unit 3	HAR3C-Rpl Mill B Vane Wheels	2015	11/10/2015	70,929	2,676	73,605	450
HAR Unit 3	HAR3C-Rpl Mill C Vane Wheels	2015	11/10/2015	56,717	3,656	60,374	413
HAR Unit 3	HAR3C-Coal Mill D Vane Wheels	2015	11/13/2015	61,870	14,024	75,894	432
HAR Unit 3	HAR3C-Coal Mill E Vane Wheels	2015	11/13/2015	59,888	8,606	68,494	435
HAR Unit 3	HAR3C-H3 Rpl Drag Chain 2015	2015	11/16/2015	69,497	8,826	78,323	96
HAR Unit 3	HAR3C-Coal Mill C Exhaust Fan	2015	11/17/2015	181,659	3,779	185,438	1,066
HAR Unit 3	HAR3C-H3 Rebag Partial	2015	11/17/2015	108,503	18,868	127,371	127
HAR Unit 3	HAR3C-Coal Mill B Major OH	2015	11/19/2015	401,982	21,731	423,713	1,422
HAR Unit 2	HAR2C-H2 Mill C Mir Mir Overhaul	2015	11/29/2015	1,062,520	134,584	1,197,104	4,317
HAR Unit 2	HAR2C-Rpl SBAC 2C Vib Mon Sys	2016	5/31/2016	24,712	1,422	26,135	126
HAR Unit 2	HAR2C-E 2C SBAC Motor Revind	2016	5/31/2016	120,313	(1,358)	118,956	633
HAR Unit 1	HAR1C-E Rpl Silo Aeration Blower	2016	5/31/2016	20,694	3,265	23,958	22
HAR Unit 3	HAR3C-Rpl Deflation Pipe 1/2	2016	6/28/2016	420,403	17,040	437,443	2,876
HAR Unit 2	HAR2C-SBAC 2C Mir Reblid 2016	2016	6/28/2016	314,550	122,939	437,489	7,521
HAR Unit 3	HAR3C-E Rpl Flyash Fluidization htr	2016	6/28/2016	49,490	2,530	52,019	236
HAR Unit 1	HAR1C-H1 Rpl Bottom Ash Bunker	2016	8/30/2016	24,627	4,612	29,239	194
HAR Unit 2	HAR2C-E W Aeration Blwr Ohvl	2016	9/28/2016	36,369	1,054	37,423	336
HAR Unit 1	HAR1C-H1 ESP Rpl Rappers	2016	10/28/2016	472,684	8,647	481,330	3,485
HAR Unit 2	HAR2C-E West Flyash pump ovhl	2016	10/28/2016	42,342	3,234	45,576	370
HAR Unit 1	HAR1C-E Rbls Flyash Vac Pmps	2016	11/16/2016	124,634	5,744	130,378	529
HAR Unit 3	HAR3C-E Rwdn D Coal Mill Mtr	2016	11/16/2016	64,208	7,836	72,044	261
HAR Unit 2	HAR3C-E Rwdn E Coal Mill Mtr	2016	11/16/2016	47,625	4,431	52,056	346
HAR Unit 3	HAR2C-H2 Upgrade CEms Foxboro	2016	12/20/2016	222,314	991	223,305	2,074
HAR Unit 2	HAR1C-Rpl H1 Mill A Exhaust Fan	2016	12/28/2016	176,192	9,502	185,693	5,230
HAR Unit 1	HAR1C-H1 Rpl Drag Chain	2016	12/28/2016	67,486	1,974	69,460	268
HAR Unit 3	HAR3C-Rpl Deflation Pipe 2/2	2017	1/30/2017	376,914	84,739	461,653	1,773
HAR Unit 1	HAR1C-E Rebuild TR Set	2017	1/30/2017	31,732	3,259	34,991	77
HAR Unit 3	HAR3C-H3 Rebag Partial 2017	2017	3/30/2017	144,745	8,158	152,903	1,536
HAR Unit 2	HAR2C-E Rpl C Mill Exh Fan Brg	2017	3/30/2017	193,676	912	194,588	2,164
HAR Unit 2	HAR2C-H2 Mill B Major OH	2017	5/18/2017	822,506	115,571	938,076	11,919
HAR Unit 3	HAR3C-Rpl SBAC JoyVibMonSys	2017	5/18/2017	31,532	1,739	33,271	124
HAR Unit 2	HAR2C-H2 Rpl Drag Chain 2017	2017	5/18/2017	58,564	3,163	61,727	77
HAR Unit 2	HAR2C-Rpl Befuse Doors -20587	2017	5/26/2017	284,407	54,123	338,330	1,224
HAR Unit 2	HAR2C-Rpl Befuse Inlet Exp Jnts -20	2017	5/26/2017	208,881	59,949	268,830	522
HAR Unit 3	HAR3C-SBAC Joy Mir Reblid 2016	2017	7/3/2017	480,173	59,847	540,021	7,989
HAR Unit 1	HAR1C-ESP Re-build TR-sets Ph1	2017	7/31/2017	91,658	8,995	100,653	346
HAR Unit 1	HAR1C-Rpl SBAC 1B Vib Mon Sys	2017	12/14/2017	23,421	2,575	25,996	182
HAR Unit 1	HAR1C-SBAC 1B Mir Reblid 2017	2017	12/18/2017	516,725	24,505	541,230	3,241
HAR Unit 2	HAR2C-Rpl H2 Mill E Exhaust	2017	12/18/2017	83,375	14,396	97,771	216
HAR Unit 1	HAR1C-ESP Rebuild TR-sets FH2	2018	5/15/2018	91,868	5,038	96,906	1,205
HAR Unit 2	HAR2C-Rpl Deflation Fan Motors	2018	6/25/2018	17,716	4,078	21,794	80

Unit	Projects Description (WBS Level 4 Description)	Year	In-Service Date	Capital Addition Value	Removal Value	Total Expenditures	AFUDC
HAR Unit 2	HAR2C-H2 Instal Ash Silo Elev	2018	9/18/2018	565,909	11,707	577,616	7,571
HAR Unit 3	HAR3C-W Vac Pump Overhaul	2018	11/13/2018	433	(433)	0	-
HAR Unit 3	HAR3C- Rpl Bgnsse Doors -20582	2018	11/19/2018	364,027	65,984	430,011	3,258
HAR Unit 3	HAR3C-Rebag Partial 2018	2018	11/23/2018	131,881	47,081	178,962	1,262
HAR Unit 3	HAR3C-Rpl Drag Chain 2018	2018	11/23/2018	71,774	7,628	79,402	712
HAR Unit 3	HAR3C-Rpl Bgnsse Inlet Duct Exp Jnts	2018	11/23/2018	131,949	136,640	268,589	1,151
HAR Unit 3	HAR3C- 3D SBAC Motor Rewind	2018	12/21/2018	170,115	4,071	174,185	3,665
HAR Unit 1	HAR1C-Rpl Dust Sprssn Pump Cable	2018	12/26/2018	31,062	5,227	36,288	106
HAR Unit 0	HAR0C-Rpl SBAC Controls	2018	12/26/2018	506,492	606	507,098	23,479
HAR Unit 1	HAR1C-Rpl ESP Wires Ph 1 of 2	2019	6/22/2019	397,516	96,542	494,059	6,080
HAR Unit 1	HAR1C-Rpl Drag Chain 2019	2019	6/22/2019	168,162	1,367	169,530	892
HAR Unit 2	HAR2C-Rebag Partial 2019	2019	6/22/2019	206,063	26,016	232,078	7,978
HAR Unit 1	HAR1C-ESP Re-build 10 TR-sets	2019	6/28/2019	291,415	10,554	301,969	3,514
HAR Unit 1	HAR1C-Rpl S. Vacuum Pump Motor	2019	6/28/2019	10,942	1,189	12,131	160
HAR Unit 2	HAR2C-Mill A Major Major OH	2019	8/1/2019	25,763	1,438	27,201	2,643
HAR Unit 1	HAR1C-SBAC 1A Mjr-Reblid	2019	9/1/2019	24,982	248	25,230	649
HAR Unit 3	HAR3C-Partial Rebag	2019	10/28/2019	119,132	21,112	140,244	561
HAR Unit 2	HAR2C-Rebulic2C SBAC Blower	2019	12/19/2019	122,375	4,253	126,628	1,518
HAR Unit 3	HAR3C Rpl Mercury Analyzer	2020	3/23/2020	74,861	2,477	77,339	346
HAR Unit 2	HAR2C-H2 Rebag Partial 2020	2020	5/29/2020	252,383	35,428	287,811	1,486
HAR Unit 2	HAR2C Instl Sootblwr Blck Vlvs	2020	5/29/2020	81,229	-	81,229	899
HAR Unit 2	HAR2C-East Vac Pump Overhaul	2020	5/29/2020	50,359	6,498	56,857	302
HAR Unit 2	HAR2C-Rpl Drag Chain 2020	2020	5/29/2020	65,287	4,669	69,956	287
HAR Unit 1	HAR1C-Rpl SBAC 1A Vib Monitoring	2020	7/1/2020	28,900	882	29,782	1,370
HAR Unit 2	HAR2C Rpl 2A Mill Duct Exp Int	2020	7/1/2020	21,861	2,858	24,719	310
HAR Unit 2	HAR2C Rpl Mercury Analyzer	2020	7/24/2020	76,397	2,115	78,513	813
HAR Unit 3	HAR3C Rpl N033 Econ Hopper Vlv	2020	8/26/2020	8,446	310	8,756	81
HAR Unit 3	HAR3C-Mill B Major Overhaul	2020	9/24/2020	515,647	43,081	558,728	28,478
HAR Unit 3	HAR3C-Rbd E Flyash Vac Pump	2020	9/28/2020	59,764	7,170	66,934	332
HAR Unit 3	HAR3C-Rpl C Mill Exhaust Fan	2020	12/1/2020	71,440	14,239	85,679	1,370
HAR Unit 3	HAR3C-H3 Rebag Partial 2020	2020	12/15/2020	145,792	44,568	190,359	1,482
HAR Unit 3	HAR3 A Coal Mill Motor Rewind	2020	12/22/2020	66,381	12,248	78,628	345
HAR Unit 2	HAR2 Rpl Ash Silo Equal Vlv	2020	12/22/2020	10,130	(97)	10,033	29

Harrington Station Maintenance Schedules

Harrington Unit 2 O VH HP/IP, LP, Gen		PROJ-S-01 Complete Schedule										Jan-10-14 04:25 PM										
Activity ID	Activity Name	Start	Finish	Responsibility Crew		January 2014		February 2014		March 2014		06	13	20	27	03	10	17	24	03	10	17
A16820	HAR2-OH-4 Harrington Unit 2 O VH HP/IP, LP, Gen	565.01 Jan-03-14 12:00 PM A	Mar-26-14 12:00 AM																			
A16850	HAR2-OH-4-OH-6 Overhaul Management	565.01 Jan-03-14 12:00 PM A	Mar-26-14 12:00 AM																			
A16860	HAR2-OH-4-OH-6-5 Overhaul Management Phase 6 - Implementation	540.01 Jan-03-14 12:00 PM A	Mar-21-14 12:00 PM																			
A16870	HAR2-OH-4-OH-6-5-1 Pre-Outage Activity	45.01 Jan-03-14 06:00 PM A	Jan-10-14 07:30 PM																			
A12860	HAR2-OH-4-OH-6-5-1-SHUT-1 Unit Shutdown	0.00 Jan-03-14 10:00 PM A																				
A16720	Unit Shutdown - Unit Off AGC	45.01 Jan-03-14 06:00 PM A	Jan-10-14 07:30 PM																			
A16730	Unit Shutdown - Perform Visual Tube Leak Check	0.00 Jan-03-14 06:00 PM A																				
A16740	HAR2-OH-4-OH-6-5-SHUT-1 Unit Ramp Down, Shutdown Accelerated Turbine Cooldown	0.00 Jan-03-14 06:00 PM A																				
A16750	Ramp Load to 150 MWs, 3 Mills in Service	0.00 Jan-03-14 06:00 PM A																				
A16760	Sweep Boiler Feed Pump	0.00 Jan-03-14 06:00 PM A																				
A16760	Drop Load to 50 MWs	0.00 Jan-03-14 06:00 PM A																				
A16780	Last Coal Mill Out of Service, Ignitors in Service	0.00 Jan-03-14 06:00 PM A																				
A16780	Sag Throttle Pressure to 500 Psi (Maintain 700 Degree Main Steam Temp)	0.00 Jan-03-14 06:00 PM A																				
A16830	Unit Shutdown - Unit Offline, Breaker Open (PCI Date / Time)	0.00 Jan-03-14 06:00 PM A																				
A17030	LOTO - Generator and Field Breakers, Voltage Regulator in Off Position	0.00 Jan-03-14 07:30 PM A																				
A16810	Turbine Coast Down, Ensure Line Gages on Turbine Gear	0.00 Jan-04-14 07:00 AM A																				
A16830	Turbine Shutdown - Degas Generator to CO2 and to Air	0.00 Jan-04-14 08:00 AM A																				
A16840	Ensure all Turbine Drain Valves Open	0.00 Jan-04-14 08:00 AM A																				
A16750	Admit Sootblower Air through Cold Reheat Lins	0.00 Jan-04-14 08:00 AM A																				
A16820	First Stage Temp 100 Degrees - Turbine Off Gear	0.00 Jan-04-14 08:00 AM A																				
A16860	Shutdown Turbine Lube Oil System and Pumps	0.00 Jan-04-14 02:00 PM A																				
A16850	Steam Seals Out of Service	0.00 Jan-04-14 03:00 PM A																				
A16850	Shut Down Generator Seal Oil System	5.00 Jan-04-14 09:53 PM A																				
A22140	HAR2-OH-4-OH-6-5-SHUT-2 Boiler Cooldown and LOTO	0.00 Jan-05-14 09:53 PM A																				
A22150	Shutdown Air Preheaters Gas Temp Below 400 F	0.00 Jan-04-14 07:00 AM A																				
A22170	LOTO - Main Gas Valve and Sootblower Air Supply	0.00 Jan-04-14 07:00 AM A																				
A22160	Cool Boiler Down to 100 F and Stop Accelerated Cooldown	0.00 Jan-04-14 10:00 AM A																				
A22190	Shut Down BCPs and Drain Boiler	4.00 Jan-05-14 12:00 PM																				
A22210	Install Water Side Clearance	2.00 Jan-05-14 04:00 PM																				
A22220	Open Dums and Install Air Movers	4.00 Jan-05-14 06:00 PM																				
A16870	HAR2-OH-4-OH-6-5-SHUT-GEN Generator Shutdown	33.00 Jan-03-14 09:53 PM A																				
A16880	Generator Shutdown - Turbine / Generator Offline	0.00 Jan-03-14 09:53 PM A																				
A16890	Generator Shutdown - Hang Generator / Transformer Clearance	5.00 Jan-06-14 12:00 PM																				
A17000	Generator Shutdown - Install grounds	8.00 Jan-07-14 05:00 AM																				
A17010	Generator Shutdown - Pull Generator links	8.00 Jan-07-14 01:00 AM																				
A17020	Generator Shutdown - Operations to complete master Generator Clearance	12.00 Jan-07-14 09:00 AM																				
A18420	HAR2-OH-4-OH-6-5-SHUT-BOP BOP Shutdown	0.00 Jan-07-14 09:00 PM																				
A18430	Equipment Cooldown before Cooling Water out of service	78.00 Jan-07-14 01:30 PM																				
A18440	Equipment Cooldown Complete	30.00 Jan-07-14 01:30 PM																				
A18450	Drain Cooling Towers Basin (CD, FW, MC, CW)	0.00 Jan-08-14 07:30 PM																				
	Cooling Towers Basin Drained	48.00 Jan-08-14 07:30 PM																				
	Cooling Towers Basin Drained	0.00 Jan-10-14 07:30 PM																				

Page 1 of 38

TASK filter: All Activities

© Oracle Corporation

Harrington Station Maintenance Schedules

Harrington Unit 2 OVH HP/IP, LP, Gen		PROJ-S-01 Complete Schedule							Jan-10-14 04:25 PM							
Activity ID	Activity Name	Start	Remaining Duration	Finish	Responsible Crew	January 2014	February 2014	March 2014	06	13	20	27	03	10	17	
	HAR2-OH-4-OH-6-TS-2 LP Turbine Inspection	465.00	Jan-04-14 07:00 AM A	Mar-14-14 03:00 PM	Mar-11-14	01:00 PM										
A14060	HAR2-OH-4-OH-6-TS-2-1 LP Turbine Disassembly	62.00	Jan-04-14 07:00 AM A	Jan-05-14 02:00 PM												
A14030	DISASSEMBLY - UNBOLT & REMOVE LP, MANHOLE COVERS	6420829	0.00	Jan-04-14 08:00 AM A	Jan-04-14 08:00 AM A	TURB										
A14090	DISASSEMBLY - UNBOLT & REMOVE CROSSOVER-UNBOLT & REMOVE EXPANSION JOINT	6420829	0.00	Jan-04-14 08:00 AM A	Jan-04-14 09:00 AM A	TURB										
A14160	LP TURBINE - DISASSEMBLY - UNBOLT & REMOVE ADAPTER & INNER EXPANSION JOINT	6420829	0.00	Jan-04-14 09:00 AM A	Jan-04-14 11:40 AM A	TURB										
A14170	LP TURBINE - DISASSEMBLY - UNBOLT & REMOVE COUPLING COVERS #2 & #4, & SPLASH GUARDS HP-IP	6420829	0.00	Jan-05-14 03:00 AM A	Jan-05-14 07:00 AM A	TURB										
A14180	LP TURBINE - DISASSEMBLY - UNBOLT & REMOVE COUPLING COVERS #3 & #4- UNBOLT & REMOVE OIL SEAL UPPERS (BOTH ENDS)	6420829	0.00	Jan-05-14 07:00 AM A	Jan-05-14 12:00 PM A	TURB										
A14070	DISASSEMBLY - UNBOLT & REMOVE BRS UPPER #3 & #4-UNBOLT & REMOVE OIL SEAL UPPERS (BOTH ENDS) UPPER	6420829	0.00	Jan-05-14 12:00 PM A	Jan-05-14 01:00 PM A	TURB										
A14850	LP TURBINE - DISASSEMBLY - LP-UNBOLT & SLIDE GLAND SEALS BACK (BOTH ENDS) UPPER	6420829	0.00	Jan-05-14 12:00 PM A	Jan-05-14 04:00 PM A	TURB										
A14040	LP TURBINE - DISASSEMBLY - UNBOLT & REMOVE ALIGNMENT	6420829	0.00	Jan-05-14 01:00 PM A	Jan-05-14 05:00 PM A	TURB										
A14080	LP TURBINE - DISASSEMBLY - UNBOLT & REMOVE LP, OUTER COVER-COVER HORIZONTAL JOINT WITH PLYWOOD	6420829	0.00	Jan-05-14 04:00 PM A	Jan-05-14 10:00 PM A	TURB										
A14230	LP TURBINE - DISASSEMBLY - UNBOLT COUPLING & REMOVE BULGEAR, L.P. TO GEN.	6420829	0.00	Jan-05-14 05:00 PM A	Jan-05-14 10:00 PM A	TURB										
A14240	LP TURBINE - DISASSEMBLY - UNBOLT COUPLING & REMOVE SPACER HP TO LP	6420829	0.00	Jan-05-14 10:00 PM A	Jan-05-14 10:00 PM A	TURB										
A14220	LP TURBINE - DISASSEMBLY - REMOVE SEALS & SPRINGS IN HOUSINGS	6420829	2.00	Jan-06-14 12:00 PM	Jan-06-14 02:00 PM	TURB										
A14100	LP TURBINE - DISASSEMBLY - UNBOLT & REMOVE #1 CYL. COVER-UNBOLT & REMOVE HEAT SHIELD	6420829	10.00	Jan-06-14 02:00 PM	Jan-07-14 12:00 AM	TURB										
A14110	LP TURBINE - DISASSEMBLY - UNBOLT & REMOVE #2 CYLINDER COVER	6420829	10.00	Jan-07-14 12:00 AM	Jan-07-14 12:00 AM	TURB										
A14120	LP TURBINE - DISASSEMBLY - UNBOLT & REMOVE GOVN END UPPER BLADE RING	6420829	10.00	Jan-07-14 02:00 PM	Jan-08-14 12:00 AM	TURB										
A14140	LP TURBINE - DISASSEMBLY - UNBOLT & REMOVE GEN. END UPPER BLADE RING	6420829	10.00	Jan-08-14 02:00 PM	Jan-08-14 08:00 PM	TURB										
A14150	LP TURBINE - DISASSEMBLY - UNBOLT & REMOVE INLET FLOW GUIDE COVER	6420829	6.00	Jan-08-14 02:00 PM	Jan-08-14 08:00 PM	TURB										
A14250	LP TURBINE - TAKE AS FOUND READINGS-TAKE AS FOUND CLEARANCES-BLADE TIP CLEARANCES	6420863	7.00	Jan-08-14 08:00 PM	Jan-08-14 03:00 AM	TURB										
A14260	LP TURBINE - TAKE AS FOUND READINGS-TAKE AS FOUND CLEARANCES-SPRING BACK SEAL CLEARANCES	6420863	7.00	Jan-08-14 07:00 AM	Jan-08-14 02:00 PM	TURB										
	HAR2-OH-4-OH-6-TS-2-2 LP Turbine Rotor and Bearing Removal	263.00	Jan-09-14 02:00 PM	Feb-16-14 12:00 PM, HAR												
A14270	LP TURBINE - RIG TO REMOVE LP ROTOR	6420870	3.00	Jan-09-14 02:00 PM	Jan-09-14 12:00 PM	TURB										
A14280	LP TURBINE - REMOVE ROTOR	6420870	2.00	Jan-09-14 05:00 PM	Jan-09-14 07:00 PM	TURB										
A14290	LP TURBINE - REMOVE FLOW GUIDE	6420870	4.00	Jan-13-14 02:00 AM	Jan-13-14 11:00 PM	TURB										
A14300	LP TURBINE - REMOVE GENERATOR END LOWER BLADE RINGS	6420870	4.00	Jan-11-14 01:00 PM	Feb-16-14 12:00 PM	TURB										
A14940	LP Rotor Off-Site NDE inspection	719.00	Jan-11-14 01:00 PM	Feb-16-14 12:00 PM												
A14960	Ship LP Rotor for Offsite Inspection	0.00	Jan-11-14 01:00 PM	Feb-16-14 12:00 PM												
A14190	LP TURBINE - REMOVE PACKING, UPPER STEAM SEALS (BOTH ENDS)	6420829	2.00	Jan-13-14 02:00 AM	Jan-13-14 08:00 AM	TURB										
A14200	LP TURBINE - CLEAN SEALS & HOUSINGS(BEAD BLAST AS NEEDED)	6420829	2.00	Jan-13-14 02:00 AM	Jan-13-14 08:00 AM	TURB										
A14310	LP TURBINE - REMOVE GOVERNOR END LOWER BLADE RINGS	6420870	3.00	Jan-13-14 02:00 AM	Jan-13-14 09:00 AM	TURB										
A14210	LP TURBINE - REPAIR OR REPLACE SEALS & SPRINGS AS NEEDED	6420829	2.00	Jan-13-14 08:00 AM	Jan-13-14 10:00 AM	TURB										
A14320	LP TURBINE - UNBOLT & REMOVE LOWER STEAM SEALS AND PACKAGING	6420870	4.00	Jan-13-14 09:00 AM	Jan-13-14 10:00 AM	TURB										
A14330	LP TURBINE - CLEAN SEALS & HOUSINGS	6420870	4.00	Jan-13-14 09:00 PM	Jan-13-14 09:00 PM	TURB										
A14340	LP TURBINE - REPAIR OR REPLACE SEALS & SPRINGS AS NEEDED	6420870	4.00	Jan-13-14 09:00 PM	Jan-14-14 01:00 AM	TURB										
A14350	LP TURBINE - INSTALL SEALS & SPRINGS IN HOUSING, LOWER (BOTH ENDS)	6420870	2.00	Jan-14-14 01:00 PM	Jan-14-14 03:00 AM	TURB										
A14360	LP TURBINE - REMOVE LOWER OIL SEALS & LOWER AND UPPER GASKETS	6420870	2.00	Jan-14-14 07:00 AM	Jan-14-14 09:00 AM	TURB										
A14370	LP TURBINE - CLEAN ALL OIL SEALS	6420870	1.00	Jan-14-14 09:00 AM	Jan-14-14 10:00 AM	TURB										
A14380	LP TURBINE - REPAIR SEALS AS NEEDED	6420870	1.00	Jan-14-14 09:00 AM	Jan-14-14 10:00 AM	TURB										
A14390	LP TURBINE - INSTALL NEW GASKETS ON ALL OIL SEALS	6420870	2.00	Jan-14-14 09:00 AM	Jan-14-14 11:00 AM	TURB										
A14400	LP TURBINE - MAKE ALL GASKETS AS NEEDED	6420870	10.00	Jan-14-14 11:00 AM	Jan-14-14 09:00 PM	TURB										
A14410	LP TURBINE - ASSIST DON K. WITH NDE	6420870	6.00	Jan-14-14 09:00 PM	Jan-15-14 03:00 AM	TURB										
A14420	LP TURBINE - REMOVE LOWER #1 CYLINDER BASE	6420870	5.00	Jan-15-14 03:00 PM	Jan-15-14 03:00 PM	TURB										
A14430	LP TURBINE - REMOVE ALL SPRINGS BACK SEAL STRIPS (UPPERS & LOWERS)	6420870														

Page 2 of 38

TASK filter: All Activities

© Oracle Corporation

Project Baseline Bar

Actual Work

Remaining Work

Critical Remaining Work

Harrington Station Maintenance Schedules

Harrington Unit 2 OVH HP/IP, LP, Gen		PROJ-S-01 Complete Schedule						Jan-10-14 04:25 PM								
Activity ID	Activity Name	Maximo Work Order	Start Duration	Remaining Duration	Finish	Responsible Crew	January 2014	February 2014	March 2014	06	13	20	27	03	10	17
A14440	LP TURBINE - CLEAN AND REPAIR ALL SPRING BACK SEAL STRIPS	6420870	5.0h	Jan-15-14 12:00 PM	Jan-15-14 05:00 PM	TURB										
A14450	LP TURBINE - INSTALL ALL SPRING BACK SEAL STRIPS AFTER CLEANING AND REPAIRS	6420870	5.0h	Jan-15-14 05:00 PM	Jan-15-14 10:00 PM	TURB										
A14460	LP TURBINE - REMOVE LOWER BEARINGS #3 & #4-CLEAN BEARINGS	6420870	3.0h	Jan-15-14 10:00 PM	Jan-16-14 01:00 AM	TURB										
A14470	LP TURBINE - BOLT UP BOTH BEARINGS	6420870	3.0h	Jan-16-14 01:00 AM	Jan-16-14 08:00 AM	TURB										
A14480	LP TURBINE - MIG & RECORD BEARING SIZES	6420870	3.0h	Jan-16-14 08:00 AM	Jan-16-14 11:00 AM	TURB										
A14490	LP TURBINE - MIG & RECORD JOURNAL SIZES	6420870	3.0h	Jan-16-14 08:00 AM	Jan-16-14 11:00 AM	TURB										
HAR2-OH-4-OH-6-TS-2-3 LP Turbine Inspection & Seal & Prep for Bead Blast - Remove Horizontal Bolting AS NEEDED		6420916	2.0h	Jan-16-14 11:00 AM	Jan-16-14 08:00 PM	TURB										
A14510	LP TURBINE - BLAST HORIZONTAL JOINT	6420916	3.0h	Jan-16-14 01:00 PM	Jan-16-14 04:00 PM	TURB										
A14520	LP TURBINE - CLEAN & HONE ALL JOINT SURFACES	6420916	60.0h	Jan-16-14 04:00 PM	Jan-21-14 08:00 AM	TURB										
A14530	LP TURBINE - BEAD BLAST ALL SMALLER BOLTING & HARDWARE	6420916	20.0h	Jan-16-14 04:00 PM	Jan-17-14 04:00 PM	TURB										
A14540	LP TURBINE - CROSSOVER, LAY ON SIDE FOR INSP.-INSPECT TURNING VANES	6420916	3.0h	Jan-17-14 04:00 PM	Jan-17-14 07:00 PM	TURB										
A14550	LP TURBINE - AFTER INSPECTION SET UPRIGHT	6420916	1.0h	Jan-17-14 07:00 PM	Jan-17-14 08:00 PM	TURB										
A14560	LP TURBINE - ASSIST IN SAND BLASTING	6420916	10.0h	Jan-17-14 08:00 PM	Jan-18-14 01:00 AM	TURB										
A14570	LP TURBINE - REMOVE PLYWOOD, CLEAN UP HORIZONTAL JNT AFTER SANDBLASTING	6420916	9.0h	Jan-18-14 01:00 PM	Jan-20-14 11:00 AM	TURB										
A14580	LP TURBINE - VACUUM OUT ALL BOLT HOLES	6420916	1.0h	Jan-20-14 11:00 AM	Jan-20-14 12:00 PM	TURB										
HAR2-OH-4-OH-6-TS-2-4 LP Turbine Reassembly		786.0h	Jan-20-14 12:00 PM	Mar-11-14 00:00 PM	Mar-11-14 12:00 PM	TURB										
A14590	LP TURBINE - INSTALL ALL HORIZONTAL JOINT BOLTS	6420953	3.0h	Jan-20-14 12:00 PM	Jan-20-14 03:00 PM	TURB										
A14600	LP TURBINE - INSTALL ALL LOWER BLADE RINGS -INSTALL #1 LOWER CYLINDER BASE	6420953	6.0h	Jan-20-14 03:00 PM	Jan-20-14 09:00 PM	TURB										
A14610	LP TURBINE - INSTALL GOVERNOR END LOWER BLADE RINGS	6420953	6.0h	Jan-20-14 09:00 PM	Jan-21-14 03:00 AM	TURB										
A14620	LP TURBINE - INSTALL GENERATOR END LOWER BLADE RINGS	6420953	6.0h	Jan-21-14 01:00 PM	Jan-21-14 07:00 PM	TURB										
A14630	LP TURBINE - INSTALL INLET FLOW GUIDE, LOWER	6420953	6.0h	Jan-21-14 01:00 PM	Jan-22-14 01:00 AM	TURB										
A14640	LP TURBINE - INSTALL LOWER GLAND SEALS (BOTH ENDS)	6420953	6.0h	Jan-21-14 07:00 PM	Jan-22-14 01:00 AM	TURB										
A14650	LP TURBINE - INSTALL LOWER HALF BRGS #3 & #4-INSTALL LOWER HALF OIL SEALS (BOTH ENDS)	6420953	15.0h	Jan-22-14 01:00 AM	Jan-22-14 08:00 PM	TURB										
A14660	LP TURBINE - RIG TO INSTALL ROTOR	6420953	6.0h	Feb-17-14 12:00 AM	Feb-17-14 02:00 AM	TURB										
A14670	LP TURBINE - TAKE ALL CLEARANCES & RECORD	6420953	0.0h	Feb-17-14 10:00 AM	Feb-17-14 06:00 PM	TURB										
A14680	LP TURBINE - CORRECT AS NEEDED	6420953	8.0h	Feb-17-14 06:00 PM	Feb-18-14 02:00 AM	TURB										
A14690	LP TURBINE - INSTALL ALL UPPER BLADE RINGS -INSTALL GOVERNOR END BLADE RINGS & BOLTING	6420953	8.0h	Feb-18-14 02:00 AM	Feb-18-14 08:00 PM	TURB										
A14700	LP TURBINE - INSTALL GENERATOR END BLADE RINGS & BOLTING	6420953	6.0h	Feb-18-14 08:00 PM	Feb-19-14 02:00 AM	TURB										
A14710	LP TURBINE - INSTALL INLET FLOW GUIDE & BOLTING	6420953	6.0h	Feb-19-14 02:00 AM	Feb-19-14 12:00 PM	TURB										
A14720	LP TURBINE - INSTALL #1 CYLINDER COVER & BOLTING	6420953	6.0h	Feb-19-14 12:00 PM	Feb-19-14 06:00 PM	TURB										
A14730	LP TURBINE - INSTALL HEAT SHIELD	6420953	6.0h	Feb-19-14 06:00 PM	Feb-20-14 12:00 AM	TURB										
A14740	LP TURBINE - INSTALL ADAPTER, INNER EXPANSION JOINT & KEYS	6420953	30.0h	Feb-20-14 12:00 AM	Feb-21-14 02:00 PM	TURB										
A14750	LP TURBINE - INSTALL #2 CYLINDER COVER-CHECK L-0 BLADE TIP CLEARANCES	6420953	15.0h	Feb-21-14 02:00 PM	Feb-22-14 12:00 PM	TURB										
A14760	LP TURBINE - INSTALL OUTER COVER	6420953	20.0h	Feb-22-14 12:00 PM	Feb-24-14 09:00 PM	TURB										
A14770	LP TURBINE - INSTALL KEYS IN OUTER COVER	6420953	5.0h	Feb-24-14 09:00 PM	Feb-25-14 02:00 AM	TURB										
A14780	LP TURBINE - INSTALL BRG, UPPER #3 & #4-CHECK TOTAL TRAVELL L.P. ROTOR.	6420953	25.0h	Feb-27-14 07:00 PM	Mar-01-14 04:00 PM	TURB										
A14790	LP TURBINE - CHECK ALIGNMENT (CORRECT AS NEEDED)	6420953	3.0h	Mar-01-14 04:00 PM	Mar-10-14 07:00 PM	TURB										
A14800	LP TURBINE - INSTALL BULLGEAR & COUPLING BOLTS=INSTALL COUPLING SPLASH GUARD, LP TO GEN	6420953	1.0h	Mar-10-14 07:00 PM	Mar-10-14 08:00 PM	TURB										
A14810	LP TURBINE - INSTALL BEARING OIL SEALS, UPPER	6420953	1.0h	Mar-10-14 08:00 PM	Mar-10-14 09:00 PM	TURB										
A14820	LP TURBINE - ADJUST OIL SEALS AS REQUIRED	6420953	2.0h	Mar-10-14 09:00 PM	Mar-10-14 11:00 PM	TURB										
A14830	LP TURBINE - INSTALL GLAND SEAL, UPPER	6420953	1.0h	Mar-10-14 11:00 PM	Mar-11-14 12:00 AM	TURB										
A14840	LP TURBINE - ADJUST GLAND SEALS AS REQUIRED	6420953	2.0h	Mar-11-14 12:00 AM	Mar-11-14 03:00 AM	TURB										
A14850	LP TURBINE - RECORD ALL CLEARANCES	6420953	1.0h	Mar-11-14 02:00 AM	Page 3 of 38	TASK filter: All Activities										
A14860	LP TURBINE - INSTALL SPACER & BOLTING, HP TO LP=INSTALL COUPLING SPLASH GUARD	6420953	1.0h	Mar-11-14 03:00 AM												

© Oracle Corporation

Harrington Station Maintenance Schedules

Harrington Unit 2 OVH HP/IP, LP, Gen		PROJ-S-01 Complete Schedule						Jan-10-14 04:25 PM												
Activity ID	Activity Name	Maximo Work Order	Start Duration	Remaining Duration	Finish	Responsible Crew	January 2014	February 2014	March 2014	06	13	20	27	03	10	17	24	03	10	17
A14870	LPTURBINE - INSTALL BEARING OIL SEALS	6420953	1.0h	Mar-11-14 07:00 AM	Mar-11-14 08:00 AM	TURB														
A14880	LPTURBINE - ADJUST OIL SEALS AS REQUIRED	6420953	1.0h	Mar-11-14 08:00 AM	Mar-11-14 09:00 AM	TURB														
A14880	LPTURBINE - ADJUST GLAND SEAL, UPPER	6420953	1.0h	Mar-11-14 08:00 AM	Mar-11-14 10:00 AM	TURB														
A14890	LPTURBINE - ADJUST GLAND SEALS AS REQUIRED	6420953	1.0h	Mar-11-14 10:00 AM	Mar-11-14 11:00 AM	TURB														
A14910	LPTURBINE - RECORD CLEARANCES	6420953	1.0h	Mar-11-14 11:00 AM	Mar-11-14 12:00 PM	TURB														
A14920	LPTURBINE - INSTALL #2 & #3 COUPLING COVERS-CHECK, SET, & RECORD CLEARANCES	6420953	6.0h	Mar-11-14 12:00 PM	Mar-11-14 06:00 PM	TURB														
A14930	LPTURBINE - INSTALL #4 & #5 COUPLING COVERS-CHECK, SET & RECORD CLEARANCES	6420953	8.0h	Mar-11-14 06:00 PM	Mar-11-14 12:00 PM	TURB														
A14980	LPTURBINE - INSTALL L.P. MANHOLE COVERS	6420953	2.0h	Mar-11-14 08:00 PM	Mar-11-14 10:00 PM*	TURB														
HAR2-OH-4-OH-6-TS-3 HP-IP Turbine Inspection		6420953	45.0h	Jan-18-14 02:00 PM	Mar-12-14 03:00 PM															
A2120	HP/IP - REMOVE MAIN STEAM BOLTING	6420942	33.0h	Jan-08-14 02:00 PM	Jan-08-14 03:00 PM															
A2130	HP/IP - REMOVE GOVERNOR PEDESTAL COVER	6420942	3.0h	Jan-09-14 02:00 PM	Jan-09-14 03:00 PM															
A2190	HP/IP - COUPLING COVERS - CHECK & RECORD THRUST BEARING CLEARANCE & ROTOR POSITION	6420942	2.0h	Jan-10-14 07:00 AM	Jan-10-14 08:00 AM															
A2230	HP/IP - REMOVE TOP-HALF OF THRUST BEARING COVER	6420998	4.0h	Jan-10-14 08:00 AM	Jan-10-14 09:00 AM															
A2240	HP/IP - REMOVE THRUST SHOES & ROCKER ASSEMBLIES	6420998	4.0h	Jan-10-14 08:00 AM	Jan-10-14 09:00 AM															
A2250	HP/IP - REMOVE TOP HALVES OF #4 & #2 BEARINGS	6420998	2.0h	Jan-10-14 06:00 PM	Jan-10-14 07:00 PM															
A2350	HP/IP - REMOVE GOVERNOR END INNER GLAND COVERS	6420998	3.0h	Jan-10-14 07:00 PM	Jan-10-14 08:00 PM															
A2360	HP/IP - REMOVE GENERATOR END INNER GLAND COVERS	6420998	3.0h	Jan-10-14 08:00 PM	Jan-10-14 09:00 PM															
A2380	HP/IP - REMOVE GENERATOR END OUTER GLAND PIPING	6420998	2.0h	Jan-11-14 06:00 AM	Jan-11-14 07:00 AM															
A2310	HP/IP - REMOVE GOVERNOR END OUTER GLAND PIPING	6420998	2.0h	Jan-11-14 06:00 AM	Jan-11-14 07:00 AM															
A2320	HP/IP - REMOVE GOVERNOR END OUTER GLAND	6420998	4.0h	Jan-11-14 10:00 AM	Jan-11-14 12:00 PM															
A2320	HP/IP - REMOVE TOP OF MAIN OIL PUMP	6420998	1.0h	Jan-11-14 12:00 PM	Jan-11-14 03:00 PM															
A2330	HP/IP - REMOVE OUTER CYLINDER AND BOLTING	6420998	20.0h	Jan-13-14 12:00 AM	Jan-14-14 12:00 AM															
A2220	HP/IP - CHECK & RECORD MAIN OIL PUMP RING CLEARANCE	6420998	1.0h	Jan-14-14 01:00 AM	Feb-28-14 12:00 PM															
A2370	HP/IP - REMOVE IP DUMMY RING COVER	6421032	4.0h	Jan-14-14 01:00 AM	Jan-14-14 08:00 AM															
A2380	HP/IP - REMOVE IP INNER CYLINDER COVER	6421032	4.0h	Jan-14-14 08:00 AM	Jan-14-14 09:00 PM															
A2400	HP/IP - REMOVE HP INNER CYLINDER COVER	6421032	4.0h	Jan-14-14 09:00 PM	Jan-14-14 09:00 PM															
A2410	HP/IP - REMOVE #1 IP BLADE RING COVER	6421032	4.0h	Jan-15-14 01:00 AM	Jan-15-14 08:00 PM															
A2420	HP/IP - REMOVE HP BLADE RING COVER	6421032	4.0h	Jan-15-14 01:00 AM	Jan-15-14 09:00 AM															
A2430	HP/IP - REMOVE IP DUMMY RING COVER	6421032	4.0h	Jan-15-14 09:00 AM	Jan-15-14 09:00 PM															
A2440	HP/IP - REMOVE SEAL RINGS FROM #1 EXT. COVER	6421032	4.0h	Jan-15-14 09:00 PM	Jan-15-14 09:00 PM															
A2460	HP/IP - REMOVE SEAL RINGS FROM #2 EXT. COVER	6421032	2.0h	Jan-17-14 01:00 AM	Jan-17-14 03:00 AM															
A2470	HP/IP - RECORD AS FOUND CLEARANCES--RADIAL ONLY	6421032	4.0h	Jan-17-14 07:00 AM	Jan-17-14 09:00 AM															
A2480	HP/IP - RIG & REMOVE ROTOR	6421032	4.0h	Jan-17-14 08:00 AM	Jan-17-14 11:00 AM															
A3400	HP/IP - Topless Alignment As Found	6421032	12.0h	Jan-16-14 08:00 AM	Jan-16-14 11:00 PM															
A2490	HP/IP - LOSEN ALL LINER SUPPORT SCREWS ON BLADE RING BASES	6421032	2.0h	Jan-16-14 09:00 PM	Jan-17-14 01:00 PM															
A2500	HP/IP - REMOVE HP DUMMY RING BASE	6421032	2.0h	Jan-17-14 11:00 PM	Jan-18-14 01:00 AM															
A2510	HP/IP - REMOVE IP DUMMY RING BASE	6421032	2.0h	Jan-17-14 01:00 AM	Jan-17-14 03:00 AM															
A2520	HP/IP - REMOVE HP BLADE RING BASE	6421032	2.0h	Jan-17-14 07:00 AM	Jan-17-14 09:00 AM															
A2530	HP/IP - REMOVE #1 IP BLADE RING BASE	6421032	2.0h	Jan-17-14 08:00 AM	Jan-17-14 11:00 AM															
A2540	HP/IP - REMOVE IP INNER CYLINDER BASE	6421032	2.0h	Jan-17-14 11:00 AM	Jan-17-14 01:00 PM															
A2550	HP/IP - REMOVE IP INNER CYLINDER BASE	6421032	2.0h	Jan-17-14 01:00 PM	Jan-20-14 07:00 PM															
A2560	HP/IP - REMOVE DUMMY RING BASE	6421032	2.0h	Jan-20-14 07:00 PM	Jan-20-14 07:00 PM															

Page 4 of 38

TASK filter: All Activities

Harrington Station Maintenance Schedules

Harrington Unit 2 OVH HP/IP, LP, Gen		PROJ-S-01 Complete Schedule						Jan-10-14 04:25 PM					
Activity ID	Activity Name	Maximo Work Order	Start Duration	Remaining Duration	Finish	Responsibility Crew	January 2014	February 2014	March 2014	April 2014	May 2014	June 2014	
A3380	HP/IP Nozzle Block and Inner Cylinder Cover Off-Site NDE Inspection	575.0h	Jan-20-14 05:00 PM*	Feb-26-14 12:00 PM	Feb-14-12:00 PM	TURB	06 13	20 27	03 10	17 24	03 10	17 24	
A3380	HP/IP Nozzle Block and Cylinder Base Off-Site NDE Inspection	389.0h	Jan-20-14 05:00 PM*	Feb-26-14 12:00 PM	Feb-14-12:00 PM	TURB	06 13	20 27	03 10	17 24	03 10	17 24	
A3380	Ship HP/IP Nozzle Block and Inner Cylinder Cover Off-Site NDE Inspection	0.0h	Jan-20-14 05:00 PM	Feb-26-14 12:00 PM	Feb-14-12:00 PM	TURB	06 13	20 27	03 10	17 24	03 10	17 24	
A3410	Ship HP/IP Nozzle Block and Cylinder Base Off-Site NDE Inspection	0.0h	Jan-20-14 05:00 PM	Feb-26-14 12:00 PM	Feb-14-12:00 PM	TURB	06 13	20 27	03 10	17 24	03 10	17 24	
A2570	HP/IP - REMOVE SEALINGS--IP BASE	6421032	2.0h	Jan-20-14 07:00 PM	Jan-20-14 09:00 PM	TURB	06 13	20 27	03 10	17 24	03 10	17 24	
A2580	HP/IP - REMOVE GENERATOR END OUTTER GLAND BASE	6421032	3.0h	Jan-20-14 08:00 PM	Jan-21-14 12:00 AM	TURB	06 13	20 27	03 10	17 24	03 10	17 24	
A2590	HP/IP - REMOVE GOVERNOR END INNER GLAND BASE	6421032	3.0h	Jan-21-14 12:00 AM	Feb-04-14 03:00 AM	TURB	06 13	20 27	03 10	17 24	03 10	17 24	
HAR2-OH-4-0H-6-TS-3 HP-IP Inspection and Cleaning		6421084	10.0h	Jan-21-14 07:00 AM	Jan-21-14 05:00 PM	TURB	06 13	20 27	03 10	17 24	03 10	17 24	
A2600	HP/IP - TAKE BELL SEAL CLEARANCES AS FOUND: BASE & COVER	6420986	1.0h	Jan-21-14 05:00 PM	Jan-21-14 06:00 PM	TURB	06 13	20 27	03 10	17 24	03 10	17 24	
A2220	HP/IP - CLEAN & OR REPLACE BELL SEALS AS NEEDED	6421084	1.0h	Jan-21-14 05:00 PM	Jan-22-14 03:00 AM	TURB	06 13	20 27	03 10	17 24	03 10	17 24	
A2610	HP/IP - FREE UP BELL SEALS AS NEEDED BASE & COVER	6421084	1.0h	Jan-21-14 05:00 PM	Jan-22-14 04:00 PM	TURB	06 13	20 27	03 10	17 24	03 10	17 24	
A2620	HP/IP - MARK & REMOVE ALL GLAND PACKING ON BASE & COVER	6421080	10.0h	Jan-22-14 07:00 AM	Jan-22-14 05:00 PM	TURB	06 13	20 27	03 10	17 24	03 10	17 24	
A2630	HP/IP - REMOVE GOVERNOR END INNER GLAND BASE	6421080	8.0h	Jan-22-14 05:00 PM	Jan-23-14 01:00 AM	TURB	06 13	20 27	03 10	17 24	03 10	17 24	
A2630	HP/IP - REMOVE GOVERNOR END INNER GLAND BASE	6420988	15.0h	Jan-23-14 01:00 AM	Jan-24-14 08:00 PM	TURB	06 13	20 27	03 10	17 24	03 10	17 24	
A2340	HP/IP - REMOVE ALL PACKINGS AS NEEDED	6420988	8.0h	Jan-23-14 08:00 PM	Jan-23-14 08:00 PM	TURB	06 13	20 27	03 10	17 24	03 10	17 24	
A2270	HP/IP - REMOVE OUTER CYLINDER BOLTING AFTER CYLINDER HAS BEEN REMOVED	6421080	2.0h	Jan-23-14 08:00 PM	Jan-23-14 10:00 PM	TURB	06 13	20 27	03 10	17 24	03 10	17 24	
A2640	HP/IP - REMOVE SUPPORT PAUDS--CONTACT TO THE SPHERICAL BORE	6421080	2.0h	Jan-23-14 10:00 PM	Jan-24-14 12:00 AM	TURB	06 13	20 27	03 10	17 24	03 10	17 24	
A2650	HP/IP - REMOVE BASE OF #2 BEARING	6421080	8.0h	Jan-24-14 12:00 AM	Jan-24-14 12:00 AM	TURB	06 13	20 27	03 10	17 24	03 10	17 24	
A2660	HP/IP - ASSIST SANDBLASTERS AS REQUIRED	6421090	8.0h	Jan-24-14 12:00 AM	Jan-24-14 04:00 PM	TURB	06 13	20 27	03 10	17 24	03 10	17 24	
A2280	HP/IP - #2 BEARING OUTER OIL-SEA TEETH NEED TO BE REPLACED AT THE NEXT HP-IP	6420986	8.0h	Jan-24-14 08:00 AM	Jan-24-14 12:00 PM	TURB	06 13	20 27	03 10	17 24	03 10	17 24	
A2670	HP/IP - ASSIST WITH NDE TESTING AS REQUIRED.	6421090	16.0h	Jan-24-14 12:00 PM	Jan-25-14 11:00 AM	TURB	06 13	20 27	03 10	17 24	03 10	17 24	
A2680	HP/IP - VACUUM BLAST - ALL SMALL HARDWARE	6421090	20.0h	Jan-25-14 11:00 AM	Jan-25-14 11:00 AM	TURB	06 13	20 27	03 10	17 24	03 10	17 24	
A2690	HP/IP - CLEAN & HONE ALL JOINT SURFACES	6421090	50.0h	Jan-25-14 11:00 AM	Jan-26-14 10:00 AM	TURB	06 13	20 27	03 10	17 24	03 10	17 24	
A2700	HP/IP - CLEAN & LUB ALL 4 SUPPORT KEYS UNDER EACH HORN	6421090	16.0h	Jan-26-14 10:00 AM	Jan-26-14 10:00 AM	TURB	06 13	20 27	03 10	17 24	03 10	17 24	
A2710	HP/IP - CLEAN & MIC #1 & #2 BEARINGS	6421090	7.0h	Jan-26-14 10:00 AM	Jan-26-14 10:00 AM	TURB	06 13	20 27	03 10	17 24	03 10	17 24	
A2720	HP/IP - RECORD READINGS	6421090	1.0h	Jan-26-14 10:00 AM	Jan-26-14 11:00 AM	TURB	06 13	20 27	03 10	17 24	03 10	17 24	
A2730	HP/IP - CLEAN & MIC #1 & #2 BEARING JOURNALS	6421090	3.0h	Jan-26-14 11:00 AM	Jan-26-14 11:00 AM	TURB	06 13	20 27	03 10	17 24	03 10	17 24	
A2740	HP/IP - RECORD READINGS	6421090	2.0h	Jan-26-14 11:00 AM	Jan-26-14 11:00 AM	TURB	06 13	20 27	03 10	17 24	03 10	17 24	
A2750	HP/IP - CLEAN & LUB ALL 4 SUPPORT KEYS UNDER EACH HORN	6421090	16.0h	Jan-26-14 11:00 AM	Jan-26-14 11:00 AM	TURB	06 13	20 27	03 10	17 24	03 10	17 24	
A2760	HP/IP - MAKE ALL GASKETS AS NEEDED	6421090	8.0h	Jan-26-14 11:00 AM	Jan-26-14 09:00 PM	TURB	06 13	20 27	03 10	17 24	03 10	17 24	
A2770	HP/IP - REMOVE TONGUE & GROOVE FITS AS NEEDED	6421090	36.0h	Jan-30-14 09:00 AM	Feb-01-14 08:00 AM	TURB	06 13	20 27	03 10	17 24	03 10	17 24	
A2780	HP/IP - REMOVE SPRINGS BACK SEALS FROM BLADE RINGS	6421090	30.0h	Feb-01-14 08:00 AM	Feb-04-14 03:00 AM	TURB	06 13	20 27	03 10	17 24	03 10	17 24	
A2790	HP/IP - INSPECT & REPAIR SEALS AS NEEDED	6421090	20.0h	Feb-01-14 08:00 AM	Feb-04-14 05:00 PM	TURB	06 13	20 27	03 10	17 24	03 10	17 24	
HAR2-OH-4-0H-6-TS-3 HP-IP Turbine Reassembly		578.0h	Feb-03-14 05:00 PM	Mar-12-14 03:00 PM	Feb-03-14 05:00 PM	TURB	06 13	20 27	03 10	17 24	03 10	17 24	
A2800	HP/IP - AFTER REPAIRS, INSTALL SPRING BACK SEALS	6421147	5.0h	Feb-03-14 05:00 PM	Feb-03-14 05:00 PM	TURB	06 13	20 27	03 10	17 24	03 10	17 24	
A2810	HP/IP - INSTALL GLAND SEAL PACKING IN GOVERNOR END	6421147	3.0h	Feb-04-14 10:00 PM	Feb-04-14 11:00 AM	TURB	06 13	20 27	03 10	17 24	03 10	17 24	
A2820	HP/IP - INSTALL GLAND SEAL PACKING IN GENERATOR END	6421147	3.0h	Feb-03-14 10:00 PM	Feb-04-14 01:00 AM	TURB	06 13	20 27	03 10	17 24	03 10	17 24	
A2830	HP/IP - INSTALL GOVERNOR END INNER GLAND BASES	6421147	2.0h	Feb-04-14 01:00 AM	Feb-04-14 03:00 AM	TURB	06 13	20 27	03 10	17 24	03 10	17 24	
A2840	HP/IP - INSTALL GENERATOR END INNER GLAND BASES	6421147	2.0h	Feb-04-14 01:00 AM	Feb-04-14 03:00 AM	TURB	06 13	20 27	03 10	17 24	03 10	17 24	
A2850	HP/IP - INSTALL #2 BLADE RING BASE	6421147	2.0h	Feb-04-14 07:00 AM	Feb-04-14 09:00 AM	TURB	06 13	20 27	03 10	17 24	03 10	17 24	
A2860	HP/IP - INSTALL #2 BLADE RING BASE	6421147	2.0h	Feb-04-14 11:00 AM	Feb-04-14 01:00 PM	TURB	06 13	20 27	03 10	17 24	03 10	17 24	
A2870	HP/IP - INSTALL #1 INNER CYLINDER BASE	6421147	3.0h	Feb-14-14 12:00 PM	Feb-14-14 03:00 PM	TURB	06 13	20 27	03 10	17 24	03 10	17 24	
A2880	HP/IP - INSTALL #1 INNER CYLINDER BASE	6421147	0.0h	Feb-14-14 12:00 PM	Feb-14-14 20:00 PM	TURB	06 13	20 27	03 10	17 24	03 10	17 24	
A2890	HP/IP - INSTALL #1 INNER CYLINDER BASE	6421147	3.0h	Feb-26-14 12:00 PM	Feb-26-14 20:00 PM	TURB	06 13	20 27	03 10	17 24	03 10	17 24	
A2900	HP/IP - INSTALL #1 INNER CYLINDER BASE	6421147	0.0h	Feb-26-14 20:00 PM	Feb-26-14 20:00 PM	TURB	06 13	20 27	03 10	17 24	03 10	17 24	
Project Baseline Bar		◆	Remaining Work	◆	M	TASK filter: All Activities						© Oracle Corporation	
Actual Work		■	Critical Remaining Work	■	S								

Harrington Station Maintenance Schedules

Harrington Unit 2 OVH HP/IP, LP, Gen		PROJ-S-01 Complete Schedule						Jan-10-14 04:25 PM								
Activity ID	Activity Name	Maximo Work Order	Start Duration	Remaining Duration	Finish	Responsible Crew	January 2014	February 2014	March 2014	06	13	20	27	03	10	17
A2910	HP/IP - INSTALL HP BLADE RING BASE	6421147	2.0h	Feb-26-14 05:00 PM	Feb-26-14 07:00 PM	TURB										
A2920	HP/IP - INSTALL IP DUMMY RING BASE	6421147	2.0h	Feb-26-14 07:00 PM	Feb-26-14 09:00 PM	TURB										
A2930	HP/IP - INSTALL ALL LINER SUPPORT SCREWS	6421147	2.0h	Feb-26-14 08:00 PM	Feb-26-14 11:00 PM	TURB										
A2940	HP/IP - INSTALL BASES OF #1 & #2 BEARINGS	6421147	4.0h	Feb-26-14 11:00 PM	Feb-27-14 03:00 AM	TURB										
A2950	HP/IP - INSTALL BASE OIL SEALS FOR #1 & #2 BEARINGS	6421147	4.0h	Feb-26-14 11:00 PM	Feb-27-14 03:00 AM	TURB										
A2960	HP/IP - INSTALL BASE OIL SEALS FOR #1 & #2 BEARINGS	6421147	3.0h	Feb-27-14 07:00 AM	Feb-27-14 10:00 AM	TURB										
A2970	HP/IP - RIG & INSTALL HP ROTOR	6421147	24.0h	Feb-27-14 10:00 AM	Feb-28-14 02:00 PM	TURB										
A2980	HP/IP - SET BASE OIL SEALS ON #1 & #2 BEARINGS	6421147	2.0h	Feb-28-14 05:00 PM	Feb-28-14 07:00 PM	TURB										
A2990	HP/IP - INSTALL TOP ON #1 & #2 BEARINGS	6421147	4.0h	Feb-28-14 07:00 PM	Feb-28-14 09:00 PM	TURB										
A3000	HP/IP - CHECK & RECORD ROTOR BORE CLEARANCES	6421147	3.0h	Feb-28-14 08:00 PM	Feb-28-14 11:00 PM	TURB										
A3010	HP/IP - CHECK & RECORD HP ROTOR TOTAL TRAVEL	6421147	2.0h	Feb-28-14 11:00 PM	Mar-01-14 03:00 AM	TURB										
A3020	HP/IP - SET ROTOR ON K POSITION	6421147	2.0h	Mar-01-14 08:00 AM	Mar-01-14 10:00 AM	TURB										
A3030	HP/IP - CHART ROTOR BLADE TIP CLEARANCES	6421147	3.0h	Mar-01-14 10:00 AM	Mar-01-14 01:30 PM	TURB										
A3040	HP/IP - INSTALL IP DUMMY RING COVER	6421147	4.0h	Mar-01-14 01:30 PM	Mar-01-14 02:00 AM	TURB										
A3050	HP/IP - INSTALL LP DUMMY RING COVER	6421147	4.0h	Mar-01-14 02:00 AM	Mar-03-14 02:00 AM	TURB										
A3060	HP/IP - INSTALL HP BLADE RING COVER	6421147	4.0h	Mar-03-14 10:00 AM	Mar-03-14 02:00 PM	TURB										
A3070	HP/IP - INSTALL #1 IP BLADE RING COVER	6421147	4.0h	Mar-03-14 02:00 PM	Mar-03-14 06:00 PM	TURB										
A3080	HP/IP - INSTALL HP INNER CYLINDER COVER	6421147	4.0h	Mar-03-14 06:00 PM	Mar-03-14 10:00 PM	TURB										
A3080	HP/IP - INSTALL IP INNER CYLINDER COVER	6421147	4.0h	Mar-03-14 10:00 PM	Mar-04-14 02:00 AM	TURB										
A3100	HP/IP - INSTALL #2 IP BLADE RING COVER	6421147	4.0h	Mar-04-14 02:00 AM	Mar-04-14 03:00 AM	TURB										
A3110	HP/IP - INSTALL LP DUMMY RING COVER	6421147	4.0h	Mar-04-14 10:00 AM	Mar-04-14 12:00 AM	TURB										
A3120	HP/IP - INSTALL GOVERNOR END OUTER GLAND COVER	6421221	4.0h	Mar-04-14 12:00 AM	Mar-04-14 02:00 PM	TURB										
A3130	HP/IP - INSTALL GENERATOR END INNER GLAND COVER	6421221	4.0h	Mar-04-14 02:00 PM	Mar-04-14 06:00 PM	TURB										
A3140	HP/IP - INSTALL BOLTING BEFORE INSTALLING COVER	6421221	20.0h	Mar-04-14 06:00 PM	Mar-05-14 09:00 PM	TURB										
A3150	HP/IP - INSTALL HP OUTTER CYLINDER COVER	6421221	20.0h	Mar-05-14 09:00 PM	Mar-06-14 01:00 PM	TURB										
A3160	HP/IP - INSTALL SEAL RINGS IN HP OUTER COVER #1 EXT.	6421221	2.0h	Mar-06-14 10:00 PM	Mar-07-14 12:00 AM	TURB										
A3170	HP/IP - SET GOVERNOR END OUTER GLAND COVER	6421221	3.0h	Mar-07-14 12:00 AM	Mar-07-14 03:00 AM	TURB										
A3180	HP/IP - BOLT UP GOVERNOR END OUTER GLAND COVER	6421221	3.0h	Mar-07-14 03:00 AM	Mar-07-14 07:00 AM	TURB										
A3190	HP/IP - WAKE UP GOVERNOR END OUTER GLAND PIPING	6421221	3.0h	Mar-07-14 07:00 AM	Mar-07-14 10:00 PM	TURB										
A3200	HP/IP - SET GENERATOR END OUTER GLAND COVER	6421221	3.0h	Mar-07-14 10:00 PM	Mar-07-14 12:00 AM	TURB										
A3210	HP/IP - BOLT UP GENERATOR END OUTER GLAND COVER	6421221	3.0h	Mar-07-14 12:00 AM	Mar-07-14 03:00 AM	TURB										
A3220	HP/IP - WAKE UP GENERATOR END OUTER GLAND PIPING	6421221	20.0h	Mar-07-14 03:00 AM	Mar-07-14 07:00 AM	TURB										
A3230	HP/IP - INSTALL BLANKETS ON HP	6421268	20.0h	Mar-07-14 07:00 AM	Mar-07-14 11:00 AM	TURB										
A3240	HP/IP - CHECK ALIGNMENT, CORRECT AS NEEDED	6421268	4.0h	Mar-07-14 11:00 AM	Mar-08-14 02:00 PM	TURB										
A3250	HP/IP - MAKE UP MAIN STEAM INLET FLANGES	6421268	10.0h	Mar-07-14 02:00 PM	Mar-07-14 04:00 PM	TURB										
A3260	HP/IP - INSTALL THRUST BEARING AN INTERNAL PARTS	6421268	16.0h	Mar-08-14 04:00 PM	Mar-07-14 07:30 PM	TURB										
A3270	HP/IP - CHECK & RECORD THRUST CLEARANCE & CORRECT AS NEEDED	6421268	4.0h	Mar-07-14 07:30 PM	Mar-07-14 09:00 PM	TURB										
A3280	HP/IP - ASSEMBLE HP-LP COUPLING	6421280	6.0h	Mar-07-14 09:00 PM	Mar-11-14 03:00 AM	TURB										
A3280	HP/IP - BOLT UP COUPLINGS	6421280	4.0h	Mar-11-14 03:00 AM	Mar-11-14 11:00 AM	TURB										
A3290	HP/IP - CHECK HP-LP COUPLING RUN OUT	6421280	4.0h	Mar-11-14 11:00 AM	Mar-11-14 03:00 PM	TURB										
A3300	HP/IP - INSTALL COUPLING COVERS	6421280	2.0h	Mar-11-14 03:00 PM	Mar-11-14 05:00 PM	TURB										
A3310	HP/IP - CHECK PINCH ON #2 BEARING-CORRECT AS NEEDED	6421280	2.0h	Mar-11-14 05:00 PM	Mar-11-14 07:30 PM	TURB										
A3320	HP/IP - SET LOWER OIL SEALS	6421280	2.0h	Mar-11-14 07:30 PM	Mar-12-14 09:00 AM	TURB										
A3330	HP/IP - INSTALL CROSSOVER PIPE	6421280	10.0h	Mar-11-14 07:00 PM	Mar-12-14 03:00 AM	TURB										
A3340	HP/IP - INSTALL MAIN OIL PUMP RINGS	6421280	8.0h	Mar-11-14 07:00 PM	Mar-12-14 11:00 AM	TURB										
A3350	HP/IP - INSTALL OIL PUMP COVER	6421280	4.0h	Mar-12-14 07:00 AM	Mar-12-14 11:00 AM	TURB										

TASK filter: All Activities

© Oracle Corporation

Page 6 of 38

Harrington Station Maintenance Schedules

Harrington Unit 2 OVH HP/IP, LP, Gen		PROJ-01 Complete Schedule						Jan-10-14 04:25 PM								
Activity ID	Activity Name	Maximo Work Order	Start Duration	Remaining Duration	Finish	Responsible Crew	January 2014	February 2014	March 2014	06	13	20	27	03	10	17
A3370	HPIP - INSTALL GOVERNOR PEDESTAL COVER	6421280	4.0h	Mar-12-14 11:00 AM	Mar-12-14 03:00 PM*	TURB										
HAR2-OH-4-OH-6-Ts-3 Turbine Routine Maintenance & Controls																
A11880	H2 INSPECT / OVERHAUL EXTRACTION NON-RETURN VALVES (TURBINE OVERHAUL) - REMOVE THE LID	6425240	362.8h	Jan-20-14 05:00 PM	Feb-12-14 03:45 PM											
A11880	H2 INSPECT / OVERHAUL EXTRACTION NON-RETURN VALVES (TURBINE OVERHAUL) - CHECK INTERNAL DISK AND BUSHINGS	6425240	4.0h	Jan-20-14 05:00 PM	Jan-20-14 09:00 PM	SHOP										
A11900	H2 INSPECT / OVERHAUL EXTRACTION NON-RETURN VALVES (TURBINE OVERHAUL) - REPAIR OR REPLACE WORN PARTS	6425240	0.5h	Jan-21-14 01:00 AM	Jan-21-14 01:30 AM	SHOP										
A11910	H2 INSPECT / OVERHAUL EXTRACTION NON-RETURN VALVES (TURBINE OVERHAUL) - CHECK PACKING	6425240	4.0h	Jan-21-14 01:30 AM	Jan-21-14 09:30 AM	SHOP										
A11920	H2 INSPECT / OVERHAUL EXTRACTION NON-RETURN VALVES (TURBINE OVERHAUL) - REPACK AS NEEDED	6425240	0.3h	Jan-21-14 09:30 AM	Jan-21-14 09:45 AM	SHOP										
A11630	H2 OUTAGE - REPACK TURBINE AREA STEAM VALVES (2ND HALF: 6 YR INTERVAL)	6424827	20.0h	Jan-21-14 09:45 AM	Jan-22-14 09:45 AM	TURB										
A8930	H2_OUTAGE - REPACK TURBINE AREA STEAM VALVES (1ST HALF: 6 YR INTERVAL)	6424673	0.0h	Jan-22-14 09:45 AM	Jan-22-14 01:45 PM	TURB										
A8940	H2_OUTAGE - CLEAN & INSPECT TURBINE OIL TANK - DRAIN OIL FROM TANK	6421497	4.0h	Jan-22-14 09:45 AM	Jan-23-14 01:45 PM	TURB										
A8950	H2_OUTAGE - CLEAN & INSPECT TURBINE OIL TANK - CLEAN AND INSPECT TANK	6421497	12.0h	Jan-22-14 09:45 AM	Jan-23-14 01:45 AM	TURB										
A8960	H2_OUTAGE - CLEAN & INSPECT TURBINE OIL TANK - FILL TANK WITH OIL	6421497	4.0h	Jan-23-14 01:45 AM	Jan-23-14 09:45 AM	TURB										
A8970	H2_OUTAGE - CHANGE MBPP OIL FILTERS - REMOVE AND REPLACE MAIN BOILER FEED PUMP OIL FILTERS	6425102	8.0h	Jan-23-14 09:45 AM	Jan-23-14 09:45 PM	TURB										
A8980	H2_OUTAGE - CHANGE MBPP OIL FILTERS - GREASE MBPP GOVERNOR END COUPLING	6425102	2.0h	Jan-23-14 09:45 PM	Jan-23-14 07:45 PM	TURB										
A8980	H2_OUTAGE - CLEAN OR REPLACE EH. SYSTEM FILTERS - CLEAN OR REPLACE EH. SYSTEM FILTERS	6421492	20.0h	Jan-23-14 07:45 PM	Jan-24-14 07:45 PM	TURB										
A10770	H2_OUTAGE - TURBINE SUPERVISORY - CALIBRATE TURBINE SUPERVISORY	642152	64.0h	Jan-24-14 07:45 PM	Jan-28-14 03:45 PM	I&C										
A10730	H2_OUTAGE - HEATER LEVEL CONTROLS - CALIBRATE HEATER LEVEL TRANSMITTERS	6420581	62.0h	Jan-29-14 03:45 PM	Feb-03-14 09:45 AM	I&C										
A11830	H2 TURBINE HIGH PRESSURE TRANSMITTERS - CALIBRATE	6421546	12.0h	Feb-03-14 09:45 AM	Feb-03-14 09:45 PM	I&C										
A11850	H2_OUTAGE - TURBINE HIGH PRESS SWITCHES	6421289	12.0h	Feb-03-14 09:45 PM	Feb-04-14 01:45 PM	I&C										
A12070	H2_OUTAGE - TURBINE VALVES - STROKE, CALIBRATE AND CHECK PACKING	6421286	30.0h	Feb-04-14 01:45 PM	Feb-05-14 01:45 PM	I&C										
A12080	H2_OUTAGE - FRONT STANDARD - CLEAN INSTRUMENTATION ON FRONT STANDARD	6421301	16.0h	Feb-05-14 01:45 PM	Feb-06-14 07:45 PM	I&C										
A11810	H2_OUTAGE - TURBINE WOODWARD POWER TRANSDUCERS	6422173	24.0h	Feb-06-14 07:45 PM	Feb-07-14 07:45 PM	I&C										
A10670	H2_OUTAGE - TURBINE GENERATOR INSTRUMENTS - REMOVE AND INSTALL INSTRUMENTS AS NEEDED FOR MAINTENANCE	6420801	50.0h	Feb-07-14 11:45 PM	Feb-12-14 01:45 AM	I&C										
A8860	H2_OUTAGE - CALIBRATE TURBINE VALVES - STROKE AND SET VALVES UP	6421258	10.0h	Feb-12-14 01:45 AM	Feb-12-14 03:45 PM	Ops										
HAR2-OH-4-OH-6-Ts-4 Major Generator Seal and Bracket Removal																
A12890	GENERATOR LEAD BOX-UNBOLT & REMOVE	6420531	2.0h	Jan-16-14 09:00 AM	Jan-17-14 03:00 PM											
A12900	EXCITER HOUSE - REMOVE RED IRON	6420531	3.0h	Jan-16-14 09:00 AM	Jan-16-14 11:00 AM	TURB										
A12920	CHECK HUB RUNOUT & RECORD	6420531	2.0h	Jan-16-14 09:00 AM	Jan-16-14 12:00 PM	TURB										
A12940	UNBOLT & REMOVE SLEEVES & BOLTS FROM EXCITER	6420531	5.0h	Jan-16-14 12:00 PM	Jan-16-14 07:00 PM	TURB										
A12850	UNBOLT & REMOVE BOLTS FROM AXIAL LEADS	6420531	3.0h	Jan-16-14 07:00 PM	Jan-17-14 01:00 AM	TURB										
A12960	REMOVE WEDGES FROM LEADS	6420531	3.0h	Jan-17-14 01:00 AM	Jan-17-14 08:00 AM	TURB										
A12970	EXCITER COUPLING GAP-CHECK & RECORD GAP READING	6420531	10.0h	Jan-17-14 01:00 AM	Jan-17-14 10:30 PM	TURB										
A12860	EXCITER-REMOVE OIL PIPING TO EXCITER, REMOVE EXCITER	6420531	85.0h	Jan-17-14 03:00 PM	Jan-22-14 12:00 PM	TURB										
HAR2-OH-4-OH-6-Ts-4 Generator Seal and Bracket Removal																
A13000	UNBOLT & START REMOVAL OF OIL PIPING	6420564	8.0h	Jan-17-14 03:00 PM	Jan-17-14 11:00 PM	TURB										
A12980	CHECK & RECORD ALIGNMENT READING	6420564	2.0h	Jan-17-14 03:00 PM	Jan-17-14 05:00 PM	TURB										
A13010	COVER ENDS OF THE PIPING	6420564	4.0h	Jan-17-14 05:00 PM	Jan-18-14 10:00 AM	TURB										
A13020	#5 BEARING OIL SEALS-UNBOLT & REMOVE	6420564	4.0h	Jan-18-14 10:00 AM	Jan-18-14 02:00 PM	TURB										
A13030	#6 BEARING OIL SEALS-UNBOLT & REMOVE	6420564	5.0h	Jan-18-14 10:00 AM	Jan-18-14 03:00 PM	TURB										
A13040	#5 BEARING BRACKET-UNBOLT & REMOVE TOP HALF OF BRACKET	6420564	5.0h	Jan-20-14 12:00 AM	Jan-20-14 09:00 AM	TURB										
A13070	#6 BEARING BRACKET-UNBOLT & REMOVE TOP HALF OF THE BRACKET	6420564	5.0h	Jan-20-14 12:00 AM	Jan-20-14 12:00 PM	TURB										
A13050	#5 HYDROGEN SEAL ON BRACKET-UNBOLT & REMOVE TOP HALF	6420564	3.0h	Jan-20-14 09:00 AM	Jan-20-14 12:00 PM	TURB										
A13080	#6 BEARING-REMOVE TOP HALF OF BEARING & SUPPORT INSULATOR	6420564	4.0h	Jan-20-14 09:00 AM	Jan-20-14 04:00 PM	TURB										
A13060	#6 HYDROGEN SEAL ON BRACKET-UNBOLT & REMOVE TOP HALF OF BRACKET	6420564	5.0h	Jan-20-14 12:00 PM	Jan-20-14 05:00 PM	TURB										
A13090	LOWER MANHOLE COVER-UNBOLT & REMOVE RED IRON UNDERNEATH GENERATOR	6420564														

TASK filter: All Activities

Page 7 of 38

© Oracle Corporation

Harrington Station Maintenance Schedules

Harrington Unit 2 OVH HP/IP, LP, Gen		PROJ-S-01 Complete Schedule						Jan-10-14 04:25 PM								
Activity ID	Activity Name	Maximo Work Order	Start Duration	Remaining Duration	Finish	Responsibility Crew	January 2014	February 2014	March 2014	06	13	20	27	03	10	17
A13100	#5 H2 SEAL RING UNBOLT & REMOVE H2 SEAL RING	6420554	2.0h	Jan-20-14 05:00 PM	Jan-20-14 07:00 PM	TURB	-	-	-	-	-	-	-	-	-	-
A13110	#6 H2 SEAL RING UNBOLT & REMOVE H2 SEAL RING	6420554	2.0h	Jan-20-14 05:00 PM	Jan-20-14 07:00 PM	TURB	-	-	-	-	-	-	-	-	-	-
A13120	#5 H2 BRACKET LOWER-RIG TOOL & REMOVE LOWER BRACKET	6420554	2.0h	Jan-20-14 07:00 PM	Jan-20-14 09:00 PM	TURB	-	-	-	-	-	-	-	-	-	-
A14050	#5 Bearing Bracket Slope Check	6420554	5.0h	Jan-20-14 07:00 PM	Jan-21-14 12:00 AM	TURB	-	-	-	-	-	-	-	-	-	-
A22300	#6 Bearing Bracket Slope Check	6420554	5.0h	Jan-21-14 12:00 AM	Jan-21-14 09:00 AM	TURB	-	-	-	-	-	-	-	-	-	-
A13130	#6 H2 BRACKET LOWER-RIG TOOL & REMOVE LOWER BRACKET	6420554	2.0h	Jan-21-14 09:00 AM	Jan-21-14 11:00 AM	TURB	-	-	-	-	-	-	-	-	-	-
A13140	INSTALL SUPPORT FOR REMOVAL OF AIR BAFFLE	6420554	4.0h	Jan-21-14 11:00 AM	Jan-21-14 03:00 PM	TURB	-	-	-	-	-	-	-	-	-	-
A13150	REMOVE TOP 3 SHROUD PIECES, REMOVE ALL BLOWER BLADES	6420554	15.0h	Jan-21-14 11:00 AM	Jan-22-14 02:00 AM	TURB	-	-	-	-	-	-	-	-	-	-
A13160	INSTALL COME-A-LONGS & SUPPORTS, LOWER BOTTOM HALF BRACKET	6420554	6.0h	Jan-22-14 02:00 AM	Jan-22-14 12:00 PM	TURB	-	-	-	-	-	-	-	-	-	-
HAR2-OH-4-OH-6-TS-4 Generator Rotor Removal		403.0h		Jan-22-14 12:00 PM		Feb-17-14 11:00 PM, HAR										
A13170	GENERATOR EE-INSTALL TOMB STONE ON ROTOR	6420584	1.0h	Jan-22-14 12:00 PM	Jan-22-14 01:00 PM	TURB	-	-	-	-	-	-	-	-	-	-
A13180	GENERATOR ROTOR-PREPARE SKID PLATE INSTALLATION	6420584	1.0h	Jan-22-14 01:00 PM	Jan-22-14 02:00 PM	TURB	-	-	-	-	-	-	-	-	-	-
A13190	INSTALL SKID PLATE & TE SHOE	6420584	4.0h	Jan-22-14 02:00 PM	Jan-22-14 06:00 PM	TURB	-	-	-	-	-	-	-	-	-	-
A13200	GENERATOR OR EE-REMOVE AIR BAFFLE & INSTALL EE SHOE ON SHAFT	6420584	3.0h	Jan-22-14 06:00 PM	Jan-22-14 09:00 PM	TURB	-	-	-	-	-	-	-	-	-	-
A13210	GENERATOR RE-LOOWER ROTOR & REMOVE #5 BEARING LOWER HALF & SUPPORT INSULATOR	6420584	3.0h	Jan-22-14 09:00 PM	Jan-23-14 02:00 PM	TURB	-	-	-	-	-	-	-	-	-	-
A13220	GENERATOR ROTOR-RIG & REMOVE ROTOR & SKID PLATE	6420584	10.0h	Jan-23-14 02:00 PM	Jan-23-14 12:00 AM	TURB	-	-	-	-	-	-	-	-	-	-
A13230	GENERATOR #6 BEARING BRACKET-RIG & REMOVE LOWER HALF BRACKET	6420584	4.0h	Jan-23-14 02:00 PM	Jan-23-14 06:00 PM	TURB	-	-	-	-	-	-	-	-	-	-
A14170	Generator Rotor On-Site NDE Inspection and Repairs	349.0h	349.0h	Jan-25-14 08:00 AM*	Feb-17-14 11:00 PM	TURB	-	-	-	-	-	-	-	-	-	-
A14980	Start On-Site Generator Rotor Inspection	6443166	0.0h	Jan-25-14 08:00 AM	Feb-03-14 10:00 AM	Mits	-	-	-	-	-	-	-	-	-	-
HAR2-OH-4-OH-6-TS-4 Generator Clean and Hone		120.0h		Jan-25-14 08:00 AM		Feb-03-14 10:00 AM										
A13240	GENERATOR OR GASKETS SURFACES-MAKE ALL GASKETS AS NEEDED	6420594	7.0h	Jan-25-14 08:00 AM	Jan-25-14 09:00 AM	TURB	-	-	-	-	-	-	-	-	-	-
A13260	CLEAN & HONE ALL SURFACES ON GENERATOR AREA	6420594	120.0h	Jan-25-14 08:00 AM	Feb-03-14 10:00 AM	TURB	-	-	-	-	-	-	-	-	-	-
A13270	MEASURE H2 SEAL RINGS, JOURNALS & BEARINGS, RECORD READINGS	6420594	12.0h	Jan-27-14 01:00 AM	Jan-27-14 05:00 PM	TURB	-	-	-	-	-	-	-	-	-	-
A13280	NDT INSPECTION	6420594	1.0h	Jan-27-14 01:00 AM	Jan-27-14 02:00 AM	TURB	-	-	-	-	-	-	-	-	-	-
A13290	GENERATOR EXCITER END-RUN AIR TEST ON RADIAL LEAD SEALS	6420594	8.0h	Jan-27-14 02:00 AM	Jan-27-14 03:30 PM	I&C	-	-	-	-	-	-	-	-	-	-
HAR2-OH-4-OH-6-TS-4 Generator Electrical Testing		105.5h		Jan-23-14 06:00 PM		Jan-30-14 03:30 PM										
A12570	REMOVE GENERATOR FLEX LINKS	6420361	4.0h	Jan-23-14 06:00 PM	Jan-23-14 10:00 PM	ELC	-	-	-	-	-	-	-	-	-	-
A12680	COIL VENT TUBE TEST	6420361	3.0h	Jan-23-14 10:00 PM	Jan-24-14 01:00 AM	ELC	-	-	-	-	-	-	-	-	-	-
A12590	MAIN LEAD BUSHING VENT TEST	6420361	1.0h	Jan-24-14 01:00 AM	Jan-24-14 02:00 AM	ELC	-	-	-	-	-	-	-	-	-	-
A12600	PARALLEL RING VENT TEST	6420361	3.0h	Jan-24-14 02:00 AM	Jan-24-14 03:00 AM	ELC	-	-	-	-	-	-	-	-	-	-
A12610	TUBE TO TUBE RESISTANCE	6420361	3.0h	Jan-24-14 03:00 AM	Jan-24-14 04:00 PM	ELC	-	-	-	-	-	-	-	-	-	-
A12620	TUBE TO COPPER RESISTANCE	6420361	2.5h	Jan-24-14 10:00 AM	Jan-24-14 12:30 PM	ELC	-	-	-	-	-	-	-	-	-	-
A12630	ROTOR FIELD RESISTANCE MEASUREMENT	6420361	3.0h	Jan-24-14 12:30 PM	Jan-24-14 03:30 PM	ELC	-	-	-	-	-	-	-	-	-	-
A12640	ROTOR POLE BALANCE TEST	6420361	0.5h	Jan-24-14 03:30 PM	Jan-24-14 04:00 PM	ELC	-	-	-	-	-	-	-	-	-	-
A12650	ROTOR INSULATION TEST	6420361	3.0h	Jan-24-14 04:00 PM	Jan-24-14 07:00 PM	ELC	-	-	-	-	-	-	-	-	-	-
A12660	RESISTANCE MEASUREMENT OF STATOR RTDS-M-OHMN	6420361	2.0h	Jan-24-14 07:00 PM	Jan-25-14 09:00 PM	ELC	-	-	-	-	-	-	-	-	-	-
A12670	INSULATION RESISTANCE OF STATOR RTDS-MEGGER	6420361	3.0h	Jan-24-14 08:00 PM	Jan-25-14 12:00 AM	ELC	-	-	-	-	-	-	-	-	-	-
A12680	PSDT TEST WEDGE MEASUREMENTS	6420361	3.0h	Jan-25-14 07:00 AM	Jan-25-14 10:00 AM	ELC	-	-	-	-	-	-	-	-	-	-
A12690	RESISTANCE MEASUREMENT OF STATOR PHASES-M-OHMN	6420361	1.0h	Jan-25-14 10:00 AM	Jan-25-14 11:00 AM	ELC	-	-	-	-	-	-	-	-	-	-
A12700	MEGGER THROUGH BOLTS	6420361	3.0h	Jan-25-14 11:00 AM	Jan-25-14 02:00 PM	ELC	-	-	-	-	-	-	-	-	-	-
A12710	INSULATION RESISTANCE OF STATOR PHASES-MEGGER	6420361	1.0h	Jan-25-14 02:00 PM	Jan-25-14 03:00 PM	ELC	-	-	-	-	-	-	-	-	-	-
A12720	H-I-PORT GENERATOR STATOR	6420361	5.5h	Jan-27-14 12:00 AM	Jan-27-14 09:30 AM	ELC	-	-	-	-	-	-	-	-	-	-
A12730	RESISTANCE MEASUREMENT OF STATOR RTDS	6420361	0.5h	Jan-27-14 09:30 AM	Jan-27-14 10:00 AM	ELC	-	-	-	-	-	-	-	-	-	-
A12740	INSULATION RESISTANCE OF STATOR RTDS	6420361	4.0h	Jan-27-14 10:00 AM	Jan-27-14 12:30 PM	ELC	-	-	-	-	-	-	-	-	-	-
A12750	RESISTANCE OF AC STATOR	6420361	4.0h	Jan-27-14 02:00 PM	Jan-27-14 04:00 PM	ELC	-	-	-	-	-	-	-	-	-	-

Page 8 of 38

TASK filter: All Activities

© Oracle Corporation

Harrington Station Maintenance Schedules

Harrington Unit 2 OVH HP/IP, LP, Gen		PROJ-S-01 Complete Schedule						Jan-10-14 04:25 PM								
Activity ID	Activity Name	Maximo Work Order	Start Duration	Remaining Duration	Finish	Responsible Crew	January 2014	February 2014	March 2014	06	13	20	27	03	10	17
A12760	RESISTANCE OF FIELD LIMITING RESISTOR	6420361	12.0h	Jan-27-14 06:00 PM	Jan-28-14 10:00 AM	ELC										
A12770	RESISTANCE OF PMG WINDINGS	6420361	3.0h	Jan-28-14 10:00 AM	Jan-28-14 01:00 PM	ELC										
A12780	INSULATION RESISTANCE OF PMG WINDINGS	6420361	2.0h	Jan-28-14 01:00 PM	Jan-28-14 03:00 PM	ELC										
A12790	COIL BALANCE TEST	6420361	3.5h	Jan-28-14 03:00 PM	Jan-28-14 06:30 PM	ELC										
A12800	MEGGER AC STATOR	6420361	2.5h	Jan-28-14 06:30 PM	Jan-28-14 09:00 PM	ELC										
A12810	EXCITER WIRING DISCONNECT FOR REMOVAL	6420361	2.5h	Jan-28-14 09:00 PM	Jan-28-14 11:30 PM	ELC										
A12820	EXCITER CLEAN AND INSPECT	6420361	7.0h	Jan-28-14 11:30 PM	Jan-29-14 10:30 AM	ELC										
A12830	EXCITER WIRING RE CONNECT	6420361	2.0h	Jan-29-14 10:30 AM	Jan-29-14 12:30 PM	ELC										
A12840	EXCITER FUSE AND DIODE CHECK	6420361	3.0h	Jan-29-14 12:30 PM	Jan-29-14 03:30 PM	ELC										
A12850	CLEAN GENERATOR	6420361	12.0h	Jan-29-14 03:30 PM	Jan-30-14 07:30 AM	Mits										
A12860	GENERATOR LEAD BOX INSPECT	6420361	4.0h	Jan-30-14 07:30 AM	Jan-30-14 11:30 AM	ELC										
A12870	GENERATOR FLEX LINKS INSTALL	6420361	4.0h	Jan-30-14 11:30 AM	Jan-30-14 03:30 PM	ELC										
HAR2-OH-4-OH-6-TS-4- Generator Rotor Installation								Feb-21-14 03:00 PM								
A13300	INSTALL SKID PLATE & SHOES- PREPARE TO INSTALL ROTOR	6420732	3.0h	Jan-27-14 02:00 PM	Jan-27-14 05:00 PM	TURB										
A13310	GENERATOR #6 BEARING BRACKET LOWER-DROP IN PLACE & HANG WITH COME-A- LONGS.	6420732	8.0h	Jan-27-14 05:00 PM	Jan-28-14 01:00 PM	TURB										
A13320	RIG & INSTALL ROTOR.	6420732	10.0h	Feb-17-14 11:00 PM*	Feb-18-14 01:00 PM	TURB										
A15000	Complete On-Site Generator Rotor Inspection	6420732	0.0h	Feb-17-14 11:00 PM	Feb-17-14 11:00 PM	TURB										
A13340	GENERATOR #4 BEARING & SUPPORT-INSTALL BEARING. MEGGAR TO ROTOR TO FRAME	6420732	4.0h	Feb-18-14 01:00 PM	Feb-18-14 05:00 PM	TURB										
A13350	GENERATOR #4 AIR Baffle-INSTALL AIR Baffle	6420732	3.0h	Feb-18-14 05:00 PM	Feb-18-14 08:00 PM	TURB										
A13360	REMOVE SKID PLATE & SHOES	6420732	3.0h	Feb-18-14 08:00 PM	Feb-18-14 11:00 PM	TURB										
A13370	GENERATOR #5 H2 BRACKET-INSTALL LOWER H2 BRACKET. MEGGAR ROTOR TO FRAME	6420732	6.0h	Feb-18-14 11:00 PM	Feb-19-14 05:00 AM	TURB										
A13380	GENERATOR BLOWER BLADES-CHANGE OUT BLOWER BLADE SEAL STRIPS	6420732	8.0h	Feb-19-14 05:00 AM	Feb-19-14 08:00 PM	TURB										
A13390	GENERATOR H2 BLOWER BLADES-INSTALL ALL BLOWER BLADES	6420732	15.0h	Feb-19-14 08:00 PM	Feb-20-14 03:00 PM	TURB										
A13400	INSTALL 3 BLOWER BLADE SEGMENTS	6420732	10.0h	Feb-20-14 03:00 PM	Feb-21-14 01:00 AM	TURB										
A13410	MEGGER ROTOR TO FRAME	6420732	10.0h	Feb-21-14 01:00 AM	Feb-21-14 03:00 PM	TURB										
HAR2-OH-4-OH-6-TS-4- Generator Rotor Assembly								Feb-21-14 03:00 PM								
A13420	GENERATOR LOWER MANHOLE-INSTALL ALL RED IRON & MANHOLE COVER	6420750	6.0h	Feb-21-14 03:00 PM	Feb-21-14 09:00 PM	TURB										
A13430	GENERATOR LEAD BOX-INSTALL THE GASKET ON COVER & INSTALL COVER	6420750	3.0h	Feb-21-14 03:00 PM	Feb-21-14 06:00 PM	TURB										
A13440	GENERATOR #6 BEARING-INSTALL TOP HALF OF BEARING. MEGGAR ROTOR TO FRAME	6420750	6.0h	Feb-21-14 06:00 PM	Feb-22-14 02:00 AM	TURB										
A13450	GENERATOR #6 H2 BRACKET-INSTALL LOWER H2 BRACKET. MEGGAR ROTOR TO FRAME	6420750	6.0h	Feb-22-14 02:00 AM	Feb-22-14 01:00 PM	TURB										
A13460	GENERATOR #6 H2 SEAL RING-INSTALL H2 SEAL RING. CHECK FOR FREE MOVEMENT	6420750	2.0h	Feb-22-14 01:00 PM	Feb-22-14 03:00 PM	TURB										
A13470	GENERATOR #5 H2 SEAL-INSTALL H2 SEAL RING. CHECK FOR MOVEMENT	6420750	2.0h	Feb-24-14 07:00 AM	Feb-24-14 02:00 AM	TURB										
A13480	GENERATOR #6 H2 BRACKET- INSTALL TOP HALF OF BRACKET. CHECK FOR MOVEMENT. MEGGAR #5 H2 BRACKET-INSTALL TOP HALF OF BRACKET. CHECK FOR MOVEMENT. MEGGAR	6420750	8.0h	Feb-24-14 02:00 AM	Feb-24-14 03:00 PM	TURB										
A13490	GENERATOR #6 BEARING TOP-INSTALL TOP HALF. MEGGAR ROTOR TO FRAME	6420750	8.0h	Feb-24-14 02:00 AM	Feb-24-14 04:00 PM	TURB										
A13500	INSTALL TOP #5 END BEILL. INSTALL INSULATOR. MEGGAR ROTOR TO FRAME	6420750	3.0h	Feb-24-14 02:00 AM	Feb-24-14 05:00 PM	TURB										
A13510	GENERATOR #6 H2 SEAL-INSTALL LOWER H2 SEAL. MEGGAR ROTOR TO FRAME	6420750	10.0h	Feb-24-14 05:00 PM	Feb-25-14 07:00 AM	TURB										
A13520	GENERATOR #6 BEARING OIL SEAL-INSTALL LOWER H2 SEAL. MEGGAR ROTOR TO FRAME	6420750	4.0h	Feb-25-14 07:00 AM	Feb-25-14 07:00 AM	TURB										
A13530	GENERATOR #5 BEARING OIL SEAL-INSTALL TOP BRNG OIL SEAL. ADJUST TO REQ CLEARANCE. M	6420750	1.0h	Feb-25-14 11:00 AM	Feb-25-14 12:00 PM	TURB										
A13540	GENERATOR #6 BEARING OIL SEAL-INSTALL TOP BRNG OIL SEAL. ADJUST TO REQ CLEARANCE. M	6420750	1.0h	Feb-25-14 11:00 AM	Feb-25-14 12:00 PM	TURB										
A13560	GENERATOR AIR GAP Baffle-BOLT UP AIR GAP Baffle	6420750	5.0h	Feb-25-14 12:00 PM	Feb-25-14 05:00 PM	TURB										
A13570	GENERATOR #6 BRING BRICKT-INSTALL TOP HALF ERNG BRCKT & INSULATOR. MEGGER ROTOR TO FR	6420750	10.0h	Feb-25-14 05:00 PM	Feb-26-14 01:00 PM*	TURB										
A13580	GENERATOR OIL PIPING-INSTALL ALL OIL PIPING.	6420750	16.0h	Feb-25-14 05:00 PM	Mar-07-14 07:00 PM	TURB										
HAR2-OH-4-OH-6-TS-4- Generator LP Coupling								Mar-11-14 09:00 PM								
A13590	GENERATOR LP Coupling	6420777	30.0h	Mar-11-14 09:00 PM	Mar-11-14 09:00 PM	TURB										

Page 9 of 38

TASK filter: All Activities

© Oracle Corporation

Harrington Station Maintenance Schedules

PROJ-S-01 Complete Schedule										Jan-10-14 04:25 PM									
Activity ID	Activity Name	Maximo Work Order			Start Duration		Remaining Duration		Finish		Responsibility Crew		January 2014		February 2014		March 2014		
		06	13	20	27	03	10	17	24	01	10	17	06	13	20	27	03	10	17
A13600	GENERATOR BULLGEAR & COUPLING-INSTALL BULLGEAR & COUPLING BOLTS	6420777	10.0h	Mar-10-14 06:00 PM						Mar-11-14 11:00 AM			TURB						
A13610	GENERATOR TURNING GEAR COVER--INSTALL BULLGEAR	6420777	10.0h	Mar-11-14 11:00 AM						Mar-11-14 09:00 PM			TURB						
A13620	GENERATOR ENDBELLS-PUMP ALL JOINTS WITH SEALANT	6420777	10.0h	Mar-11-14 11:00 AM						Mar-11-14 09:00 PM			TURB						
HAR2-OH-4-OH-6-TS-4-8 Exciter Rerestallation																			
A9130	H2_OUTAGE--EXCITER CLEAN AND INSPECT	6420492	15.0h	Jan-30-14 12:00 PM						Mar-05-14 03:00 AM			TURB						
A13630	INSTALL EXCITER & ALL PIPING	6420785	25.0h	Mar-1-14 08:00 PM						Jan-31-14 02:00 AM			TURB						
A13640	REMOVE #7 BEARING COVER	6420785	3.0h	Mar-1-14 08:00 PM						Mar-12-14 02:00 AM			TURB						
A13650	REMOVE #7 BEARING TOP HALF	6420785	3.0h	Mar-12-14 12:00 AM						Mar-12-14 03:00 AM			TURB						
A13660	REMOVE BEARING OIL SEAL	6420785	1.0h	Mar-12-14 07:00 AM						Mar-12-14 08:00 AM			TURB						
A13670	INSTALL EXCITER TO GENERATOR COUPLING BOLTS & SLEEVES	6420785	6.0h	Mar-12-14 08:00 AM						Mar-12-14 02:00 PM			TURB						
A13680	REMOVE THE PMG FOR SWING CHECK	6420785	1.0h	Mar-12-14 08:00 AM						Mar-12-14 03:00 AM			TURB						
A13690	REMOVE LOWER HALF #7 BEARING	6420785	1.0h	Mar-12-14 08:00 AM						Mar-12-14 10:00 AM			TURB						
A13710	STICK NEW GASKETS ON OIL SEALS	6420785	2.0h	Mar-12-14 10:00 AM						Mar-12-14 12:00 PM			TURB						
A13720	CHECK BEARING & MIC	6420785	3.0h	Mar-12-14 10:00 PM						Mar-12-14 01:00 PM			TURB						
SETUP & PERFORM SWING CHECK																			
A13730	INSTALL #7 BEARING AFTER SWING CHECK	6420785	12.0h	Mar-12-14 12:00 PM						Mar-13-14 02:00 AM			TURB						
A13740	INSTALL & SET OIL SEALS CLEARANCES, INSTALL #7 BEARING COVER	6420785	4.0h	Mar-13-14 12:00 AM						Mar-13-14 08:00 AM			TURB						
A13750	CHECK BOLT TORQUE ON PMG AND CHECK STUB SHAFT CLEARANCES	6420785	3.0h	Mar-13-14 12:00 AM						Mar-13-14 03:00 AM			TURB						
A13760	INSTALL PMG & SET CLEARANCE	6420785	3.0h	Mar-13-14 12:00 AM						Mar-13-14 06:00 AM			TURB						
A13770	INSTALL RED IRON	6420785	1.0h	Mar-13-14 12:00 AM						Mar-13-14 01:00 AM			TURB						
A13780	INSTALL ACW PIPING	6420785	6.0h	Mar-14-14 01:00 AM						Mar-14-14 11:00 AM			TURB						
A13800	REPAIR DOORS SEALS AS NEEDED	6420785	10.0h	Mar-14-14 01:00 AM						Mar-14-14 03:00 PM			TURB						
A13810	SETUP & RUN AIR TEST ON GENERATOR	6420811	2.0h	Mar-14-14 01:00 AM						Mar-14-14 03:00 AM*			I&C						
HAR2-OH-4-OH-6-TS-4-10 Generator Routine Maintenance (Hydrogen and Electrical)																			
A11480	H2_OUTAGE-- F-G TRANSFORMER- CLEAN NEUTRAL BUSHINGS	6422228	20.0h	Jan-25-14 08:00 AM						Jan-27-14 06:00 PM			ELC						
A9110	H2_OUTAGE--EXCITER CHECK FUSE AND DIODES	6420519	32.0h	Jan-27-14 06:00 PM						Jan-29-14 01:00 AM			ELC						
A11480	H2_OUTAGE--GENERATOR - MEGGER PT AND NEUTRAL TRANSFORMERS	6420458	6.0h	Jan-27-14 06:00 PM						Jan-28-14 12:00 AM			ELC						
A9190	H2_OUTAGE--VOLTAGE REGULATOR (NEFC) - CLEAN AND TEST REGULATOR	6420484	10.0h	Jan-29-14 10:00 AM						Jan-29-14 08:00 PM			ELC						
A9200	H2_OUTAGE--VOLTAGE REGULATOR (MAIN FRAC)	6420511	10.0h	Jan-29-14 10:00 AM						Jan-29-14 08:00 PM			ELC						
A11510	H2_OUTAGE-- G/H BREAKER - ROUTINE AND CLEAN BREAKER	6422232	4.0h	Jan-29-14 10:00 AM						Jan-29-14 12:00 PM			ELC						
A9200	H2_OUTAGE--GEN POTENTIAL NEUTRAL CABINETS - CLEAN AND INSPECT--CHECK ALIGNMENT OF ALL CONTACTS	6420509	12.0h	Jan-29-14 10:00 PM						Jan-30-14 02:00 PM			ELC						
A11540	H2_OUTAGE--GENERATOR - MEGGER	6420462	4.0h	Jan-30-14 02:00 PM						Jan-30-14 04:00 PM			ELC						
A11550	H2_OUTAGE-- ISOLATED PHASE - INSTALL GROUND CABLE	6420468	4.0h	Jan-30-14 04:00 PM						Jan-30-14 06:00 PM			ELC						
A11560	H2_OUTAGE-- ISOLATED PHASE - REMOVE GROUND CABLE AND CLOSE ALL DOORS	6420487	4.0h	Jan-30-14 06:00 PM						Jan-31-14 02:00 AM			ELC						
A11570	H2_GENERATOR FIELD BREAKER - CLEAN CABINET AND INSPECT	6420488	5.0h	Jan-31-14 02:00 AM						Jan-31-14 03:00 AM			ELC						
A11780	H2_OUTAGE--HYDROGEN DRYER - CHANGE DESCENTIC	6420816	6.0h	Jan-31-14 06:00 AM						Jan-31-14 08:00 PM			ELC						
A9140	H2_OUTAGE--GENERATOR CT CONDUITS - INSPECT	6420515	5.0h	Jan-31-14 03:00 PM						Jan-31-14 08:00 PM			ELC						
A9150	H2_OUTAGE--TURBINE OIL TANK MOTORS	6421489	2.0h	Jan-31-14 06:00 PM						Jan-31-14 10:00 PM			ELC						
HAR2-OH-4-OH-6-TS-5-1 HP-4P Valve Inspections																			
HAR2-OH-4-OH-6-TS-5-1 Right Throttle Valve																			
A4750	REMOVE SPRINGS HOUSING, ACTUATOR & LINKAGE	6421284	0.0h	Jan-05-14 08:00 AM						Jan-05-14 12:00 PM			TURB						
A4760	UNBOLT, RIG, & REMOVE VALVE FROM STEAM CHEST	6421264	0.0h	Jan-05-14 12:00 PM						Jan-05-14 01:00 PM			TURB						
A4770	REMOVE CROSS HEAD, PILOT VALVE & STEM	6421284	0.0h	Jan-05-14 01:00 PM						Jan-05-14 02:00 PM			TURB						
A4780	REMOVE MAIN VALVE BODY & STEM	6421264	0.0h	Jan-05-14 02:00 PM						Jan-05-14 03:00 PM			TURB						
Project Baseline Bar										Remaining Work									
Actual Work										Critical Remaining Work									

Page 10 of 38

TASK filter: All Activities

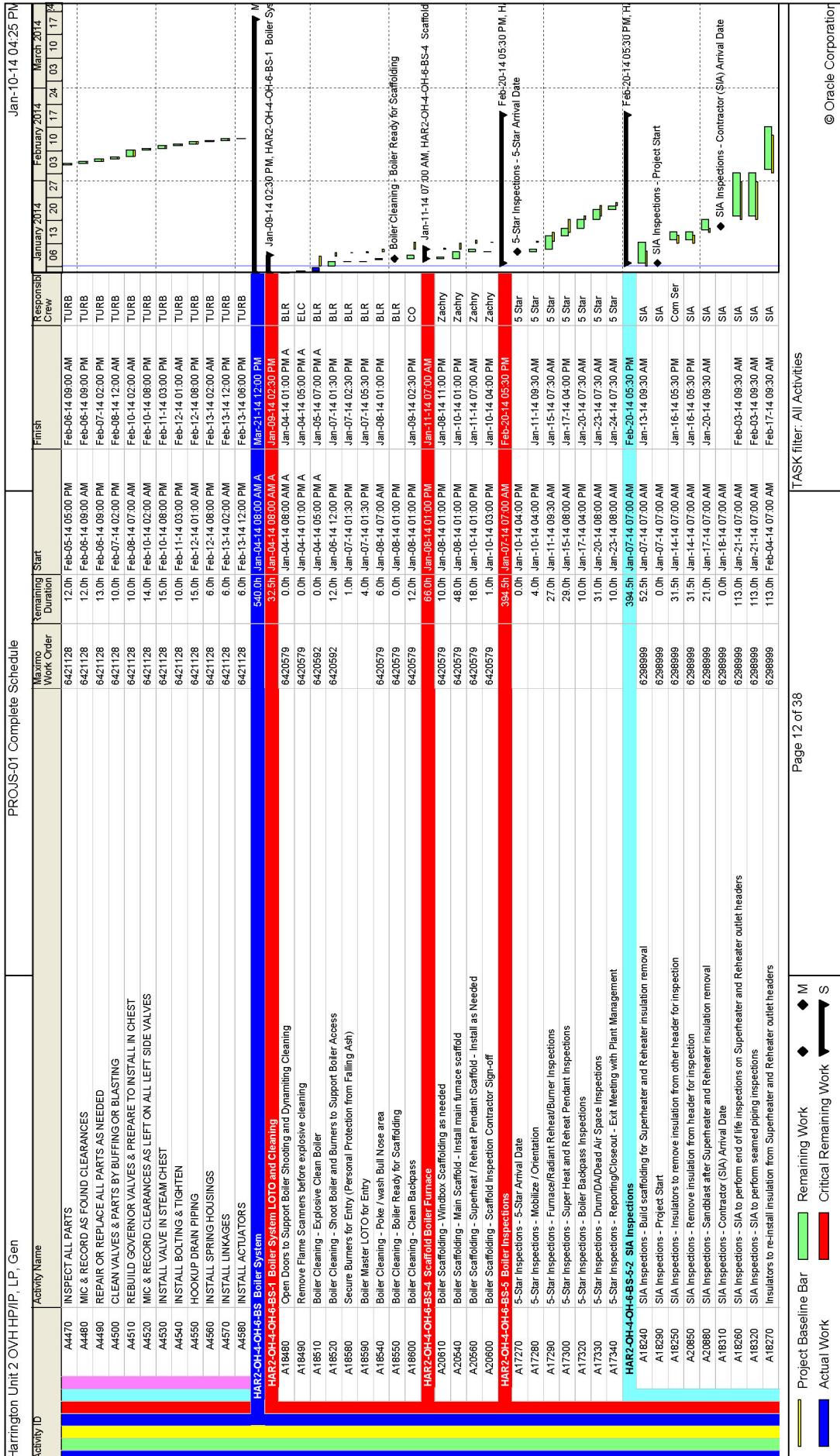
Harrington Station Maintenance Schedules

Harrington Unit 2 OVH HP/IP, LP, Gen		PROJ-S-01 Complete Schedule										Jan-10-14 04:25 PM									
Activity ID	Activity Name	Maximo Work Order			Start Duration	Remaining Duration	Finish	Responsibility Crew		January 2014		February 2014		March 2014							
		6421284	6421284	6421284	16.0h Jan-25-14 08:00 AM	20.0h Jan-27-14 02:00 PM	Jan-27-14 02:00 PM	TURB	TURB	06	13	20	27	03	10	17	24	03	10	17	
A4790	INSPECT, MIC. & RECORD ALL CLEARANCES AS FOUND	6421284	6421284	6421284	16.0h Jan-27-14 02:00 PM	16.0h Jan-28-14 10:00 AM	Jan-28-14 10:00 AM	TURB	TURB												
A4800	REPLACE ALL PARTS AS NEEDED AFTER INSPECTION	6421284	6421284	6421284	16.0h Jan-28-14 10:00 AM	18.0h Jan-29-14 08:00 AM	Jan-29-14 08:00 AM	TURB	TURB												
A4810	DUST BLAST-CLEAN VALVE & PARTS BY BUFFING OR BLASTING	6421284	6421284	6421284	22.0h Jan-29-14 08:00 AM	22.0h Jan-30-14 07:00 PM	Jan-30-14 07:00 PM	TURB	TURB												
A4820	ASSEMBLE, MIC. & RECORD ALL CLEARANCES OUTSIDE CHEST	6421284	6421284	6421284	9.0h Jan-30-14 07:00 PM	9.0h Jan-30-14 11:00 PM	Jan-30-14 11:00 PM	TURB	TURB												
A4830	REPIN CROSS HEAD. CHECK SPRING CLEARANCE	6421284	6421284	6421284	4.0h Jan-30-14 07:00 PM	5.0h Jan-30-14 11:00 PM	Jan-31-14 06:00 PM	TURB	TURB												
A4840	INSTALL VALVE IN STEAM CHEST	6421284	6421284	6421284	5.0h Jan-30-14 11:00 PM	5.0h Jan-31-14 06:00 AM	Jan-31-14 06:00 PM	TURB	TURB												
A4850	CHECK SPRING CLEARANCE AGAIN	6421284	6421284	6421284	5.0h Jan-31-14 06:00 AM	5.0h Jan-31-14 11:00 PM	Jan-31-14 11:00 PM	TURB	TURB												
A4860	TORQUE ALL NUTS AS REQUIRED	6421284	6421284	6421284	5.0h Jan-31-14 06:00 PM	5.0h Jan-31-14 07:00 PM	Jan-31-14 07:00 PM	TURB	TURB												
A4870	INSTALL SPRING HOUSING & ACTUATOR	6421284	6421284	6421284	100.0h Jan-31-14 08:00 AM	100.0h Jan-31-14 08:00 AM	Jan-31-14 08:00 AM	TURB	TURB												
HAR2-OH-4-OH-6-TS-5-1-2 Left Throttle Valve		Jan-31-14 06:00 PM, HAR2-OH-4-OH-6-TS-5-2 Governor Valves Inspection&Repairs																			
A4300	REMOVE SPRING HOUSING, ACTUATOR & LINKAGE	6421202	6421202	6421202	0.0h Jan-05-14 08:00 AM	0.0h Jan-05-14 08:00 AM	Jan-05-14 08:00 AM	TURB	TURB												
A4310	UNBOLT, RIG & REMOVE VALVE FROM STEAM CHEST	6421202	6421202	6421202	0.0h Jan-05-14 12:00 PM	0.0h Jan-05-14 12:00 PM	Jan-05-14 12:00 PM	TURB	TURB												
A4320	REMOVE CROSS HEAD, PILOT VALVE & STEM	6421202	6421202	6421202	0.0h Jan-05-14 01:00 PM	0.0h Jan-05-14 01:00 PM	Jan-05-14 01:00 PM	TURB	TURB												
A4330	REMOVE MAIN VALVE BODY & STEM	6421202	6421202	6421202	0.0h Jan-05-14 02:00 PM	0.0h Jan-05-14 02:00 PM	Jan-05-14 02:00 PM	TURB	TURB												
A4340	INSPECT, MIC. & RECORD ALL CLEARANCES AS FOUND	6421202	6421202	6421202	16.0h Jan-05-14 08:00 AM	16.0h Jan-27-14 02:00 PM	Jan-27-14 02:00 PM	TURB	TURB												
A4350	REPLACE ALL PARTS AS NEEDED AFTER INSPECTION	6421202	6421202	6421202	16.0h Jan-27-14 02:00 PM	16.0h Jan-28-14 08:00 AM	Jan-28-14 08:00 AM	TURB	TURB												
A4360	DUST BLAST-CLEAN VALVE & PARTS BY BUFFING OR BLASTING	6421202	6421202	6421202	18.0h Jan-28-14 10:00 AM	22.0h Jan-29-14 08:00 AM	Jan-29-14 08:00 AM	TURB	TURB												
A4370	ASSEMBLE, MIC. & RECORD ALL CLEARANCES OUTSIDE CHEST	6421202	6421202	6421202	22.0h Jan-29-14 08:00 AM	22.0h Jan-30-14 07:00 PM	Jan-30-14 07:00 PM	TURB	TURB												
A4380	REPIN CROSS HEAD, CHECK SPRING CLEARANCE	6421202	6421202	6421202	9.0h Jan-30-14 07:00 PM	4.0h Jan-30-14 11:00 PM	Jan-31-14 11:00 PM	TURB	TURB												
A4390	INSTALL VALVE IN STEAM CHEST	6421202	6421202	6421202	5.0h Jan-31-14 11:00 PM	5.0h Jan-31-14 08:00 AM	Jan-31-14 08:00 AM	TURB	TURB												
A4400	CHECK SPRING CLEARANCE AGAIN	6421202	6421202	6421202	5.0h Jan-31-14 08:00 PM	5.0h Jan-31-14 09:00 PM	Jan-31-14 09:00 PM	TURB	TURB												
A4410	TORQUE ALL NUTS AS REQUIRED	6421202	6421202	6421202	5.0h Jan-31-14 09:00 PM	5.0h Jan-31-14 10:00 PM	Jan-31-14 10:00 PM	TURB	TURB												
A4420	INSTALL SPRING HOUSING & ACTUATOR	6421202	6421202	6421202	5.0h Jan-31-14 10:00 PM	266.0h Feb-01-14 06:00 PM	Feb-01-14 06:00 PM	TURB	TURB												
HAR2-OH-4-OH-6-TS-5-2 Governor Valves Inspection&Repairs		Feb-01-14 06:00 PM, HAR2-OH-4-OH-6-TS-5-2 Right Governor Valves																			
A4590	REMOVE ACTUATORS, SPRING HOUSINGS, LINKAGES	6421236	6421236	6421236	158.0h Jan-25-14 08:00 AM	158.0h Jan-25-14 08:00 AM	Feb-05-14 08:00 AM	TURB	TURB												
A4600	UNBOLT, BONNETS & LEAK OFF LINES	6421236	6421236	6421236	20.0h Jan-25-14 08:00 AM	3.0h Jan-27-14 06:00 PM	Jan-27-14 06:00 PM	TURB	TURB												
A4610	RIG & REMOVE VALVE FROM CHEST	6421236	6421236	6421236	3.0h Jan-27-14 06:00 PM	3.0h Jan-27-14 08:00 PM	Jan-27-14 08:00 PM	TURB	TURB												
A4620	UNPIN CROSS HEADS & REMOVE VALVE STEMS	6421236	6421236	6421236	3.0h Jan-28-14 12:00 AM	12.0h Jan-28-14 07:00 AM	Jan-28-14 07:00 AM	TURB	TURB												
A4630	INSPECT ALL PARTS	6421236	6421236	6421236	12.0h Jan-28-14 07:00 AM	12.0h Jan-29-14 11:00 AM	Jan-29-14 11:00 AM	TURB	TURB												
A4640	MIC & RECORD AS FOUND CLEARANCES	6421236	6421236	6421236	13.0h Jan-29-14 11:00 AM	13.0h Jan-30-14 12:00 AM	Jan-30-14 12:00 AM	TURB	TURB												
A4650	REPAIR OR REPLACE ALL PARTS AS NEEDED	6421236	6421236	6421236	10.0h Jan-30-14 12:00 AM	10.0h Jan-30-14 02:00 PM	Jan-31-14 02:00 PM	TURB	TURB												
A4660	CLEAN VALVES & PARTS BY BUFFING OR BLASTING	6421236	6421236	6421236	15.0h Jan-31-14 03:00 PM	15.0h Feb-01-14 04:00 PM	Feb-01-14 04:00 PM	TURB	TURB												
A4670	REBUILD GOVERNOR VALVES & PREPARE TO INSTALL IN CHEST	6421236	6421236	6421236	6.0h Feb-01-14 04:00 PM	6.0h Feb-01-14 04:00 PM	Feb-01-14 04:00 PM	TURB	TURB												
A4680	MIC & RECORD CLEARANCES AS LEFT ON ALL LEFT SIDE VALVES	6421236	6421236	6421236	6.0h Feb-01-14 04:00 PM	296.0h Feb-15-14 08:00 AM	Feb-15-14 08:00 AM	TURB	TURB												
A4690	INSTALL VALVE IN STEAM CHEST	6421128	6421128	6421128	15.0h Feb-15-14 08:00 AM	20.0h Jan-25-14 08:00 AM	Jan-25-14 08:00 AM	TURB	TURB												
A4700	INSTALL BOLTING & TIGHTEN	6421128	6421128	6421128	3.0h Feb-05-14 08:00 AM	3.0h Feb-05-14 11:00 AM	Feb-05-14 11:00 AM	TURB	TURB												
A4710	HOOKUP DRAIN PIPING	6421128	6421128	6421128	3.0h Feb-05-14 11:00 AM	6.0h Feb-04-14 10:00 PM	Feb-04-14 10:00 PM	TURB	TURB												
A4720	INSTALL SPRING HOUSINGS	6421128	6421128	6421128	6.0h Feb-04-14 10:00 PM	6.0h Feb-05-14 02:00 PM	Feb-05-14 02:00 PM	TURB	TURB												
A4730	INSTALL LINKAGES	6421128	6421128	6421128	3.0h Feb-05-14 02:00 PM	3.0h Feb-05-14 02:00 PM	Feb-05-14 02:00 PM	TURB	TURB												
A4740	INSTALL ACTUATORS	6421128	6421128	6421128	6.0h Feb-04-14 10:00 PM	6.0h Feb-05-14 08:00 AM	Feb-05-14 08:00 AM	TURB	TURB												
HAR2-OH-4-OH-6-TS-5-2 Left Governor Valves		Feb-15-14 08:00 AM, HAR2-OH-4-OH-6-TS-5-2 Left Governor Valves																			
A4430	REMOVE ACTUATORS, SPRING HOUSINGS, LINKAGES	6421128	6421128	6421128	20.0h Jan-25-14 08:00 AM	20.0h Jan-25-14 08:00 AM	Jan-25-14 08:00 AM	TURB	TURB												
A4440	UNBOLT, BONNETS & LEAK OFF LINES	6421128	6421128	6421128	3.0h Feb-05-14 08:00 AM	3.0h Feb-05-14 11:00 AM	Feb-05-14 11:00 AM	TURB	TURB												
A4450	RIG AND REMOVE VALVE FROM CHEST	6421128	6421128	6421128	3.0h Feb-05-14 11:00 AM	3.0h Feb-05-14 11:00 AM	Feb-05-14 11:00 AM	TURB	TURB												
A4460	UNPIN CROSS HEADS & REMOVE VALVE STEMS	6421128	6421128	6421128	3.0h Feb-05-14 11:00 AM	296.0h Feb-15-14 08:00 AM	Feb-15-14 08:00 AM	TURB	TURB												

TASK filter: All Activities

© Oracle Corporation

Harrington Station Maintenance Schedules



Harrington Station Maintenance Schedules

Harrington Unit 2 OVH HP/LP, Gen		PROJ-S-01 Complete Schedule										Jan-10-14 04:25 PM							
Activity ID	Activity Name	Start	Remaining Duration	Finish	Responsible Crew	January 2014	February 2014	March 2014	06	13	20	27	03	10	17	24	03	10	17
A21780	I&C to install new thermocouples on Superheater and Reheater outlet headers	21.0h	Feb-04-14 07:00 AM	Feb-05-14 05:30 PM	I&C														
A18280	Remove scaffolding for Superheater and Reheater insulation removal	31.5h	Feb-08-14 07:00 AM	Feb-10-14 05:30 PM	Com Ser														
A18300	SIA Inspections - Project Finish	0.0h		Feb-10-14 05:30 PM	SIA														
HAR2-OH-4-OH-6-B5-6-4 Boiler Relief Valve Pre-Outline Testing																			
A22020	M&L On-Site for Valve Inspection	200.0h	Jan-06-14 12:00 PM	Feb-03-14 12:00 PM															
A22300	Perform Pressure Testing on Drain Valves - 4 ea.	40.0h	Jan-06-14 12:00 PM	Feb-03-14 12:00 PM	M&L														
A22340	Perform Pressure Testing on Cold Reheat Valves - 2 ea.	40.0h	Jan-16-14 12:00 PM	Jan-22-14 12:00 PM	M&L														
A22050	Perform Pressure Testing on Heat Reheat Valves - 2 ea.	40.0h	Jan-22-14 12:00 PM	Jan-28-14 12:00 PM	M&L														
A22360	Perform Pressure Testing on Main Steam Valves - 2 ea.	40.0h	Jan-28-14 12:00 PM	Feb-18-14 08:30 AM	M&L														
HAR2-OH-4-OH-6-B5-6-1 Super Heat Outlet																			
A6320	REMOVE SAFETY VALVE	2.0h	Feb-03-14 12:00 PM	Feb-03-14 02:00 PM	SHOP														
A6330	PACK and LOAD VALVE for SHIPPING	2.0h	Feb-03-14 02:00 PM	Feb-03-14 04:00 PM	SHOP														
A6340	M&L REFURBISHES and RESETS VALVE, RETURNS VALVE to PLANT	116.0h	Feb-04-14 11:30 AM	Feb-17-14 05:00 PM	M&L														
A6350	SET SAFETY VALVE	2.0h	Feb-17-14 05:00 PM	Feb-18-14 08:30 AM	M&L														
A6360	GIVE RECORDS to ENGINEERING for FILING	0.0h	Feb-18-14 08:30 AM	Feb-18-14 10:30 AM	SHOP														
HAR2-OH-4-OH-6-B5-6-2 Reheat Inlet Relief																			
A6370	REMOVE SAFETY VALVE	2.0h	Feb-03-14 02:00 PM	Feb-03-14 04:00 PM	SHOP														
A6380	PACK and LOAD VALVE for SHIPPING	2.0h	Feb-03-14 04:00 PM	Feb-04-14 07:30 AM	SHOP														
A6390	M&L REFURBISHES and RESETS VALVE, RETURNS VALVE to PLANT	116.0h	Feb-04-14 11:30 AM	Feb-17-14 05:00 PM	M&L														
A6400	SET SAFETY VALVE	2.0h	Feb-18-14 08:30 AM	Feb-18-14 10:30 AM	M&L														
A6410	GIVE RECORDS to ENGINEERING for FILING	0.0h	Feb-18-14 10:30 AM	Feb-18-14 12:30 PM	SHOP														
HAR2-OH-4-OH-6-B5-6-3 Hot Reheat Outlet																			
A6420	REMOVE SAFETY VALVE	2.0h	Feb-03-14 04:00 PM	Feb-03-14 07:30 AM	SHOP														
A6430	PACK and LOAD VALVE for SHIPPING	2.0h	Feb-03-14 07:30 AM	Feb-04-14 09:30 AM	SHOP														
A6440	M&L REFURBISHES and RESETS VALVE, RETURNS VALVE to PLANT	116.0h	Feb-04-14 11:30 AM	Feb-17-14 05:00 PM	M&L														
A6450	SET SAFETY VALVE	2.0h	Feb-18-14 10:30 AM	Feb-18-14 12:30 PM	M&L														
A6460	GIVE RECORDS to ENGINEERING for FILING	0.0h	Feb-18-14 12:30 PM	Feb-18-14 04:00 PM	SHOP														
HAR2-OH-4-OH-6-B5-6-5 Drum Relief Valves																			
A10360	H2_OUTAGE--DRUM RELIEF - REMOVE SAFETY VALVE	2.0h	Feb-04-14 07:30 AM	Feb-04-14 09:30 AM	BLR														
A10370	H2_OUTAGE--DRUM RELIEF - PACK AND LOAD VALVE FOR SHIPPING	2.0h	Feb-04-14 09:30 AM	Feb-04-14 11:30 AM	BLR														
A10380	H2_OUTAGE--DRUM RELIEF - M&L REFURBISHES AND RESETS VALVE, RETURNS VALVE TO PLANT	116.0h	Feb-04-14 11:30 AM	Feb-17-14 05:00 PM	M&L														
A10390	H2_OUTAGE--DRUM RELIEF - SET SAFETY VALVE	2.0h	Feb-18-14 12:30 PM	Feb-18-14 02:30 PM	BLR														
A10400	H2_OUTAGE--DRUM RELIEF - GIVE RECORDS TO ENGINEERING FOR FILING	0.0h	Feb-18-14 02:30 PM	Feb-18-14 04:00 PM	BLR														
HAR2-OH-4-OH-6-B5-6-6 Routine Boiler Repairs																			
A8620	H2_OUTAGE--BOILER WALL BLOWERS - INSPECT & OR REPAIR LANCE ALIGNMENT. EAST, WEST, NORTH, & SOUTH WALLS	6427796	24.0h	Jan-14-14 07:00 AM	BLR														
A11600	REPAIR BOILER VALVES (2ND HALF: 6 YR INTERVAL)	6422026	180.0h	Jan-14-14 07:00 AM	BLR														
A2210	H2_OUTAGE--FLAME SCANNERS - REMOVE REPAIR AND REINSTALL	6422156	10.0h	Jan-14-14 12:30 PM	ELC														
A11530	H2_OUTAGE--BOILER CIRC PUMPS - M&L REFURBISHES HOT AND WET	6421931	12.0h	Jan-14-14 12:30 PM	ELC														
A2230	H2_OUTAGE--BOILER PANELS - CLEAN AND INSPECT	6421933	16.0h	Jan-15-14 12:00 PM	ELC														
A11840	H2_OUTAGE--BOILER LOW PRESSURE SWITCHES	6422097	6.0h	Jan-17-14 07:00 AM	ELC														
A12060	H2_OUTAGE--BOILER VALVES - STROKE, CALIBRATE AND CHECK PACKING	6420577	110.0h	Jan-17-14 07:00 AM	ELC														
A12080	H2_OUTAGE--AIR REGISTERS - BOILER ACCESS DOORS TO AIR REGISTERS - OPEN ACCESS DOORS TO AIR REGIST...	6424584	2.0h	Feb-18-14 02:30 PM	BLR														
A12110	H2_OUTAGE--REPAIR BOILER VALVES (1ST HALF: 6 YR INTERVAL)	6420601	40.0h	Feb-18-14 04:30 PM	BLR														
A10840	H2_OUTAGE--DRUM PRESSURE GAUGE - CALIBRATE PRESS GAUGE	6420426	6.0h	Feb-22-14 02:30 PM	BLR														
A10830	H2_OUTAGE--BOILER FIREBOX PAD WELDING - MAKE ALL NECESSARY REPAIRS	6420463	25.0h	Feb-24-14 12:30 PM	BLR														

Page 13 of 38

TASK filter: All Activities

© Oracle Corporation

Harrington Station Maintenance Schedules

Harrington Unit 2 OVH HP/IP, LP, Gen		PROJ-S-01 Complete Schedule							Jan-10-14 04:25 PM						
Activity ID	Activity Name	Start	Remaining Duration	Finish	Responsible Crew	January 2014	February 2014	March 2014	Start	Remaining Duration	Finish	Responsible Crew	January 2014	February 2014	March 2014
A10840	H2_OUTAGE--BOILER FIREBOX PAD WELDING- WATERWALL TUBES	65.0h	Feb-26-14 04:30 PM	Mar-06-14 10:30 AM	SHOP	06 13	20	27	03	10	17	ASH	-	-	-
A10850	H2_OUTAGE--BOILER FIREBOX PAD WELDING- SCREEN TUBES, ETC	6420463	10.0h	Mar-06-14 10:30 AM	SHOP	Mar-07-14 10:00 AM	Mar-07-14 10:30 AM	Mar-07-14 10:30 AM	6420463	5.0h	Mar-07-14 10:00 AM	SHOP	Mar-07-14 03:00 PM	Mar-07-14 10:30 PM	Mar-07-14 12:30 PM
A11700	H2_OUTAGE--D.A. HEATER - MAKE NECESSARY REPAIRS TO INTERNAL DAMAGE, EROSION, ETC	24.0h	Mar-07-14 10:00 AM	Mar-15-14 07:00 AM	Zachy	Mar-15-14 12:30 PM	Feb-05-14 09:30 AM	Feb-05-14 09:30 AM	6420463	12.0h	Jan-31-14 04:00 PM	BLR	Jan-31-14 05:00 PM	Feb-01-14 04:30 PM	Feb-01-14 05:00 PM
A11700	Remove All Furnace Scaffolding								6420463	4.0h	Jan-31-14 04:00 PM	BLR	Feb-01-14 05:00 PM	Feb-01-14 05:00 PM	Feb-01-14 05:00 PM
HAR2-OH-4-OH-6-BS-101 Perthouse		OPEN ACCESS DOORS OF PENTHOUSE FOR INSPECTION							Feb-03-14 09:30 AM						
A11890	OPEN ACCESS DOORS OF PENTHOUSE FOR INSPECTION	6420894	1.0h	Jan-31-14 04:00 PM	BLR	Jan-31-14 05:00 PM	Feb-01-14 04:30 PM	Feb-01-14 05:00 PM	6420894	1.0h	Jan-31-14 04:00 PM	BLR	Feb-01-14 05:00 PM	Feb-01-14 05:00 PM	Feb-01-14 05:00 PM
A10750	MAKE NECESSARY REPAIRS - EXPANSION JOINTS	6420451	3.0h	Feb-01-14 10:30 AM	SHOP	Feb-01-14 01:30 PM	Feb-01-14 01:30 PM	Feb-01-14 01:30 PM	6420451	3.0h	Feb-01-14 10:30 AM	SHOP	Feb-01-14 08:30 AM	Feb-01-14 08:30 AM	Feb-01-14 08:30 AM
A10760	MAKE NECESSARY REPAIRS - CASING	6420451	1.0h	Feb-03-14 08:30 AM	SHOP	Feb-03-14 09:30 AM	Feb-03-14 09:30 AM	Feb-03-14 09:30 AM	6420451	1.0h	Feb-03-14 08:30 AM	BLR	Feb-03-14 09:30 AM	Feb-03-14 09:30 AM	Feb-03-14 09:30 AM
A10770	MAKE NECESSARY REPAIRS - PIPE HANGERS, ETC	6420894	1.0h	Feb-03-14 08:30 AM	BLR	Feb-03-14 09:30 AM	Feb-03-14 09:30 AM	Feb-03-14 09:30 AM	6420894	150.0h	Feb-03-14 08:30 AM	BLR	Feb-19-14 04:30 PM	Feb-19-14 04:30 PM	Feb-19-14 04:30 PM
A12000	CLOSE DOORS AFTER INSPECTION								6420894	75.0h	Feb-03-14 08:30 AM	BLR	Feb-11-14 01:30 PM	Feb-11-14 01:30 PM	Feb-11-14 01:30 PM
HAR2-OH-4-OH-6-SS-102 Dead Air Spaces		MAKE NECESSARY REPAIRS - EXPANSION JOINTS							Feb-04-14 02:00 PM						
A10780	MAKE NECESSARY REPAIRS - EXPANSION JOINTS	6420457	75.0h	Feb-11-14 01:30 PM	SHOP	Feb-19-14 04:30 PM	Feb-22-14 02:00 PM	Feb-22-14 02:00 PM	6420457	75.0h	Feb-11-14 01:30 PM	SHOP	Feb-19-14 04:30 PM	Feb-22-14 02:00 PM	Feb-22-14 02:00 PM
A10790	MAKE NECESSARY REPAIRS - CASING, ETC	6420504	4.0h	Feb-20-14 07:00 AM	BLR	Feb-20-14 11:00 AM	Feb-20-14 11:00 AM	Feb-20-14 11:00 AM	6420504	4.0h	Feb-20-14 07:00 AM	BLR	Feb-22-14 01:00 AM	Feb-22-14 11:00 AM	Feb-22-14 11:00 AM
HAR2-OH-4-OH-6-SS-103 DA Heater & Storage Tank		OPEN MANHOLE COVERS							Feb-22-14 02:00 PM						
A10800	OPEN MANHOLE COVERS	6420504	20.0h	Feb-20-14 11:00 AM	BLR	Feb-22-14 10:00 AM	Feb-22-14 10:00 AM	Feb-22-14 10:00 AM	6420504	4.0h	Feb-22-14 10:00 AM	BLR	Feb-24-14 02:00 PM	Feb-24-14 02:00 PM	Feb-24-14 02:00 PM
A10810	MAKE NECESSARY REPAIRS - TO INTERNAL DAMAGE	6420504	20.0h	Feb-20-14 11:00 AM	BLR	Feb-22-14 10:00 AM	Feb-22-14 10:00 AM	Feb-22-14 10:00 AM	6420504	28.0h	Feb-24-14 07:00 AM	BLR	Feb-24-14 03:00 PM	Feb-24-14 11:00 AM	Feb-24-14 11:00 AM
A10820	CLOSE AFTER INSPECTION and REPAIR	6420896	4.0h	Feb-24-14 11:00 AM	BLR	Feb-26-14 11:00 AM	Feb-26-14 11:00 AM	Feb-26-14 11:00 AM	6420896	20.0h	Feb-24-14 11:00 AM	BLR	Feb-26-14 11:00 AM	Feb-26-14 11:00 AM	Feb-26-14 11:00 AM
HAR2-OH-4-OH-6-SS-104 Steam and Mud Drums		Open Steam and Mud Drums							Feb-26-14 03:00 PM						
A22860	Open Steam and Mud Drums	6420896	20.0h	Feb-24-14 11:00 AM	BLR	Feb-26-14 11:00 AM	Feb-26-14 11:00 AM	Feb-26-14 11:00 AM	6420896	4.0h	Feb-24-14 11:00 AM	BLR	Feb-26-14 11:00 AM	Feb-26-14 11:00 AM	Feb-26-14 11:00 AM
A22860	Inspect and Repair as Needed	6420896	4.0h	Feb-26-14 11:00 AM	BLR	Jan-15-14 04:30 PM	Jan-15-14 04:30 PM	Jan-15-14 04:30 PM	6420896	40.0h	Jan-10-14 04:00 PM	BLR	Jan-15-14 04:30 PM	Jan-15-14 04:30 PM	Jan-15-14 04:30 PM
A22970	Close Steam and Mud Drums	6420896	4.0h	Feb-26-14 11:00 AM	BLR	Jan-15-14 04:30 PM	Jan-15-14 04:30 PM	Jan-15-14 04:30 PM	6420896	40.0h	Jan-10-14 04:00 PM	BLR	Jan-15-14 04:30 PM	Jan-15-14 04:30 PM	Jan-15-14 04:30 PM
HAR2-OH-4-OH-6-SS-2 Replace Boiler SOFA Tips		Replace Worn Boiler SOFA Tips, AA and FA Tips, and Boiler Tips							Feb-08-14 11:00 AM HAR2-OH-4-OH-6-SS-105 Boiler Draft						
A22940	Replace Worn Boiler SOFA Tips, AA and FA Tips, and Boiler Tips	6420430	230.5h	Jan-06-14 12:00 PM	BLR	Feb-08-14 11:00 AM	Feb-08-14 11:00 AM	Feb-08-14 11:00 AM	6420430	30.0h	Jan-11-14 07:00 AM	BLR	Jan-15-14 08:00 AM	Jan-15-14 08:00 AM	Jan-15-14 08:00 AM
A10860	H2_OUTAGE--BOILER INSTRUMENTS - REMOVE AND INSTALL INSTRUMENTS AS NEEDED FOR MAINTENANCE	6420444	50.0h	Jan-11-14 07:00 AM	I&C	Jan-16-14 07:00 AM	Jan-16-14 07:00 AM	Jan-16-14 07:00 AM	6420444	50.0h	Jan-11-14 07:00 AM	I&C	Jan-16-14 07:00 AM	Jan-16-14 07:00 AM	Jan-16-14 07:00 AM
A10880	H2_OUTAGE--BOILER INSTRUMENTS - CALIBRATE AND REPAIR AS NECESSARY	6420444	24.0h	Jan-17-14 07:00 AM	I&C	Jan-20-14 02:30 PM	Jan-20-14 02:30 PM	Jan-20-14 02:30 PM	6420444	24.0h	Jan-17-14 07:00 AM	I&C	Jan-20-14 02:30 PM	Jan-20-14 02:30 PM	Jan-20-14 02:30 PM
A10700	H2_OUTAGE--AIR REGISTER DRIVES - OUTAGE--BOILER ACCESS DOORS TO DUCTS--CLOSE DOORS AFTER INSPECTION	6420474	2.0h	Jan-20-14 12:30 PM	BLR	Jan-20-14 03:30 PM	BLR	Jan-20-14 03:30 PM	6420474	2.0h	Jan-20-14 12:30 PM	BLR	Jan-20-14 03:30 PM	BLR	Jan-20-14 03:30 PM
A9810	H2_OUTAGE--PRIMARY AIR DUCTS - OUTAGE--BOILER ACCESS DOORS TO DUCTS--CLOSE DOORS AFTER INSPECTION	6421939	1.0h	Jan-20-14 03:30 PM	ELC	Jan-20-14 04:30 PM	ELC	Jan-20-14 04:30 PM	6421939	1.0h	Jan-20-14 03:30 PM	ELC	Jan-20-14 04:30 PM	ELC	Jan-20-14 04:30 PM
A9890	H2_OUTAGE--FD FAN PANELS - CLEAN AND INSPECT	6421937	1.0h	Jan-20-14 03:30 PM	ELC	Jan-20-14 04:30 PM	ELC	Jan-20-14 04:30 PM	6421937	92.5h	Jan-06-14 12:00 PM	ELC	Jan-16-14 12:30 PM	Jan-16-14 12:30 PM	Jan-16-14 12:30 PM
A9100	H2_OUTAGE--ID FAN PANELS - CLEAN AND INSPECT	6422067	12.5h	Jan-15-14 10:30 AM	ASH	Jan-16-14 09:30 AM	ASH	Jan-16-14 09:30 AM	6422067	12.5h	Jan-15-14 10:30 AM	ASH	Jan-16-14 09:30 AM	ASH	Jan-16-14 09:30 AM
A5530	CLEAN AND INSPECT BEARING & COVER - REPAIR AS NEEDED	6421991	4.0h	Jan-06-14 04:00 PM	ASH	Jan-07-14 04:00 PM	ASH	Jan-07-14 04:00 PM	6421991	4.0h	Jan-06-14 04:00 PM	ASH	Jan-07-14 04:00 PM	ASH	Jan-07-14 04:00 PM
A5540	CLEAN AND INSPECT BEARING CLEARANCE, REPAIR AS NEEDED	6421991	6.0h	Jan-07-14 04:30 AM	ASH	Jan-08-14 03:00 PM	ASH	Jan-08-14 03:00 PM	6421991	4.0h	Jan-07-14 04:30 AM	ASH	Jan-08-14 03:00 PM	ASH	Jan-08-14 03:00 PM
A5550	CLEAN AND MIC BEARING CLEARANCE, REPAIR AS NEEDED	6421991	4.0h	Jan-08-14 03:00 PM	ASH	Jan-09-14 01:30 PM	ASH	Jan-09-14 01:30 PM	6421991	4.0h	Jan-08-14 03:00 PM	ASH	Jan-09-14 01:30 PM	ASH	Jan-09-14 01:30 PM
A5560	AFTER CLEANING, INSTALL BEARING AND BEARING COVER	6421991	4.0h	Jan-09-14 01:30 PM	ASH	Jan-10-14 01:30 PM	ASH	Jan-10-14 01:30 PM	6421991	10.0h	Jan-08-14 01:00 PM	ASH	Jan-10-14 01:30 PM	ASH	Jan-10-14 01:30 PM
A5570	INSTALL MOTOR ENDBELL	6421991	10.0h	Jan-08-14 01:00 PM	ASH	Jan-10-14 12:30 PM	ASH	Jan-10-14 12:30 PM	6421991	8.0h	Jan-09-14 12:30 PM	ASH	Jan-10-14 10:00 AM	ASH	Jan-10-14 10:00 AM
A5580	CHECK ALIGNMENT, CORRECT AS NEEDED	6421991	8.0h	Jan-09-14 12:30 PM	ASH	Jan-15-14 10:30 AM	ASH	Jan-15-14 10:30 AM	6421991	40.0h	Jan-10-14 10:00 AM	ASH	Jan-15-14 02:00 PM	ASH	Jan-15-14 02:00 PM
A5590	STEAM CLEAN ID FAN MOTOR	6421991	40.0h	Jan-10-14 10:00 AM	ASH	Jan-11-14 07:30 AM	ASH	Jan-11-14 07:30 AM	6421991	4.0h	Jan-10-14 10:00 AM	ASH	Jan-11-14 07:30 AM	ASH	Jan-11-14 07:30 AM
A5600	REMOVE & MOTOR ENDBELL	6421991	4.0h	Jan-10-14 10:00 AM	ASH	Jan-11-14 02:30 PM	ASH	Jan-11-14 02:30 PM	6421991	4.0h	Jan-10-14 10:00 AM	ASH	Jan-11-14 01:30 PM	ASH	Jan-11-14 01:30 PM
A5610	REMOVE & INSTALL BEARING & COVER, REPAIR AS NEEDED	6421991	6.0h	Jan-11-14 02:30 PM	ASH	Jan-11-14 07:30 AM	ASH	Jan-11-14 07:30 AM	6421991	6.0h	Jan-11-14 02:30 PM	ASH	Jan-11-14 09:30 AM	ASH	Jan-11-14 09:30 AM
A5620	CLEAN AND MIC BEARING CLEARANCE, REPAIR AS NEEDED	6421991	6.0h	Jan-11-14 07:30 AM	ASH	Jan-12-14 01:30 PM	ASH	Jan-12-14 01:30 PM	6421991	4.0h	Jan-11-14 07:30 AM	ASH	Jan-12-14 01:30 PM	ASH	Jan-12-14 01:30 PM
A5630	AFTER CLEANING, INSTALL BEARING AND BEARING COVER	6421991	4.0h	Jan-12-14 01:30 PM	ASH	Jan-13-14 08:30 AM	ASH	Jan-13-14 08:30 AM	6421991	4.0h	Jan-12-14 01:30 PM	ASH	Jan-13-14 08:30 AM	ASH	Jan-13-14 08:30 AM
A5640	INSTALL MOTOR ENDBELL	6421991	4.0h	Jan-13-14 08:30 AM	ASH	Jan-14-14 01:00 PM	ASH	Jan-14-14 01:00 PM	6421991	10.0h	Jan-13-14 01:30 PM	ASH	Jan-14-14 01:30 PM	ASH	Jan-14-14 01:30 PM
HAR2-OH-4-OH-6-BS-43-2 West ID Fans "OB"		Project Baseline Bar Remaining Work Critical Remaining Work							TASK filter: All Activities						
A5650		A5650 CHECK ALIGNMENT, CORRECT AS NEEDED							© Oracle Corporation						

Harrington Station Maintenance Schedules

Harrington Unit 2 OVH HP/IP, LP, Gen		PROJ-S-01 Complete Schedule						Jan-10-14 04:25 PM								
Activity ID	Activity Name	Maximo Work Order	Start Duration	Remaining Duration	Finish	Responsible Crew	January 2014	February 2014	March 2014	06	13	20	27	03	10	17
A5660	STEAM CLEAN I.D. FAN MOTOR	64219898	8.0h Jan-14-14 01:00 PM	92.5h Jan-16-14 12:30 PM	Jan-15-14 10:30 AM	ASH										
HAR2-OH-4-OH-6-BS-13-4 East ID Fans by Inspection								Jan-27-14 03:30 PM, HAR2-OH-4-OH-6-B								
A5810	H2_OUFTAGE -EAST ID FAN FLUID DRIVE -INSPECT FLUID DRIVES on FANS	6422065	12.5h Jan-25-14 11:00 AM	40.0h Jan-26-14 12:30 PM	Jan-27-14 03:30 PM	ASH										
HAR2-OH-4-OH-6-BS-13-1 East ID Fans "B"								Jan-21-14 01:00 PM, HAR2-OH-4-OH-6-BS-13								
A5670	REMOVE MOTOR ENDBELL	642207	4.0h Jan-16-14 12:30 PM	6.0h Jan-17-14 04:30 PM	Jan-21-14 01:00 PM	ASH										
A5680	REMOVE & INSPECT BEARING & COVER - REPAIR AS NEEDED	6422007	6.0h Jan-17-14 04:30 PM	6.0h Jan-17-14 10:00 AM	Jan-17-14 04:30 AM	ASH										
A5690	CLEAN AND MIC BEARING CLEARANCE - REPAIR AS NEEDED	6422007	6.0h Jan-17-14 04:30 PM	6.0h Jan-17-14 09:30 AM	Jan-16-14 09:30 AM	ASH										
A5700	AFTER CLEANING, INSTALL BEARING AND BEARING COVER	6422007	4.0h Jan-17-14 04:30 PM	4.0h Jan-18-14 08:30 AM	Jan-18-14 01:30 PM	ASH										
A5710	INSTALL MOTOR ENDBELL	6422007	10.0h Jan-18-14 01:30 PM	10.0h Jan-20-14 03:30 PM	Jan-21-14 01:00 PM	ASH										
A5720	CHECK ALIGNMENT, CORRECT AS NEEDED	6422007	8.0h Jan-20-14 03:30 PM	40.0h Jan-21-14 01:00 PM	Jan-25-14 11:00 AM, HAR2-OH-4-OH-6-BS-	ASH										
A5730	STEAM CLEAN I.D. FAN MOTOR	6422007	40.0h Jan-21-14 01:00 PM	40.0h Jan-25-14 11:00 AM	Jan-25-14 11:00 AM	ASH										
HAR2-OH-4-OH-6-BS-13-2 East ID Fans "B"								Jan-21-14 05:00 PM, HAR2-OH-4-OH-6-B								
A5740	REMOVE MOTOR ENDBELL	6422015	4.0h Jan-21-14 01:00 PM	4.0h Jan-21-14 05:00 PM	Jan-22-14 10:30 AM	ASH										
A5750	REMOVE & INSPECT BEARING & COVER - REPAIR AS NEEDED	6422015	4.0h Jan-21-14 05:00 PM	6.0h Jan-22-14 10:30 AM	Jan-22-14 04:30 PM	ASH										
A5760	CLEAN AND MIC BEARING CLEARANCE - REPAIR AS NEEDED	6422015	6.0h Jan-22-14 10:30 AM	4.0h Jan-22-14 04:30 PM	Jan-23-14 01:00 AM	ASH										
A5770	AFTER CLEANING, INSTALL BEARING AND BEARING COVER	6422015	4.0h Jan-22-14 04:30 PM	10.0h Jan-23-14 02:00 PM	Jan-24-14 01:30 AM	ASH										
A5780	INSTALL MOTOR ENDBELL	6422015	10.0h Jan-23-14 02:00 PM	8.0h Jan-24-14 01:30 PM	Jan-25-14 11:00 AM	ASH										
A5790	CHECK ALIGNMENT, CORRECT AS NEEDED	6422015	8.0h Jan-24-14 01:30 PM	100.5h Jan-25-14 01:00 PM	Jan-25-14 01:00 PM	BLR										
A5800	STEAM CLEAN I.D. FAN MOTOR	6422015	100.5h Jan-25-14 01:00 PM	6.0h Jan-16-14 04:30 PM	Jan-17-14 12:00 PM	BLR										
HAR2-OH-4-OH-6-BS-13-3 West F.D. Fans								Jan-28-14 01:00 PM, HAR2-OH-4-OH-6-B								
A6830	OPEN & INSPECT FAN HOUSING	6420928	8.0h Jan-17-14 12:30 PM	10.0h Jan-18-14 08:30 AM	Jan-18-14 08:30 AM	CO										
A6830	CLEAN BLADES	6420928	8.0h Jan-17-14 12:30 PM	10.0h Jan-20-14 08:30 AM	Jan-21-14 01:00 PM	BLR										
A6830	SANDBLAST WELDS	6420928	8.0h Jan-17-14 12:30 PM	20.0h Jan-21-14 01:00 PM	Jan-23-14 12:00 PM	BLR										
A6830	NDE FAN BLADES	6420928	8.0h Jan-17-14 12:30 PM	2.0h Jan-23-14 02:00 PM	Jan-23-14 02:00 PM	BLR										
A6830	MAKE/WELD REPAIRS AS NEEDED	6420928	2.0h Jan-23-14 02:00 PM	2.0h Jan-24-14 04:00 PM	Jan-24-14 04:00 PM	BLR										
A6830	CLOSE FAN HOUSING AFTER INSPECTIONS	6420928	8.0h Jan-24-14 04:00 PM	8.0h Jan-25-14 11:00 AM	Jan-27-14 11:00 AM	BLR										
A6830	CHECK COUPLING	6420928	8.0h Jan-25-14 11:00 AM	12.5h Jan-27-14 11:00 AM	Feb-08-14 11:00 AM	BLR										
A6830	GREASE AS NEEDED	6420928	12.5h Jan-27-14 11:00 AM	100.5h Jan-28-14 01:00 PM	Feb-08-14 11:00 AM	BLR										
A6830	MAKE REPAIRS AS NEEDED	6420928	4.0h Jan-28-14 01:00 PM	4.0h Jan-28-14 05:00 PM	Jan-28-14 05:00 PM	BLR										
A6830	CLOSE FAN HOUSING AFTER INSPECTIONS	6420928	4.0h Jan-28-14 05:00 PM	8.0h Jan-29-14 12:30 PM	Jan-30-14 01:00 AM	CO										
A6830	MAKE/WELD REPAIRS AS NEEDED	6420928	8.0h Jan-29-14 12:30 PM	10.0h Jan-31-14 07:30 AM	Jan-31-14 07:30 AM	NDE										
A6830	CLOSE FAN HOUSING AFTER INSPECTIONS	6420928	10.0h Jan-31-14 07:30 AM	4.0h Feb-01-14 07:00 AM	Feb-01-14 11:00 AM	BLR										
A6830	CHECK COUPLING	6420928	4.0h Feb-01-14 07:00 AM	20.0h Feb-01-14 11:00 AM	Feb-02-14 12:30 PM	BLR										
A6830	GREASE AS NEEDED	6420928	20.0h Feb-01-14 11:00 AM	2.0h Feb-04-14 02:30 PM	Feb-04-14 04:30 PM	BLR										
A6830	MAKE REPAIRS AS NEEDED	6420928	2.0h Feb-04-14 02:30 PM	8.0h Feb-04-14 04:30 PM	Feb-05-14 02:00 PM	BLR										
A6830	REMOVE UPPER HALF END BELL	6420928	8.0h Feb-05-14 02:00 PM	8.0h Feb-05-14 11:30 AM	Feb-07-14 09:00 AM	BLR										
A6830	INSPECT & CLEAN AS NEEDED	6420928	8.0h Feb-05-14 11:30 AM	8.0h Feb-06-14 11:30 AM	Page 15 of 38											
A6830	INSTALL ENDBELL AFTER INSPECTION	6420928	8.0h Feb-06-14 11:30 AM	8.0h Feb-07-14 09:00 AM	Page 15 of 38											
HAR2-OH-4-OH-6-BS-13-4 East ID Fans								TASK filter: All Activities								
A6870	OPEN & INSPECT FAN HOUSING	6420900	4.0h Jan-28-14 01:00 PM	4.0h Jan-28-14 05:00 PM	Jan-28-14 05:00 PM	BLR										
A6870	CLEAN BLADES	6420900	4.0h Jan-28-14 05:00 PM	8.0h Jan-29-14 10:00 AM	Jan-30-14 01:00 AM	CO										
A6870	SANDBLAST WELDS	6420900	8.0h Jan-29-14 10:00 AM	8.0h Jan-31-14 07:30 AM	Jan-31-14 07:30 AM	NDE										
A6870	NDE FAN BLADES	6420900	8.0h Jan-31-14 07:30 AM	4.0h Feb-01-14 07:00 AM	Feb-01-14 11:00 AM	BLR										
A6870	MAKE/WELD REPAIRS AS NEEDED	6420900	4.0h Feb-01-14 07:00 AM	20.0h Feb-01-14 11:00 AM	Feb-02-14 12:30 PM	BLR										
A6870	CLOSE FAN HOUSING AFTER INSPECTIONS	6420900	20.0h Feb-01-14 11:00 AM	2.0h Feb-04-14 02:30 PM	Feb-04-14 04:30 PM	BLR										
A6870	CHECK COUPLING	6420900	2.0h Feb-04-14 02:30 PM	8.0h Feb-04-14 04:30 PM	Feb-05-14 02:00 PM	BLR										
A6870	INSPECT & CLEAN AS NEEDED	6420900	8.0h Feb-05-14 02:00 PM	8.0h Feb-06-14 11:30 AM	Feb-07-14 09:00 AM	BLR										
A6880	INSTALL ENDBELL AFTER INSPECTION	6420900	8.0h Feb-06-14 11:30 AM	8.0h Feb-07-14 09:00 AM	Page 15 of 38											

Harrington Station Maintenance Schedules

Harrington Unit 2 OVH HP/IP, LP, Gen		PROJ-S-01 Complete Schedule										Jan-10-14 04:25 PM								
Activity ID	Activity Name	Start	Remaining Duration	Finish	Responsible Crew	January 2014	February 2014	March 2014	06	13	20	27	03	10	17	24	03	10	17	
A8770	INSPECT FLUID DRIVES ON FANS	6/20/2013	12.5h	Feb-07-14 06:00 AM	Feb-08-14 11:00 AM															
HAR2-OH-4-OH-6-SS-14 Air Preheater Cleaning and Repairs																				
A8820	PREP WORK FOR AIR PREHEATER WASH	6/20/2013	16.0h	Feb-08-14 11:00 AM	Feb-10-14 04:00 PM															
A8830	PREP WORK FOR AIR PREHEATER WASH - REMOVE DRAINAGE PIPING FOR AIR PREHEATER WASH	6/20/2013	26.0h	Feb-10-14 04:00 PM	Feb-11-14 10:00 PM															
A8900	Perform APH Wash	6/20/2013	2.0h	Feb-11-14 12:00 PM																
A9120	H2 OUTAGE-AIR PREHEATER ROTATION MOTOR - CHANGE BEARINGS	6/20/2013	9.0h	Feb-11-14 12:00 PM	Feb-11-14 03:00 PM															
HAR2-OH-4-OH-6-SS-14 East Air Preheater																				
A6470	OPEN ACCESS DOORS OF PREHEATER FOR INSPECTION	6/20/2013	3.0h	Feb-12-14 07:00 PM																
A6480	LAY TARP & KNOCK ASH OUT OF EXPANSION JOINTS	6/20/2013	6.0h	Feb-12-14 01:00 PM	Feb-12-14 07:00 PM															
A6490	SHOTGUN AS NEEDED TO REMOVE ASH	6/20/2013	3.0h	Feb-12-14 07:00 PM	Feb-12-14 10:00 PM															
A6500	CONTRACTOR REPAIR EXPANSION JOINTS, SUPPORT STRUCTURE, ETC	6/20/2013	15.0h	Feb-12-14 10:00 PM	Feb-12-14 05:00 PM															
A6510	CLEAN TARP'S OFF	6/20/2013	2.0h	Feb-12-14 05:00 PM	Feb-12-14 07:00 PM															
A6520	REMOVE TARTS	6/20/2013	3.0h	Feb-12-14 07:00 PM	Feb-12-14 10:00 PM															
A6530	DRAIN OIL FROM GEAR BOX	6/20/2013	6.0h	Feb-12-14 10:00 PM	Feb-13-14 06:00 AM															
A6540	INSPECT GEARBOX & COUPLING, REPAIR AS NEEDED	6/20/2013	3.0h	Feb-13-14 06:00 AM	Feb-13-14 09:00 PM															
A6550	CHANGE FILTERS ON SUPPORT AND GUIDE BEARINGS	6/20/2013	3.0h	Feb-13-14 09:00 PM																
A6560	REFILL GEARBOX WITH NEW OIL	6/20/2013	2.0h	Feb-13-14 09:00 PM	Feb-14-14 02:00 AM															
A6570	CLEAN STEAM COILS AS NEEDED	6/20/2013	12.0h	Feb-14-14 02:00 AM	Feb-14-14 06:00 PM															
A6580	INSPECT AIR PREHEATER AND MAKE REPAIRS AS NEEDED	6/20/2013	2.0h	Feb-14-14 06:00 PM	Feb-14-14 09:00 PM															
A6590	CHECK PREHEATER SEALS, ROTOR TOP RADIAL, BOTTOM RADIAL, TOP BY-PASS, ROTOR AXIAL & POST	6/20/2013	6.0h	Feb-14-14 09:00 PM	Feb-15-14 03:00 AM															
A6600	CHECK ALIGNMENT (CORRECT AS NEEDED)	6/20/2013	9.0h	Feb-15-14 03:00 AM	Feb-15-14 11:00 PM															
A6610	CLOSE DOORS	6/20/2013	8.0h	Feb-15-14 11:00 PM	Feb-17-14 03:00 PM															
HAR2-OH-4-OH-6-SS-14 West Air Preheater																				
A6620	OPEN ACCESS DOORS OF PREHEATER FOR INSPECTION	6/20/2013	1.0h	Feb-17-14 03:00 PM	Feb-17-14 04:00 PM															
A6630	LAY TARP & KNOCK ASH OUT OF EXPANSION JOINTS	6/20/2013	6.0h	Feb-17-14 04:00 PM	Feb-17-14 06:00 PM															
A6640	SHOTGUN AS NEEDED TO REMOVE ASH	6/20/2013	3.0h	Feb-17-14 06:00 PM	Feb-17-14 10:00 PM															
A6650	CONTRACTOR REPAIR EXPANSION JOINTS, SUPPORT STRUCTURE, ETC	6/20/2013	15.0h	Feb-17-14 10:00 PM	Feb-18-14 01:00 AM															
A6670	REFILL GEARBOX WITH NEW OIL	6/20/2013	2.0h	Feb-18-14 01:00 AM	Feb-18-14 04:00 PM															
A6680	CLEAN STEAM COILS AS NEEDED	6/20/2013	12.0h	Feb-18-14 04:																

Harrington Station Maintenance Schedules

Harrington Unit 2 OVH HP/IP, LP, Gen		PROJ-S-01 Complete Schedule									
Activity ID	Activity Name	Start	Remaining Duration	Finish	Responsible Crew	January 2014	February 2014	March 2014	April 2014	May 2014	
		06	07	08	09	10	11	12	13	14	
A21810	Operations Fill Boiler and Backfill Super Heater	6441776	10.0h	Mar-05-14 08:30 AM	Mar-06-14 09:30 AM	Mar-19-14 02:00 AM	Mar-19-14 12:00 PM*	Mar-19-14 02:00 AM	Mar-19-14 02:00 AM	Mar-19-14 02:00 AM	Mar-19-14 02:00 AM
A21820	Boiler Acid Rinse Operations	6441776	0.0h								
A21830	Acid Rinse Complete	6441776									
A21840	Acid Solution Drained to Frac Tanks	6441776									
A21850	Open Steam Drum for Inspection	6441776									
A21860	Perform Steam Drum Inspection	6441776									
A21870	Close Steam Drum and Sign Off Clearance	6441776									
A21880	Clean Up and Demob	6441776									
HAR-2-CH-4-OH-4-BF-1 Main Boiler Feed Pump		9:00 AM	Jan-08-14 02:30 PM	1:30 PM	Jan-08-14 02:30 PM	Jan-24-14 11:30 AM	Jan-24-14 05:00 PM	Mar-20-14 03:00 PM	Mar-21-14 02:00 PM	Mar-21-14 02:00 PM	Mar-21-14 02:00 PM
A6170	H2_OU-TAGE-MBFP REIRCULATION RELIEF - REMOVE SAFETY VALVE	6425233	2.0h	Jan-09-14 02:30 PM	9:00 AM	Jan-09-14 02:30 PM	Jan-20-14 03:00 PM	Jan-20-14 03:00 PM	Jan-20-14 03:00 PM	Jan-20-14 03:00 PM	Jan-20-14 03:00 PM
A6150	H2 MBFP COUPLING INSPECTION	6437156	0.0h	Jan-09-14 02:30 PM							
A6090	H2 CLEAN AND INSPECT MBFP LUBE OIL COOLER	6437164	0.0h	Jan-09-14 02:30 PM							
A6200	H2_OUTAGE--MBFP REIRCULATION RELIEF - INSTALL SAFETY VALVE	6425233	4.0h	Jan-09-14 04:30 PM	1:00 AM	Jan-09-14 04:30 PM	Jan-10-14 01:00 AM	Jan-10-14 01:00 AM	Jan-10-14 01:00 AM	Jan-10-14 01:00 AM	Jan-10-14 01:00 AM
A6180	H2_OUTAGE--MBFP REIRCULATION RELIEF - PACK and LOAD VALVE for SHIPPING	6425233	0.0h	Jan-09-14 04:30 PM							
A6190	H2_OUTAGE--MBFP REIRCULATION RELIEF - M&L REFURBISHES and RESETS VALVE, RETURNS VALVE to PLANT	6425233	0.0h	Jan-09-14 04:30 PM							
A7370	H2_OUTAGE - MBFP SUCTION STRAINER - REMOVE COVER AND STRAINER	6426092	8.0h	Jan-10-14 10:00 AM	2:00 PM	Jan-11-14 07:30 AM	Jan-11-14 07:30 AM	Jan-11-14 07:30 AM	Jan-11-14 07:30 AM	Jan-11-14 07:30 AM	Jan-11-14 07:30 AM
A7380	H2_OUTAGE - MBFP SUCTION STRAINER-CLEAN STRAINER	6426092	2.0h	Jan-11-14 07:30 AM							
A7390	H2_OUTAGE - MBFP SUCTION STRAINER - INSTALL STRAINER & COVER AFTER INSPECTION & CLEANING	6426092	8.0h	Jan-11-14 08:30 AM	2:00 PM	Jan-13-14 07:30 AM	Jan-13-14 07:30 AM	Jan-13-14 07:30 AM	Jan-13-14 07:30 AM	Jan-13-14 07:30 AM	Jan-13-14 07:30 AM
A11730	H2_OUTAGE-HP HEATER RELIEF - REMOVE SAFETY VALVE	6425125	12.0h	Jan-13-14 08:30 AM	1:00 AM	Jan-14-14 11:00 AM	Jan-14-14 11:00 AM	Jan-14-14 11:00 AM	Jan-14-14 11:00 AM	Jan-14-14 11:00 AM	Jan-14-14 11:00 AM
A11750	H2_OUTAGE-HP HEATER RELIEF - M&L REFURBISHES and RESETS VALVE, RETURNS VALVE to PLANT	6425125	0.0h	Jan-13-14 08:30 AM							
A11760	H2_OUTAGE-HP HEATER RELIEF - INSTALL SAFETY VALVE	6425125	24.0h	Jan-14-14 11:00 AM	1:00 AM	Jan-16-14 02:00 PM	Jan-16-14 02:00 PM	Jan-16-14 02:00 PM	Jan-16-14 02:00 PM	Jan-16-14 02:00 PM	Jan-16-14 02:00 PM
A11800	H2_OUTAGE - STROKE AND CALIBRATE TFP VALVES	6422170	4.0h	Jan-16-14 02:00 PM	2:00 PM	Jan-17-14 07:30 AM	Jan-17-14 07:30 AM	Jan-17-14 07:30 AM	Jan-17-14 07:30 AM	Jan-17-14 07:30 AM	Jan-17-14 07:30 AM
A3320	H2_OUTAGE-TBFP PANELS - CLEAN AND INSPECT	6426088	3.0h	Jan-17-14 07:30 AM							
A6170	H2_OU-TAGE-TBFP SUPERVISORY-CALIBRATE SUPERVISORY	6426079	30.0h	Jan-17-14 07:30 AM	1:00 PM	Jan-17-14 08:30 AM	Jan-17-14 08:30 AM	Jan-17-14 08:30 AM	Jan-17-14 08:30 AM	Jan-17-14 08:30 AM	Jan-17-14 08:30 AM
HAR-2-CH-4-OH-4-BF-2 Startup Boiler Feed Pump		1:00 PM	Jan-17-14 08:30 AM	1:30 PM	Jan-17-14 08:30 AM	Jan-21-14 05:00 PM	Jan-21-14 05:00 PM	Jan-21-14 05:00 PM	Jan-21-14 05:00 PM	Jan-21-14 05:00 PM	Jan-21-14 05:00 PM
A21910	#2 UNIT-SUBFP WARM UP ORICE	6425090	0.0h	Jan-13-14 08:30 AM							
A6310	H2_OUTAGE--SUBFP PANELS - CLEAN AND INSPECT	6425090	3.0h	Jan-13-14 08:30 AM							
A6040	H2 SUBFP DISCHARGE CHECK VALVE OVERHAUL	6425096	0.0h	Jan-21-14 11:30 AM							
A6070	H2_OUTAGE - SUBFP SUCTION STRAINER - REMOVE COVER AND STRAINER	6425096	8.0h	Jan-21-14 02:30 PM	2:00 PM	Jan-22-14 12:00 PM	Jan-22-14 12:00 PM	Jan-22-14 12:00 PM	Jan-22-14 12:00 PM	Jan-22-14 12:00 PM	Jan-22-14 12:00 PM
A6080	H2_OUTAGE - SUBFP SUCTION STRAINER - CLEAN STRAINER	6425096	8.0h	Jan-22-14 02:00 PM	2:00 PM	Jan-23-14 11:30 AM	Jan-23-14 11:30 AM	Jan-23-14 11:30 AM	Jan-23-14 11:30 AM	Jan-23-14 11:30 AM	Jan-23-14 11:30 AM
A6590	H2_OUTAGE - SUBFP SUCTION STRAINER - INSTALL STRAINER & COVER AFTER INSPECTION & CLEANING	6425100	10.0h	Jan-23-14 11:30 AM	2:00 PM	Jan-24-14 11:30 AM	Jan-24-14 11:30 AM	Jan-24-14 11:30 AM	Jan-24-14 11:30 AM	Jan-24-14 11:30 AM	Jan-24-14 11:30 AM
A6100	H2_OUTAGE - CHANGE SUBFP OIL FILTERS - CHECK AND CHANGE FILTERS AS NEEDED	6437238	0.0h	Jan-24-14 11:30 AM							
A6110	H2 SUBFP SUCTION RELIEF VLV CALIBRATION	6437238	2.0h	Jan-24-14 11:30 AM							
A6120	H2_OUTAGE-SUBFP REIRCULATION RELIEF - REMOVE SAFETY VALVE	6425227	0.0h	Jan-24-14 11:30 AM							
A6130	H2_OUTAGE-SUBFP REIRCULATION RELIEF - PACK and LOAD VALVE for SHIPPING	6425227	0.0h	Jan-24-14 01:00 PM							
A6140	H2_OUTAGE-SUBFP REIRCULATION RELIEF - M&L REFURBISHES and RESETS VALVE, RETURNS VALVE to PLANT	6425227	0.0h	Jan-24-14 01:00 PM							
A6150	H2_OUTAGE-SUBFP REIRCULATION RELIEF - INSTALL SAFETY VALVE	6425227	4.0h	Jan-24-14 01:00 PM	2:00 PM	Jan-24-14 05:00 PM	Jan-24-14 05:00 PM	Jan-24-14 05:00 PM	Jan-24-14 05:00 PM	Jan-24-14 05:00 PM	Jan-24-14 05:00 PM
A6160	H2_OUTAGE-SUBFP REIRCULATION RELIEF - GIVE RECORDS to ENGINEER for FILING	6425227	0.0h	Jan-24-14 05:00 PM							
HAR-2-CH-4-OH-4-CT-1 Cooling Tower		74.0h	Jan-24-14 05:00 PM	1:00 AM	Feb-05-14 11:00 AM	Feb-05-14 11:00 AM	Feb-05-14 11:00 AM	Feb-05-14 11:00 AM	Feb-05-14 11:00 AM	Feb-05-14 11:00 AM	Feb-05-14 11:00 AM
HAR-2-CH-4-OH-4-CT-1 Cooling Tower System		170.0h	Jan-24-14 05:00 PM	1:00 AM	Feb-05-14 09:00 AM	Feb-05-14 09:00 AM	Feb-05-14 09:00 AM	Feb-05-14 09:00 AM	Feb-05-14 09:00 AM	Feb-05-14 09:00 AM	Feb-05-14 09:00 AM
A9240	H2_OUTAGE-COOLING TOWER SWITCHGEAR - CLEAN INSPECT AND MEGGER	6426234	60.0h	Jan-24-14 05:00 PM							
A20630	Cooling Towers - INSPECT COOLING TOWER STRUCTURE AND BASIN PROTECTIVE PAINT; PAINT AS NEEDED.	5952228	10.0h	Jan-29-14 06:00 AM							
A20640	Cooling Towers - INSPECT COOLING TOWER STRUCTURE AND BASIN PROTECTIVE PAINT; PAINT AS NEEDED.	5952250	10.0h	Jan-29-14 07:00 PM							
A20650	Cooling Towers - INSPECT COOLING TOWER STRUCTURE AND BASIN PROTECTIVE PAINT; PAINT AS NEEDED.	5952251	10.0h	Jan-30-14 06:00 AM							
HAR-2-CH-4-OH-4-CT-2 Cooling Tower		74.0h	Jan-24-14 05:00 PM	1:00 AM	Feb-05-14 11:00 AM	Feb-05-14 11:00 AM	Feb-05-14 11:00 AM	Feb-05-14 11:00 AM	Feb-05-14 11:00 AM	Feb-05-14 11:00 AM	Feb-05-14 11:00 AM
HAR-2-CH-4-OH-4-CT-2 Cooling Tower		170.0h	Jan-24-14 05:00 PM	1:00 AM	Feb-05-14 09:00 AM	Feb-05-14 09:00 AM	Feb-05-14 09:00 AM	Feb-05-14 09:00 AM	Feb-05-14 09:00 AM	Feb-05-14 09:00 AM	Feb-05-14 09:00 AM
TASK filter: All Activities											
Project Baseline Bar			Remaining Work								
Actual Work			Critical Remaining Work								

© Oracle Corporation

Harrington Station Maintenance Schedules

Harrington Unit 2 Ovh HPIP, LP, Gen											Jan-10-14 04:25 PM										
Activity ID	Activity Name	PROJ-S-01 Complete Schedule										Jan-10-14 04:25 PM									
		Maximo Work Order	Remaining Duration	Start	Finish	January 2014		February 2014		March 2014		Remaining Crew		January 2014		February 2014		March 2014			
A20680	Cooling Towers - INSPECT COOLING TOWER STRUCTURE AND BASIN PROTECTIVE PAINT; PAINT AS NEEDED.	5982252	10.0h	Jan-30-14 07:00 PM	Jan-31-14 08:00 AM	Feb-01-14 12:00 AM	Zachy	Feb-03-14 11:00 AM	Feb-04-14 02:00 AM	Feb-05-14 11:00 AM	Feb-06-14 01:00 PM	-	-	Feb-08-14 11:00 AM	Feb-09-14 11:00 AM	Feb-10-14 01:00 PM	Feb-11-14 11:00 AM	Feb-12-14 01:00 PM	Feb-13-14 11:00 AM		
A11620	Cooling Towers - INSPECT/REPAIR COOLING TOWER STRUCTURE AS REQUIRED	5982344	15.0h	Jan-31-14 09:00 AM	Feb-01-14 12:00 AM	Zachy	Feb-03-14 11:00 AM	Feb-04-14 02:00 AM	Feb-05-14 11:00 AM	Feb-06-14 01:00 PM	Feb-07-14 12:00 AM	-	-	Feb-09-14 11:00 AM	Feb-10-14 11:00 AM	Feb-11-14 01:00 PM	Feb-12-14 11:00 AM	Feb-13-14 01:00 PM	Feb-14-14 11:00 AM		
A20670	Cooling Towers - INSPECT/REPAIR COOLING TOWER STRUCTURE AS REQUIRED	5982345	15.0h	Feb-01-14 02:00 AM	Feb-02-14 05:00 AM	Zachy	Feb-04-14 02:00 AM	Feb-05-14 02:00 AM	Feb-06-14 01:00 PM	Feb-07-14 12:00 AM	Feb-08-14 12:00 AM	-	-	Feb-10-14 11:00 AM	Feb-11-14 11:00 AM	Feb-12-14 01:00 PM	Feb-13-14 11:00 AM	Feb-14-14 01:00 PM	Feb-15-14 11:00 AM		
A20680	Cooling Towers - INSPECT/REPAIR COOLING TOWER STRUCTURE AS REQUIRED	5982346	15.0h	Feb-04-14 08:00 PM	Feb-05-14 11:00 AM	Zachy	Feb-06-14 01:00 PM	Feb-07-14 12:00 AM	Feb-08-14 12:00 AM	Feb-09-14 12:00 AM	Feb-10-14 12:00 AM	-	-	Feb-12-14 01:00 PM	Feb-13-14 11:00 AM	Feb-14-14 01:00 PM	Feb-15-14 11:00 AM	Feb-16-14 01:00 PM	Feb-17-14 11:00 AM		
A20710	Cooling Towers - Inspect header piping	6041659	10.0h	Feb-04-14 09:00 PM	Feb-05-14 11:00 AM	Zachy	Feb-06-14 11:00 AM	Feb-07-14 12:00 AM	Feb-08-14 12:00 AM	Feb-09-14 12:00 AM	Feb-10-14 12:00 AM	-	-	Feb-12-14 01:00 PM	Feb-13-14 11:00 AM	Feb-14-14 01:00 PM	Feb-15-14 11:00 AM	Feb-16-14 01:00 PM	Feb-17-14 11:00 AM		
A20720	Cooling Towers - Inspect header piping thickness	6041661	10.0h	Feb-04-14 09:00 PM	Feb-05-14 11:00 AM	Zachy	Feb-06-14 11:00 AM	Feb-07-14 12:00 AM	Feb-08-14 12:00 AM	Feb-09-14 12:00 AM	Feb-10-14 12:00 AM	-	-	Feb-12-14 01:00 PM	Feb-13-14 11:00 AM	Feb-14-14 01:00 PM	Feb-15-14 11:00 AM	Feb-16-14 01:00 PM	Feb-17-14 11:00 AM		
HAR2-OH-4-OH-6-C1-T-2. Misc CT Work		6236983	0.0h	Jan-29-14 09:00 AM	Jan-30-14 01:00 PM	Zachy	Jan-31-14 01:00 PM	-	-	Jan-31-14 01:00 PM											
HAR2-OH-4-OH-6-CW Circulating Water System		Feb-08-14 11:00 AM HAR2-OH-4										Feb-08-14 11:00 AM HAR2-OH-4									
HAR2-OH-4-OH-6-CMC Condenser		Feb-08-14 11:00 AM HAR2-OH-4										Feb-08-14 11:00 AM HAR2-OH-4									
HAR2-OH-4-OH-6-CMC-2 Routine BOP Inspections - Condenser		Feb-08-14 11:00 AM HAR2-OH-4										Feb-08-14 11:00 AM HAR2-OH-4									
A5320	MAIN CONDENSER WATER BOXES - OPEN ALL MAIN CONDENSER DOORS FOR INSPECTION	6422177	8.0h	Jan-13-14 07:00 AM	Jan-14-14 07:00 AM	Jan-14-14 03:00 PM	TAUX	Jan-15-14 02:00 PM	Jan-15-14 02:00 PM	Jan-15-14 03:00 PM	TEI	-	-	Jan-16-14 03:00 PM							
A5330	MAIN CONDENSER WATER BOXES - CONTRACTOR REPAIR CONDENSER TUBES	6422177	120.0h	Jan-25-14 02:00 PM	Jan-26-14 02:00 PM	Jan-26-14 03:30 PM	TAUX	Jan-27-14 01:00 PM	Jan-27-14 01:00 PM	Jan-27-14 01:00 PM	TEI	-	-	Jan-28-14 01:00 PM							
A5340	MAIN CONDENSER WATER BOXES - CLOSE ALL MAIN CONDENSER DOORS FOLLOWING INSPECTION AND CLEANING	6422177	0.0h	Jan-28-14 01:00 PM	Jan-28-14 01:00 PM	TAUX	Jan-29-14 01:00 PM	Jan-29-14 01:00 PM	Jan-29-14 01:00 PM	TAUX	-	-	Jan-30-14 01:00 PM								
A5350	MAIN CONDENSER ISOLATION VALVES AND AMERTAP SCREENS - CLEAN AMERTAP SCREENS IN CONDENSER CIRCUIT PIPES	6422182	10.0h	Jan-29-14 02:30 PM	Jan-30-14 02:30 PM	Jan-30-14 04:30 PM	TAUX	Jan-31-14 01:00 PM	Jan-31-14 01:00 PM	Jan-31-14 01:00 PM	TAUX	-	-	Jan-32-14 01:00 PM							
A5360	MAIN CONDENSATE PUMP, ISOLATION VALVES AND AMERTAP SCREENS - INSPECT CONDENSER CIRCUIT PIPE SHUTOFF VALVES	6422182	2.0h	Jan-30-14 02:30 PM	Jan-30-14 04:30 PM	Jan-31-14 01:00 PM	TAUX	Jan-31-14 01:00 PM	Jan-31-14 01:00 PM	Jan-31-14 01:00 PM	TAUX	-	-	Jan-32-14 01:00 PM							
A5370	MAIN CONDENSATE PUMP, ISOLATION VALVES AND AMERTAP SCREENS - INSPECT CONDENSER CIRCUIT PIPE SHUTOFF VALVES	6422186	3.0h	Jan-30-14 04:30 PM	Jan-31-14 04:30 PM	Jan-31-14 12:00 PM	TAUX	Jan-31-14 12:00 PM	Jan-31-14 12:00 PM	Jan-31-14 12:00 PM	TAUX	-	-	Jan-32-14 12:00 PM							
A5380	MAIN CONDENSATE PUMP, ISOLATION VALVES AND AMERTAP SCREENS - INSPECT CONDENSER CIRCUIT PIPE SHUTOFF VALVES	6422186	8.0h	Jan-31-14 04:30 PM	Jan-31-14 09:00 AM	Feb-01-14 01:00 PM	TAUX	Feb-01-14 01:00 PM	Feb-01-14 01:00 PM	Feb-01-14 01:00 PM	TAUX	-	-	Feb-02-14 01:00 PM							
A5390	MAIN CONDENSER HOT WELL - OPEN DOORS	6422191	4.0h	Feb-03-14 01:30 AM	Feb-03-14 03:30 PM	Feb-04-14 03:30 AM	TAUX	Feb-04-14 03:30 AM	Feb-04-14 03:30 AM	Feb-04-14 03:30 AM	TAUX	-	-	Feb-05-14 03:30 AM							
A5400	MAIN CONDENSER HOT WELL - REMOVE BOTH STRAINERS	6422191	4.0h	Feb-04-14 09:00 AM	Feb-04-14 09:00 AM	Feb-04-14 10:00 PM	TAUX	Feb-05-14 01:00 PM	Feb-05-14 01:00 PM	Feb-05-14 01:00 PM	TAUX	-	-	Feb-06-14 01:00 PM							
A5410	MAIN CONDENSER HOT WELL - REMOVE BOTH STRAINERS	6422191	4.0h	Feb-04-14 10:00 PM	Feb-05-14 01:00 PM	Feb-05-14 01:00 PM	TAUX	Feb-06-14 01:00 PM	Feb-06-14 01:00 PM	Feb-06-14 01:00 PM	TAUX	-	-	Feb-07-14 01:00 PM							
A5420	MAIN CONDENSATE PUMP - INSTALL STRAINERS & CLOSE DOORS TO HOTWELL.	6422191	6.0h	Feb-05-14 09:30 AM	Feb-06-14 01:00 PM	Feb-06-14 01:00 PM	TAUX	Feb-07-14 11:30 AM	Feb-08-14 07:30 AM	Feb-08-14 07:30 AM	TAUX	-	-	Feb-09-14 07:30 AM							
A5430	NORTH CONDENSATE PUMP - CHECK ALIGNMENT-CORRECT AS NEEDED	6422191	4.0h	Feb-06-14 01:30 AM	Feb-06-14 03:30 PM	Feb-07-14 03:30 AM	TAUX	Feb-08-14 03:30 AM	Feb-08-14 03:30 AM	Feb-08-14 03:30 AM	TAUX	-	-	Feb-09-14 03:30 AM							
A5440	NORTH CONDENSATE PUMP - CHANGE OIL IN BEARINGS	6422191	4.0h	Feb-06-14 08:00 AM	Feb-06-14 08:00 AM	Feb-06-14 12:00 PM	TAUX	Feb-07-14 12:00 PM	Feb-07-14 12:00 PM	Feb-07-14 12:00 PM	TAUX	-	-	Feb-08-14 12:00 PM							
A5450	NORTH CONDENSATE PUMP - GREASE COUPLING	6422191	4.0h	Feb-06-14 08:00 AM	Feb-06-14 08:00 AM	Feb-06-14 12:00 PM	TAUX	Feb-07-14 12:00 PM	Feb-07-14 12:00 PM	Feb-07-14 12:00 PM	TAUX	-	-	Feb-08-14 12:00 PM							
A5460	NORTH CONDENSATE PUMP - BOLT COUPLING BACK UP	6422191	4.0h	Feb-06-14 08:00 AM	Feb-06-14 08:00 AM	Feb-06-14 12:00 PM	TAUX	Feb-07-14 12:00 PM	Feb-07-14 12:00 PM	Feb-07-14 12:00 PM	TAUX	-	-	Feb-08-14 12:00 PM							
A5470	SOUTH CONDENSATE PUMP - CHECK COUPLING	6422197	4.0h	Feb-05-14 05:00 PM	Feb-05-14 05:00 PM	Feb-05-14 07:30 AM	TAUX	Feb-06-14 07:30 AM	Feb-06-14 07:30 AM	Feb-06-14 07:30 AM	TAUX	-	-	Feb-07-14 07:30 AM							
A5480	SOUTH CONDENSATE PUMP - CHECK ALIGNMENT-CORRECT AS NEEDED	6422197	4.0h	Feb-05-14 07:30 AM	Feb-05-14 07:30 AM	Feb-05-14 09:30 AM	TAUX	Feb-06-14 09:30 AM	Feb-06-14 09:30 AM	Feb-06-14 09:30 AM	TAUX	-	-	Feb-07-14 09:30 AM							
A5490	SOUTH CONDENSATE PUMP - CHANGE OIL IN BEARINGS	6422197	4.0h	Feb-05-14 09:30 AM	Feb-05-14 09:30 AM	Feb-05-14 11:30 AM	TAUX	Feb-06-14 11:30 AM	Feb-06-14 11:30 AM	Feb-06-14 11:30 AM	TAUX	-	-	Feb-07-14 11:30 AM							
A5510	SOUTH CONDENSATE PUMP - GREASE COUPLING	6422197	4.0h	Feb-05-14 11:30 AM	Feb-05-14 11:30 AM	Feb-05-14 14:00 PM	TAUX	Feb-06-14 14:00 PM	Feb-06-14 14:00 PM	Feb-06-14 14:00 PM	TAUX	-	-	Feb-07-14 14:00 PM							
A5520	SOUTH CONDENSATE PUMP - BOLT COUPLING BACK UP	6422197	4.0h	Feb-05-14 14:00 PM	Feb-05-14 14:00 PM	Feb-05-14 16:00 PM	TAUX	Feb-06-14 16:00 PM	Feb-06-14 16:00 PM	Feb-06-14 16:00 PM	TAUX	-	-	Feb-07-14 16:00 PM							
A10610	VACUUM PUMP SEAL WATER PRESS SWITCHES - PS3 #1 ASH SYS VAC PUMP SEAL WTR PRESS LOW	6419847	4.0h	Feb-07-14 01:30 AM	Feb-07-14 01:30 AM	Feb-07-14 05:00 PM	ELC	Feb-07-14 05:00 PM	Feb-07-14 05:00 PM	Feb-07-14 05:00 PM	ELC	-	-	Feb-08-14 05:00 PM							
A10620	VACUUM PUMP SEAL WATER PRESS SWITCHES - PS4 #2 ASH SYS VAC PUMP SEAL WTR PRESS LOW	6419847	4.0h	Feb-07-14 01:30 AM	Feb-07-14 01:30 AM	Feb-07-14 05:00 PM	ELC	Feb-07-14 05:00 PM	Feb-07-14 05:00 PM	Feb-07-14 05:00 PM	ELC	-	-	Feb-08-14 05:00 PM							
A10630	VACUUM PUMP SEAL WATER PRESS SWITCHES - PS2	6419847	4.0h	Feb-07-14 01:30 AM	Feb-07-14 01:30 AM	Feb-07-14 05:00 PM	ELC	Feb-07-14 05:00 PM	Feb-07-14 05:00 PM	Feb-07-14 05:00 PM	ELC	-	-	Feb-08-14 05:00 PM							
HAR2-OH-4-OH-6-FW Feedwater Relief Valve Work		Jan-30-14 09:00 AM HAR2-OH-4										Jan-30-14 09:00 AM HAR2-OH-4									
HAR2-OH-4-OH-6-FW#1 HP Heater Relief		Jan-30-14 09:00 AM HAR2-OH-4										Jan-30-14 09:00 AM HAR2-OH-4									
A23690	Feedwater High Pressure #1 Heater Tube Side Relief Valve	6425131	2.0h	Jan-16-14 05:00 PM	Jan-16-14 07:00 PM	Jan-16-14 07:00 PM	SHOP	-	-	-	-	-	-	Jan-16-14 07:00 PM							
A23690	Feedwater High Pressure #2 Heater Tube Side Relief Valve	6425137	1.0h	Jan-16-14 07:00 PM	Jan-20-14 02:00 PM	Jan-20-14 02:00 PM	SHOP	-	-	-	-	-	-	Jan-16-14 08:00 PM	Jan-16-14 08:00 PM	Jan-16-14 08:00 PM	Jan-16-14 08:00 PM	Jan-16-14 08:0			

Harrington Station Maintenance Schedules

Harrington Unit 2 OVH HP/IP, LP, Gen		PROJ-S-01 Complete Schedule						Jan-10-14 04:25 PM					
Activity ID	Activity Name	Maximo Work Order	Start Duration	Remaining Duration	Finish	Responsibility Crew	January 2014	February 2014	March 2014	06 13 20 27 03 10 17 24 03 10 17 24			
A23640	Feedwater High Pressure #3 Heater Shell Side Relief Valve	6425149	1.0n	Jan-24-14 02:00 PM	Jan-24-14 03:00 PM	SHOP							
HAR2-OH-4-OH-6-FW#4-2 LP Heater Relief		6425203	45.0h	Jan-23-14 12:00 PM	Jan-23-14 08:00 PM								
A23860	Feedwater Low Pressure #5 Heater Tube Side Relief Valve	6425197	2.0h	Jan-23-14 12:00 PM	Jan-23-14 12:00 PM	SHOP							
A23970	Feedwater Low Pressure #5 Heater Shell Side Relief Valve	6425185	2.0h	Jan-27-14 07:00 AM	Jan-27-14 09:00 AM	SHOP							
A23940	Feedwater Low Pressure #6 Heater Tube Side Relief Valve	6425191	1.0h	Jan-27-14 07:00 AM	Jan-27-14 08:00 AM	SHOP							
A23850	Feedwater Low Pressure #6 Heater Shell Side Relief Valve	6425179	2.0h	Jan-28-14 12:00 PM	Jan-28-14 12:00 PM	SHOP							
A23860	Feedwater Low Pressure #7 Heater Tube Side Relief Valve	6425173	1.0h	Jan-28-14 12:00 PM	Jan-28-14 01:00 PM	SHOP							
A24000	Feedwater Low Pressure #8 Heater Tube Side Relief Valve	6425215	2.0h	Jan-29-14 06:00 PM	Jan-29-14 07:00 PM	SHOP							
A24010	Feedwater Low Pressure #8 Heater Shell Side Relief Valve	6425221	1.0h	Jan-29-14 07:00 PM	Jan-29-14 08:00 PM	SHOP							
HAR2-OH-4-OH-6-FW#4-3 DA Heater Relief		6425209	2.0h	Jan-30-14 09:00 AM	Jan-30-14 09:00 AM	SHOP							
A24080	DA Heater Relief Valve		0.0h	Jan-30-14 07:00 AM	Jan-30-14 07:00 AM	SHOP							
HAR2-OH-4-OH-6-FW#5 Rework #3 Feedwater Heater Valves													
HAR2-OH-4-OH-6-MISC System Work -1 Misc System Work													
HAR2-OH-4-OH-6-MISC System Work-12 Hill Lo Heat Exchanger (Eddy Current Testing)													
A16580	Aux Coolers												
A16600	H2 Coolers												
A16610	Main Lube Oil Coolers												
HAR2-OH-4-OH-6-MISC System Work-1-2 Eddy Current Testing HP Heaters													
A23880	Remove Head of HP FW#1	6508289	15.0h	Jan-14-14 07:00 AM	Jan-14-14 12:00 PM	SHOP							
A23880	Perform Eddy Current Test HP FW#1												
A23890	Remove Head of HP FW#2	6508316	15.0h	Jan-15-14 12:00 PM	Jan-15-14 05:00 PM	SHOP							
A23910	Perform Eddy Current Test HP FW#2												
A23920	Remove Head of HP FW#3	6508319	15.0h	Jan-17-14 12:00 PM	Jan-17-14 07:00 AM	SHOP							
A23930	Perform Eddy Current Test HP FW#3												
A23980	Remove Head of LP FW#5	6508415	15.0h	Jan-20-14 12:00 PM	Jan-21-14 05:00 PM	SHOP							
A23980	Perform Eddy Current Test LP FW#5												
A24020	Remove Head of LP FW#6	6508416	15.0h	Jan-22-14 07:00 AM	Jan-22-14 12:00 PM	SHOP							
A24030	Perform Eddy Current Test LP FW#6												
A24040	Remove Head of LP FW#7	6508419	15.0h	Jan-23-14 12:00 PM	Jan-24-14 05:00 PM	SHOP							
A24050	Perform Eddy Current Test LP FW#7												
A24080	Remove Head of LP FW#8	6508420	15.0h	Jan-27-14 07:00 AM	Jan-28-14 12:00 PM	SHOP							
A24070	Perform Eddy Current Test LP FW#8												
HAR2-OH-4-OH-6-MISC System Work-1-1 FAC Piping Inspection													
A16520	FWH Shell - #5 LP FWH - 1st Floor	5831810	4.0h	Jan-06-14 12:00 PM	Jan-06-14 08:00 AM	SHOP							
A16660	HP Boiler FW - Pipe (US and 2 Feet DS of Flange) - 1st Floor	5831810	2.0h	Jan-06-14 04:00 PM	Jan-07-14 07:30 AM	NDE							
A16670	HP Boiler FW Recirc - Elbow Pipe from Steam Driven BFP - 1st Floor	5831810	1.0h	Jan-07-14 07:30 AM	Jan-07-14 08:30 AM	NDE							
A16680	HP Boiler FW - Flow Nozzle from Steam Driven BFP - 1st Floor	5831810	2.0h	Jan-07-14 08:30 AM	Jan-07-14 10:30 AM	NDE							
A16690	HP Boiler FW - Elbow Tee Pipe (1st Mixing Tee) - 1st Floor	5831810	3.0h	Jan-07-14 10:30 AM	Jan-07-14 12:00 PM	NDE							
A16700	HP Boiler FW - Expander Pipe (All) Elbow - Basement	5831810	2.0h	Jan-07-14 01:30 PM	Jan-07-14 03:30 PM	NDE							
A16710	HP Boiler FW - Flow Nozzle from Gear Driven BFP - Basement	5831810	2.0h	Jan-07-14 03:30 PM	Jan-07-14 05:30 PM	NDE							
A16720	HP Boiler FW Recirc - Pipe Elbow, Pipe from Header - Basement	5831810	2.0h	Jan-08-14 07:00 AM	Jan-08-14 09:00 AM	NDE							
A16770	HP Boiler FW Recirc - Elbow, Pipe DS of Control Valve - Basement	5831810	2.0h	Jan-08-14 09:00 AM	Jan-08-14 11:00 AM	NDE							
A16800	Desuperheater Spray - Pipe (45 Deg) Elbow, Pipe from Header - Basement	5831810	1.0h	Jan-08-14 11:00 AM	Jan-08-14 12:00 PM	NDE							
A16840	HP Boiler FW - Elbow, Tee Pipe (2nd Mixing Tee) - Basement	5831810	3.0h	Jan-08-14 12:00 PM	Jan-08-14 03:00 PM								

TASK filter: All Activities

© Oracle Corporation

Page 19 of 38

Harrington Station Maintenance Schedules

Harrington Unit 2 OVH HP/IP, LP, Gen		PROJ-S-01 Complete Schedule						Jan-10-14 04:25 PM								
Activity ID	Activity Name	Maximo Work Order	Start Duration	Remaining Duration	Finish	Responsible Crew	January 2014	February 2014	March 2014	06	13	20	27	03	10	17
A16860	HP Boiler FW - Tee, Elbow, Pipe (3rd Mixing Tee) - 1st Floor	5831810	3.0h	Jan-08-14 03:00 PM	Jan-08-14 07:30 AM	NDE										
A16870	HP Boiler FW - Tee, Pipes both sides (4th Mixing Tee) - 4th Floor	5831810	3.0h	Jan-09-14 07:30 AM	Jan-09-14 10:30 AM	NDE										
A16880	HP Boiler FW - Elbow, Pipe (East Side) - 9th Floor	5831810	2.0h	Jan-09-14 10:30 AM	Jan-09-14 12:30 PM	NDE										
A16890	HP Boiler FW - Elbow, Pipe (West Side) - 9th Floor	5831810	2.0h	Jan-09-14 12:30 PM	Jan-09-14 02:30 PM	NDE										
A16900	Heater Drains - Pipe DS or Office from HP Drain Pumps - 12th Floor	5831810	2.0h	Jan-09-14 02:30 PM	Jan-09-14 04:30 PM	NDE										
A16910	Heated Drains - Elbow, Reducer, Elbow, Pipe (West Side) - 13th Floor	5831810	1.0h	Jan-09-14 04:30 PM	Jan-10-14 08:00 AM	NDE										
A16920	Heater Drains - Pipe DS or Office from #2 HP FW/H - Basement	5831810	1.0h	Jan-10-14 08:00 AM	Jan-10-14 09:00 AM	NDE										
A16930	Heater Drains - Pipe DS or Office from #2 HP FW/H - Basement	5831810	2.0h	Jan-10-14 10:00 AM	Jan-10-14 12:00 PM	NDE										
A16940	Heater Drains - Elbow, Pipe DS of HP Drains North Pump - Basement	5831810	2.0h	Jan-10-14 12:00 PM	Jan-10-14 02:00 PM	NDE										
A17040	Heater Drains - Elbow, Pipe DS of HP Drains South Pump - Basement	5831810	4.0h	Jan-10-14 02:00 PM	Jan-11-14 07:30 AM	NDE										
A17050	Heater Drains - Moisture Separator and Piping (#6 LP FW/H) - 1st Floor	5831810	4.0h	Jan-11-14 07:30 AM	Jan-11-14 11:30 AM	NDE										
A17060	Heater Drains - Moisture Separator and Piping (#7 LP FW/H) - 1st Floor	5831810	4.0h	Jan-11-14 11:30 AM	Jan-12-14 07:30 AM	NDE										
A17070	Heater Drains - Moisture Separator and Piping (#8 LP FW/H) - 1st Floor	5831810	4.0h	Jan-12-14 07:30 AM	Jan-13-14 07:30 AM	NDE										
A17080	Heater Drains - Moisture Separator and Piping (#2 HP FW/H) - 1st Floor	5831810	4.0h	Jan-13-14 07:30 AM	Jan-13-14 03:30 PM	NDE										
A17090	Heater Drains - Moisture Separator and Piping (#3 HP FW/H) - 1st Floor	5831810	4.0h	Jan-13-14 03:30 PM	Jan-14-14 09:00 AM	NDE										
A17100	FWH Shell - #6 LP FW/H (2 Windows) - 1st Floor	5831810	4.0h	Jan-14-14 09:00 AM	Jan-14-14 01:00 PM	NDE										
A17110	FWH Shell - #7 LP FW/H (2 Windows) - 1st Floor	5831810	4.0h	Jan-14-14 01:00 PM	Jan-14-14 05:00 PM	NDE										
A17120	FWH Shell - #8 LP FW/H (3 Windows) - 1st Floor	5831810	4.0h	Jan-14-14 05:00 PM	Jan-15-14 01:00 AM	NDE										
A17130	FWH Shell - #3 HP FW/H (2 Windows) - 1st Floor	5831810	4.0h	Jan-15-14 01:00 AM	Jan-15-14 02:30 PM	NDE										
A17140	FWH Shell - #2 HP FW/H (2 Windows) - 1st Floor	5831810	4.0h	Jan-15-14 02:30 PM	Jan-16-14 06:00 AM	NDE										
A17150	FWH Shell - #1 HP FW/H (2 Windows) - 1st Floor	5831810	30.0h	Jan-21-14 07:00 AM	Jan-23-14 04:00 PM	NDE										
HAR2-OH-4-OH-6-MISC Systems Work-#3 Hanger Inspections		6383467	30.0h	Jan-21-14 07:00 AM	Jan-23-14 04:00 PM	NDE										
A20750	Hanger Inspections - Cold Hanger Inspections after unit is offline	6383467	0.0h	Jan-21-14 07:00 AM	Jan-23-14 04:00 PM	NDE										
A18010	Hanger Inspections - Project Start	6383467	0.0h	Jan-23-14 04:00 PM	Jan-23-14 04:00 PM	NDE										
A18020	Hanger Inspections - Project Finish	6383467	0.0h	Jan-23-14 04:00 PM	Jan-23-14 04:00 PM	NDE										
HAR2-OH-4-OH-6-MISC System Work-#2 Routing BOP Cleaning - Misc		6421532	12.0h	Jan-06-14 12:00 PM	Jan-14 05:00 PM	T/ALX										
A11710	INSPECT LUBE OIL RESERVOIR CHECK VALVES	6420243	10.0h	Jan-07-14 01:30 PM	Jan-07-14 01:30 PM	T/ALX										
A8840	CLEAN SEAL OIL SYSTEM CINO FILTERS - CLEAN SEAL OIL SYSTEM CINO FILTERS	6420243	3.0h	Jan-08-14 07:00 AM	Jan-11-14 01:00 AM	T/ALX										
A9000	AUXILIARY HEAT EXCHANGERS - RIG UP TROLLEY & CHAIN FALL	6420243	7.0h	Jan-11-14 10:00 AM	Jan-13-14 09:00 AM	T/ALX										
A9010	AUXILIARY HEAT EXCHANGERS - REMOVE HEADS & OLD ANODES	6420243	30.0h	Jan-13-14 09:00 AM	Jan-16-14 07:30 AM	T/ALX										
A9020	AUXILIARY HEAT EXCHANGERS - CONTRACTOR CLEAN HEAT EXCHANGER (INCLUDING TUBES)	6420243	10.0h	Jan-16-14 07:30 AM	Jan-16-14 05:30 PM	T/ALX										
A9030	AUXILIARY HEAT EXCHANGERS - CONTRACTOR REPAIR COATING AS NEEDED ON HEADS & INSIDE CYLINDER	6420243	5.0h	Jan-17-14 07:00 AM	Jan-17-14 02:00 PM	T/ALX										
A9040	AUXILIARY HEAT EXCHANGERS - INSTALL ANODES (BOTH EXCHANGERS)	6420243	5.0h	Jan-17-14 02:00 PM	Jan-17-14 05:00 PM	T/ALX										
A9050	AUXILIARY HEAT EXCHANGERS - INSTALL HEADS (BOTH EXCHANGERS)	6420243	445.0h	Jan-06-14 12:00 PM	Mar-07-14 05:00 PM	Mar-07-14 05:00 PM										
HAR2-OH-4-OH-6-FS-2 Routing BOP Inspections and Repairs - Fuel		6424137	20.0h	Jan-17-14 05:00 PM	Jan-21-14 06:00 AM	ELC										
A10890	HOT AIR GATE SOLENOIDS - CLEAN HOT AIR GATE SOLENOIDS	642154	10.0h	Jan-21-14 08:00 AM	Jan-22-14 07:30 AM	ELC										
A11470	COAL MILL LOGIC - E00105 - JUMPER LOGIC FOR MILL BALANCE RUNS	6424576	9.0h	Jan-22-14 07:30 AM	Jan-22-14 04:30 PM	ELC										
A12390	COAL FEEDER AND MILL PANELS - CLEAN AND INSPECT	6424092	1.0h	Jan-22-14 04:30 PM	Jan-28-14 02:30 PM	ELC										
A10340	COAL FEEDER MOTORS - CHANGE BRUSHES ON ALL FEEDER MOTORS	6424095	45.0h	Jan-23-14 07:00 AM	Jan-28-14 02:30 PM	ELC										
A10350	COAL MILL VIBRATION SWITCHES - CALIBRATE VIBRATION SWITCHES ON ALL MILLS	6424141	16.0h	Jan-17-14 05:00 PM	Jan-20-14 02:30 PM	BLR										
HAR2-OH-4-OH-6-FS-2-1 Coal Mill Ducts		6424578	16.0h	Jan-17-14 05:00 PM	Jan-20-14 02:30 PM	I&C										
A11360	COAL BUNKER WEIGHING SYSTEM - CALIBRATE OPEN DUCT DOORS	6424141	1.0h	Jan-18-14 07:30 AM	Jan-18-14 08:30 AM	BLR										
A8850	COAL BUNKER DUCTS - INSPECT & CLEAN AS NEEDED	6424135	10.0h	Jan-18-14 08:30 AM	Jan-20-14 10:30 AM	I&C										
A11370	COAL MILL TAPS - CLEAN OUT ALL COAL MILL TAPS															
A10550	COAL MILL TAPS - CLEAN OUT ALL COAL MILL TAPS															

Page 20 of 38

TASK filter: All Activities

© Oracle Corporation

Harrington Station Maintenance Schedules

Harrington Unit 2 OVH HP/IP, LP, Gen		PROJ-S-01 Complete Schedule							Jan-10-14 04:25 PM									
Activity ID	Activity Name	Start	Finish	Remaining Duration			Responsible Crew	January 2014	February 2014	March 2014	06	13	20	27	03	10	17	
A11380	COAL MILL DUCTS - CLOSE DUCT DOORS, AFTER INSPECTION	6/24/14 1	2:00 AM	Jan-20-14 10:30 AM	456.0h	Jan-06-14 12:00 PM	BLR	Feb-27-14 01:00 PM	Feb-27-14 01:00 PM	Feb-27-14 01:00 PM	.	.	.	.	.	.	.
HAR2-OH-4-OH-6-FS-2-2 A - Coal Mill Repairs															Jan-28-14 01:00 PM, HAR2-OH-4-OH-6-F			
A1890	"A" MILL - REMOVE JOURNAL DOORS	6/24/14 1	4:00 PM	Jan-06-14 12:00 PM	4.0h	Jan-06-14 04:00 PM	BLR	Jan-06-14 04:00 PM	BLR	Jan-06-14 04:00 PM	.	.	.	.	.	.	.
A1900	"A" MILL - REMOVE JOURNALS	6/24/14 1	4:00 PM	Jan-06-14 04:00 PM	4.0h	Jan-06-14 04:00 PM	BLR	Jan-07-14 09:30 AM	BLR	Jan-07-14 09:30 AM	.	.	.	.	.	.	.
A1910	"A" MILL - MAKE ALL NECESSARY REPAIRS TO MILL	6/24/14 1	4:00 PM	Jan-07-14 08:30 AM	6424198	90.0h	Jan-17-14 07:30 AM	BLR	Jan-17-14 07:30 AM	BLR	Jan-17-14 07:30 AM	.	.	.	.	.	.	.
A1920	"A" MILL - INSPECT AND REPAIR SWEEP AREA	6/24/14 1	4:00 PM	Jan-17-14 07:30 AM	6424198	45.0h	Jan-17-14 07:30 AM	BLR	Jan-17-14 07:30 AM	BLR	Jan-17-14 07:30 AM	.	.	.	.	.	.	.
A1930	"A" MILL - REPAIR CROSSOVER (WELD OR HUCCO)	6/24/14 1	4:00 PM	Jan-17-14 07:30 AM	6424198	20.0h	Jan-22-14 01:00 PM	BLR	Jan-22-14 01:00 PM	BLR	Jan-22-14 01:00 PM	.	.	.	.	.	.	.
A1940	"A" MILL - SPLIT COUPLINGS, (BOTH ENDS), CHECK COUPLING, CORRECT ALIGNMENT	6/24/14 1	4:00 PM	Jan-17-14 07:30 AM	6424198	8.0h	Jan-24-14 12:00 PM	BLR	Jan-24-14 12:00 PM	BLR	Jan-24-14 12:00 PM	.	.	.	.	.	.	.
A1950	"A" MILL - CLEAN COUPLINGS, REPACK WITH NEW GREASE	6/24/14 1	4:00 PM	Jan-17-14 07:30 AM	6424198	8.0h	Jan-25-14 08:30 AM	BLR	Jan-25-14 08:30 AM	BLR	Jan-25-14 08:30 AM	.	.	.	.	.	.	.
A1960	"A" MILL - RTV INSIDE MILL	6/24/14 1	4:00 PM	Jan-17-14 07:30 AM	6424198	8.0h	Jan-27-14 08:30 AM	BLR	Jan-27-14 08:30 AM	BLR	Jan-27-14 08:30 AM	.	.	.	.	.	.	.
A1970	"A" MILL - INSTALL JOURNAL DOORS	6/24/14 1	4:00 PM	Jan-17-14 07:30 AM	6424198	4.0h	Jan-28-14 07:00 AM	BLR	Jan-28-14 07:00 AM	BLR	Jan-28-14 07:00 AM	.	.	.	.	.	.	.
A1980	"A" MILL - INSTALL JOURNAL DOORS	6/24/14 1	4:00 PM	Jan-17-14 07:30 AM	6424198	2.0h	Jan-28-14 11:00 AM	BLR	Jan-28-14 11:00 AM	BLR	Jan-28-14 11:00 AM	.	.	.	.	.	.	.
HAR2-OH-4-OH-6-FS-2-2 A - Coal Exhauster and Gate Repairs															Feb-9-14 02:00 PM, H-4			
A1980	"A" MILL EXHAUSTER & GATES - REMOVE DOORS TO INSPECT & REPAIR	6/24/14 1	4:00 PM	Jan-28-14 01:00 PM	6424198	189.0h	Jan-28-14 01:00 PM	BLR	Jan-28-14 01:00 PM	BLR	Jan-28-14 01:00 PM	.	.	.	.	.	.	.
A1990	"A" MILL EXHAUSTER & GATES - REPLACE EXHAUSTER DISCHARGE GATE SHAFT IF NEEDED	6/24/14 1	4:00 PM	Jan-28-14 01:00 PM	6424198	30.0h	Jan-28-14 03:00 PM	BLR	Jan-31-14 01:30 PM	BLR	Jan-31-14 01:30 PM	.	.	.	.	.	.	.
A2000	"A" MILL EXHAUSTER & GATES - INSPECT EXHAUSTER-MAKE ALL REPAIRS AS NEEDED	6/24/14 1	4:00 PM	Jan-28-14 01:00 PM	6424198	90.0h	Jan-31-14 01:30 PM	BLR	Jan-31-14 01:30 PM	BLR	Jan-31-14 01:30 PM	.	.	.	.	.	.	.
A2010	"A" MILL EXHAUSTER & GATES - INSPECT HOT AIR GATE-MAKE ALL REPAIRS AS NEEDED	6/24/14 1	4:00 PM	Jan-28-14 01:00 PM	6424198	30.0h	Feb-01-14 02:00 PM	BLR	Feb-01-14 02:00 PM	BLR	Feb-01-14 02:00 PM	.	.	.	.	.	.	.
A2020	"A" MILL EXHAUSTER & GATES - DISASSEMBLE, CLEAN / GREASE / REPAIR ASSEMBLE EXHAUSTER OR MOTOR CPLG	6/24/14 1	4:00 PM	Jan-28-14 01:00 PM	6424198	25.0h	Feb-14-14 12:30 PM	BLR	Feb-14-14 12:30 PM	BLR	Feb-14-14 12:30 PM	.	.	.	.	.	.	.
A2030	"A" MILL EXHAUSTER & GATES - DISASSEMBLE, CLEAN / GREASE / REPAIR ASSEMBLE EXHAUSTER OR MOTOR CPLG	6/24/14 1	4:00 PM	Jan-28-14 01:00 PM	6424198	0.0h	Feb-18-14 08:30 AM	BLR	Feb-18-14 08:30 AM	BLR	Feb-18-14 08:30 AM	.	.	.	.	.	.	.
A2040	"A" MILL EXHAUSTER & GATES - STATIC BALANCE EXHAUSTER	6/24/14 1	4:00 PM	Jan-28-14 01:00 PM	6424198	90.0h	Feb-18-14 08:30 AM	BLR	Feb-18-14 08:30 AM	BLR	Feb-18-14 08:30 AM	.	.	.	.	.	.	.
A2050	"A" MILL EXHAUSTER & GATES - BALANCE EXHAUSTER AFTER ALL REPAIRS ARE MADE	6/24/14 1	4:00 PM	Jan-28-14 01:00 PM	6424198	10.0h	Feb-19-14 08:00 AM	BLR	Feb-19-14 08:00 AM	BLR	Feb-19-14 08:00 AM	.	.	.	.	.	.	.
A2060	"A" MILL EXHAUSTER & GATES - AFTER ALL REPAIRS, INSTALL DOOR TO EXHAUSTER	6/24/14 1	4:00 PM	Jan-28-14 01:00 PM	6424198	6.0h	Feb-19-14 08:00 AM	BLR	Feb-19-14 08:00 AM	BLR	Feb-19-14 08:00 AM	.	.	.	.	.	.	.
HAR2-OH-4-OH-6-FS-2-3 A - Coal Mill Ruffle Distributor															Feb-24-14 02:30 PM			
A2070	"A" MILL RUFFLE DISTRIBUTOR- OPEN INSPECTION COVERS	6/24/14 1	4:00 PM	Jan-28-14 01:00 PM	6424198	10.0h	Feb-20-14 01:30 PM	BLR	Feb-20-14 01:30 PM	BLR	Feb-20-14 01:30 PM	.	.	.	.	.	.	.
A2080	"A" MILL RUFFLE DISTRIBUTOR- INSPECT RUFFLES	6/24/14 1	4:00 PM	Jan-28-14 01:00 PM	6424198	20.0h	Feb-21-14 01:00 PM	BLR	Feb-21-14 01:00 PM	BLR	Feb-21-14 01:00 PM	.	.	.	.	.	.	.
A2090	"A" MILL RUFFLE DISTRIBUTOR - ROTATE & OR REPLACE RUFFLES AS NEEDED	6/24/14 1	4:00 PM	Jan-28-14 01:00 PM	6424198	30.0h	Feb-24-14 02:30 PM	BLR	Feb-24-14 02:30 PM	BLR	Feb-24-14 02:30 PM	.	.	.	.	.	.	.
HAR2-OH-4-OH-6-FS-2-2 A - Coal Feeder Repairs															Feb-27-14 01:00 PM, F-4			
A1000	"A" COAL FEEDER - MAKE ALL REPAIRS AS NEEDED	6/24/14 1	4:00 PM	Jan-28-14 01:00 PM	6424486	4.0h	Feb-19-14 02:00 PM	BLR	Feb-19-14 02:00 PM	BLR	Feb-19-14 02:00 PM	.	.	.	.	.	.	.
HAR2-OH-4-OH-6-FS-2-3 B - Coal Mill Repairs															Jan-25-14 01:00 PM, H-4			
A1680	"B" MILL - REMOVE JOURNAL DOORS	6/24/14 1	4:00 PM	Jan-06-14 12:00 PM	6424272	4.0h	Jan-06-14 12:00 PM	BLR	Jan-06-14 12:00 PM	BLR	Jan-06-14 12:00 PM	.	.	.	.	.	.	.
A1690	"B" MILL - REMOVE JOURNALS	6/24/14 1	4:00 PM	Jan-06-14 12:00 PM	6424272	90.0h	Jan-07-14 08:30 AM	BLR	Jan-17-14 07:30 AM	BLR	Jan-17-14 07:30 AM	.	.	.	.	.	.	.
A1700	"B" MILL - MAKE ALL NECESSARY REPAIRS TO MILL	6/24/14 1	4:00 PM	Jan-07-14 08:30 AM	6424272	45.0h	Jan-17-14 07:30 AM	BLR	Jan-17-14 07:30 AM	BLR	Jan-17-14 07:30 AM	.	.	.	.	.	.	.
A1710	"B" MILL - INSPECT AND REPAIR SWEEP AREA	6/24/14 1	4:00 PM	Jan-07-14 08:30 AM	6424272	20.0h	Jan-22-14 01:00 PM	BLR	Jan-22-14 01:00 PM	BLR	Jan-22-14 01:00 PM	.	.	.	.	.	.	.
A1720	"B" MILL - REPAIR CROSSOVER (WELD OR HUCCO)	6/24/14 1	4:00 PM	Jan-07-14 08:30 AM	6424272	8.0h	Jan-24-14 12:00 PM	BLR	Jan-24-14 12:00 PM	BLR	Jan-24-14 12:00 PM	.	.	.	.	.	.	.
A1730	"B" MILL - SPLIT COUPLINGS, (BOTH ENDS), CHECK COUPLING AND CORRECT ALIGNMENT	6/24/14 1	4:00 PM	Jan-07-14 08:30 AM	6424272	8.0h	Jan-25-14 08:30 AM	BLR	Jan-25-14 08:30 AM	BLR	Jan-25-14 08:30 AM	.	.	.	.	.	.	.
A1740	"B" MILL EXHAUSTER & GATES - REMOVE DOORS TO INSPECT & REPAIR	6/24/14 1	4:00 PM	Jan-07-14 08:30 AM	6424272	8.0h	Jan-27-14 08:30 AM	BLR	Jan-27-14 08:30 AM	BLR	Jan-27-14 08:30 AM	.	.	.	.	.	.	.
A1750	"B" MILL EXHAUSTER & GATES - REPLACE EXHAUSTER DISCHARGE GATE SHAFT IF NEEDED	6/24/14 1	4:00 PM	Jan-07-14 08:30 AM	6424272	8.0h	Jan-27-14 08:30 AM	BLR	Jan-27-14 08:30 AM	BLR	Jan-27-14 08:30 AM	.	.	.	.	.	.	.
A1760	"B" MILL - RTV INSIDE MILL	6/24/14 1	4:00 PM	Jan-07-14 08:30 AM	6424272	4.0h	Jan-28-14 07:00 AM	BLR	Jan-28-14 07:00 AM	BLR	Jan-28-14 07:00 AM	.	.	.	.	.	.	.
A1770	"B" MILL - INSTALL JOURNAL DOORS	6/24/14 1	4:00 PM	Jan-07-14 08:30 AM	6424272	2.0h	Jan-28-14 11:00 AM	BLR	Jan-28-14 11:00 AM	BLR	Jan-28-14 11:00 AM	.	.	.	.	.	.	.
HAR2-OH-4-OH-6-FS-2-3 B - Coal Exhauster and Gate Repairs															Feb-15-14 02:00 PM, H-4			
A1780	"B" MILL EXHAUSTER & GATES - REMOVE DOORS TO INSPECT & REPAIR	6/24/14 1	4:00 PM	Jan-28-14 01:00 PM	6424259	2.0h	Jan-28-14 01:00 PM	BLR	Jan-28-14 01:00 PM	BLR	Jan-28-14 01:00 PM	.	.	.	.	.	.	.
A1790	"B" MILL EXHAUSTER & GATES - REPLACE EXHAUSTER DISCHARGE GATE SHAFT IF NEEDED	6/24/14 1	4:00 PM	Jan-28-14 01:00 PM	6424259	30.0h	Jan-28-14 03:00 PM	BLR	Jan-31-14 01:30 PM	BLR	Jan-31-14 01:30 PM	.	.	.	.	.	.	.
A1800	"B" MILL EXHAUSTER & GATES - INSPECT EXHAUSTER & GATES - MAKE ALL REPAIRS AS NEEDED	6/24/14 1	4:00 PM	Jan-28-14 01:00 PM	6424259	90.0h	Jan-31-14 01:30 PM	BLR	Feb-11-14 02:00 PM	BLR	Feb-11-14 02:00 PM	.	.	.	.	.	.	.
A1810	"B" MILL EXHAUSTER & GATES - DISASSEMBLE, CLEAN / GREASE / REPAIR ASSEMBLE EXHAUSTER OR MOTOR CPLG	6/24/14 1	4:00 PM	Jan-28-14 01:00 PM	6424259	30.0h	Feb-11-14 02:30 PM	BLR	Feb-11-14 02:30 PM	BLR	Feb-11-14 02:30 PM	.	.	.	.	.	.	.
A1820	"B" MILL EXHAUSTER & GATES - DISASSEMBLE, CLEAN / GREASE / REPAIR ASSEMBLE EXHAUSTER OR MOTOR CPLG	6/24/14 1	4:00 PM	Jan-28-14 01:00 PM	6424259	25.0h	Feb-14-14 12:30 PM	BLR	Feb-14-14 12:30 PM	BLR	Feb-14-14 12:30 PM	.	.	.	.	.	.	.

© Oracle Corporation

Page 21 of 38

TASK filter: All Activities



Remaining Work Critical Remaining Work

Harrington Station Maintenance Schedules

Harrington Unit 2 OVH HP/IP, LP, Gen		PROJ-S-01 Complete Schedule										Jan-10-14 04:25 PM									
Activity ID	Activity Name	Start	Duration	Remaining	Finish	Responsible Crew	January 2014	February 2014	March 2014	06	13	20	27	03	10	17	24	03	10	17	
A1830	"B" MILL EXHAUSTER & GATES - STATIC BALANCE EXHAUSTER	6/24/2015 0.0h	Feb-18-14 06:30 AM		Feb-18-14 08:30 AM	BLR															
A1840	"B" MILL EXHAUSTER & GATES - BALANCE EXHAUSTER AFTER ALL REPAIRS ARE MADE	6/24/2015 10.0h	Feb-18-14 08:30 AM		Feb-19-14 08:00 AM	BLR															
A1850	"B" MILL EXHAUSTER & GATES - AFTER ALL REPAIRS, INSTALL DOOR TO EXHAUSTER	6/24/2015 6.0h	Feb-19-14 08:00 AM		Feb-19-14 02:00 PM	BLR															
HAR2-OH-4-OH-6-FS-2-3-3 B - Coal Mill Ruffle Distributor - OPEN INSPECTION COVER																					
A1860	"B" MILL RUFFLE DISTRIBUTOR - OPEN INSPECTION COVER	6/24/2015 10.0h	Feb-19-14 02:00 PM		Feb-19-14 04:23:30 PM	BLR															
A1870	"B" MILL RUFFLE DISTRIBUTOR - INSPECT & ROTATE OR REPAIR RIFFLES AS NEEDED	6/24/2015 10.0h	Feb-19-14 02:00 PM		Feb-20-14 01:30 PM	BLR															
A1880	"B" MILL RUFFLE DISTRIBUTOR - ROTATE & REPAIR RIFFLES	6/24/2015 20.0h	Feb-19-14 02:30 PM		Feb-19-14 04:30 PM	BLR															
HAR2-OH-4-OH-6-FS-2-3-4 B - Coal Feeder Repairs																					
A1010	"B" COAL FEEDER - MAKE ALL REPAIRS AS NEEDED	6/24/2015 30.0h	Feb-19-14 02:30 PM		Feb-21-14 01:00 PM	BLR															
HAR2-OH-4-OH-6-FS-2-4-1 C - Coal Mill Repairs																					
A1470	"C" MILL - REMOVE JOURNALS	6/24/2015 4.0h	Jan-06-14 12:00 PM		Jan-06-14 04:00 PM	BLR															
A1480	"C" MILL - REMOVE JOURNALS	6/24/2015 4.0h	Jan-07-14 04:00 PM		Jan-07-14 09:30 AM	BLR															
A1490	"C" MILL - MAKE ALL NECESSARY REPAIRS TO MILL	6/24/2015 90.0h	Jan-07-14 09:30 AM		Jan-17-14 07:30 AM	BLR															
A1500	"C" MILL - INSPECT AND REPAIR SWEEP AREA	6/24/2015 45.0h	Jan-17-14 07:30 AM		Jan-22-14 01:00 PM	BLR															
A1510	"C" MILL - INSPECT AND REPAIR CROSSOVER (WELD OR HUDDCO)	6/24/2015 20.0h	Jan-22-14 01:00 PM		Jan-22-14 12:00 PM	BLR															
A1520	"C" MILL - SPLIT COUPLINGS (BOTH ENDS); CHECK COUPLING, CORRECT ALIGNMENT	6/24/2015 8.0h	Jan-24-14 02:00 PM		Jan-25-14 09:30 AM	BLR															
A1530	"C" MILL - CLEAN COUPLINGS, REPACK WITH NEW GREASE	6/24/2015 8.0h	Jan-25-14 09:30 AM		Jan-27-14 05:30 AM	BLR															
A1540	"C" MILL - RTV INSIDE MILL	6/24/2015 8.0h	Jan-27-14 09:30 AM		Jan-27-14 05:30 PM	BLR															
A1550	"C" MILL - INSTALL JOURNALS	6/24/2015 4.0h	Jan-28-14 07:00 AM		Jan-28-14 11:00 AM	BLR															
A1560	"C" MILL - INSTALL JOURNALS	6/24/2015 2.0h	Jan-28-14 11:00 AM		Feb-18-14 02:00 PM	BLR															
HAR2-OH-4-OH-6-FS-2-4-2 C - Coal Exhauster and Gate Repairs																					
A1570	"C" MILL EXHAUSTER & GATES - REMOVE DOORS TO INSPECT & REPAIR	6/24/2015 2.0h	Jan-28-14 01:00 PM		Jan-28-14 03:00 PM	BLR															
A1580	"C" MILL EXHAUSTER & GATES - REPLACE EXHAUSTER DISCHARGE GATE SHUTTER IF NEEDED	6/24/2015 30.0h	Jan-28-14 03:00 PM		Jan-31-14 01:30 PM	BLR															
A1590	"C" MILL EXHAUSTER & GATES - INSPECT EXHAUSTER-MAKE ALL REPAIRS AS NEEDED	6/24/2015 90.0h	Jan-31-14 01:30 PM		Feb-11-14 02:00 PM	BLR															
A1600	"C" MILL EXHAUSTER & GATES - INSPECT HOT AIR GATE-MAKE ALL REPAIRS AS NEEDED	6/24/2015 30.0h	Feb-11-14 02:00 PM		Feb-14-14 12:30 PM	BLR															
A1610	"C" MILL EXHAUSTER & GATES - DISASSEMBLE, CLEAN & GREASE /REPAIR, ASSEMBLE EXHAUSTER OR MOTOR CPLG	6/24/2015 0.0h	Feb-14-14 12:30 PM		Feb-18-14 08:30 AM	BLR															
A1620	"C" MILL EXHAUSTER & GATES - STATIC BALANCE EXHAUSTER	6/24/2015 0.0h	Feb-18-14 08:30 AM		Feb-18-14 08:30 AM	BLR															
A1630	"C" MILL EXHAUSTER & GATES - BALANCE EXHAUSTER AFTER ALL REPAIRS ARE MADE	6/24/2015 10.0h	Feb-18-14 08:30 AM		Feb-24-14 02:30 PM	BLR															
A1640	"C" MILL EXHAUSTER & GATES - AFTER ALL REPAIRS, INSTALL DOOR TO EXHAUSTER	6/24/2015 4.0h	Feb-19-14 02:00 PM		Feb-19-14 04:00 PM	BLR															
HAR2-OH-4-OH-6-FS-2-4-3 D - Coal Mill Ruffle Distributor																					
A1650	"C" MILL RUFFLE DISTRIBUTOR - OPEN INSPECTION COVER	6/24/2015 10.0h	Feb-19-14 02:00 PM		Feb-20-14 01:30 PM	BLR															
A1660	"C" MILL RUFFLE DISTRIBUTOR - INSPECT & ROTATE OR REPAIR RIFFLES	6/24/2015 10.0h	Feb-20-14 01:30 PM		Feb-21-14 01:30 PM	BLR															
A1670	"C" MILL RUFFLE DISTRIBUTOR - INSPECT & ROTATE OR REPAIR RIFFLES AS NEEDED	6/24/2015 20.0h	Feb-21-14 01:30 PM		Feb-24-14 02:30 PM	BLR															
A1680	"C" COAL FEEDER - MAKE ALL REPAIRS AS NEEDED	6/24/2015 30.0h	Feb-24-14 02:30 PM		Feb-24-14 04:00 PM	BLR															
HAR2-OH-4-OH-6-FS-2-5-1 D - Coal Mill Repairs																					
A1690	"D" MILL - REMOVE JOURNALS	6/24/2015 4.0h	Jan-06-14 12:00 PM		Jan-06-14 04:00 PM	BLR															
A1700	"D" MILL - REMOVE JOURNALS	6/24/2015 4.0h	Jan-07-14 04:00 PM		Jan-07-14 09:30 AM	BLR															
A1710	"D" MILL - MAKE ALL NECESSARY REPAIRS TO MILL	6/24/2015 90.0h	Jan-07-14 09:30 AM		Jan-22-14 01:00 PM	BLR															
A1720	"D" MILL - INSPECT AND REPAIR SWEEP AREA	6/24/2015 20.0h	Jan-22-14 01:00 PM		Jan-24-14 12:00 PM	BLR															
A1730	"D" MILL - REPAIR CROSSOVER (WELD OR HUDDCO)	6/24/2015 8.0h	Jan-24-14 12:00 PM		Jan-25-14 09:30 AM	BLR															
A1740	"D" MILL - CLEAN COUPLINGS, REPACK WITH NEW GREASE	6/24/2015 8.0h	Jan-25-14 09:30 AM		Jan-27-14 04:30 PM	BLR															
A1750	"D" MILL - RTV INSIDE MILL	6/24/2015 4.0h	Jan-27-14 04:30 PM		Jan-28-14 07:00 AM	BLR															
HAR2-OH-4-OH-6-FS-2-5-2 D - Mill - Install Journals																					
A1760	"D" MILL - INSTALL JOURNALS	6/24/2015 4.0h	Jan-28-14 07:00 AM		Feb-22-14 02:30 PM	BLR															
A1770	"D" MILL - REMOVE JOURNALS	6/24/2015 4.0h	Feb-22-14 02:30 PM		Feb-27-14 01:00 PM	BLR															
A1780	"D" MILL - MAKE ALL NECESSARY REPAIRS TO MILL	6/24/2015 90.0h	Feb-27-14 01:00 PM		Feb-27-14 04:30 PM	BLR															
A1790	"D" MILL - INSPECT AND REPAIR SWEEP AREA	6/24/2015 20.0h	Feb-27-14 04:30 PM		Feb-28-14 01:30 PM	BLR															
A1800	"D" MILL - REPAIR CROSSOVER (WELD OR HUDDCO)	6/24/2015 8.0h	Feb-28-14 01:30 PM		Feb-29-14 09:30 AM	BLR															
A1810	"D" MILL - CLEAN COUPLINGS, REPACK WITH NEW GREASE	6/24/2015 8.0h	Feb-29-14 09:30 AM		Feb-30-14 04:30 PM	BLR															
A1820	"D" MILL - RTV INSIDE MILL	6/24/2015 4.0h	Feb-30-14 04:30 PM		Mar-01-14 07:00 AM	BLR															
HAR2-OH-4-OH-6-FS-2-5-3 D - Coal Mill Repairs																					
A1830	"D" MILL - REMOVE JOURNALS	6/24/2015 4.0h	Mar-01-14 07:00 AM		Mar-02-14 04:00 PM	BLR															
A1840	"D" MILL - MAKE ALL REPAIRS AS NEEDED	6/24/2015 4.0h	Mar-02-14 04:00 PM		Mar-03-14 09:30 AM	BLR															
A1850	"D" MILL - INSPECT AND REPAIR SWEEP AREA	6/24/2015 90.0h	Mar-03-14 09:30 AM		Mar-22-14 01:00 PM	BLR															
A1860	"D" MILL - REPAIR CROSSOVER (WELD OR HUDDCO)	6/24/2015 20.0h	Mar-22-14 01:00 PM		Mar-24-14 12:00 PM	BLR															
A1870	"D" MILL - CLEAN COUPLINGS, REPACK WITH NEW GREASE	6/24/2015 8.0h	Mar-24-14 12:00 PM		Mar-25-14 09:30 AM	BLR															
A1880	"D" MILL - RTV INSIDE MILL	6/24/2015 4.0h	Mar-25-14 09:30 AM		Mar-27-14 04:30 PM	BLR															
HAR2-OH-4-OH-6-FS-2-5-4 D - Coal Feeder Repairs																					
A1890	"D" MILL - REMOVE JOURNALS	6/24/2015 4.0h	Mar-27-14 04:30 PM		Mar-28-14 07:00 AM	BLR															
A1900	"D" MILL - MAKE ALL REPAIRS AS NEEDED	6/24/2015 4.0h	Mar-28-14 07:00 AM		Mar-29-14 04:00 PM	BLR															
A1910	"D" MILL - INSPECT AND REPAIR SWEEP AREA	6/24/2015 90.0h	Mar-29-14 04:00 PM		Mar-2																

Harrington Station Maintenance Schedules

Harrington Unit 2 OVH HP/IP, LP, Gen		PROJ-S-01 Complete Schedule						Jan-10-14 04:25 PM								
Activity ID	Activity Name	Maximo Work Order	Start Duration	Remaining Duration	Finish	Responsible Crew	January 2014	February 2014	March 2014	06	13	20	27	03	10	17
A1350	"D" MILL - INSTALL JOURNAL DOORS	6424410	2.0h Jan-28-14 11:00 AM	189.0h Jan-19-14 01:00 PM	Feb-19-14 02:00 PM	BLR										
HAR2-OH-4-OH-6-FS-2-6-2 D-Coal Exhauster and Gate Repairs														Feb-9-14 02:00 PM - Feb-9-14 02:00 PM		
A1360	"D" MILL EXHAUSTER & GATES - REMOVE DOORS TO INSPECT & REPAIR	6424401	2.0h Jan-28-14 01:00 PM	30.0h Jan-28-14 01:00 PM	Jan-28-14 03:00 PM	BLR										
A1370	"D" MILL EXHAUSTER & GATES - REPLACE EXHAUSTER DISCHARGE GATE SHAFT IF NEEDED	6424401	30.0h Jan-28-14 03:00 PM	90.0h Jan-31-14 01:30 PM	Jan-31-14 01:30 PM	BLR										
A1380	"D" MILL EXHAUSTER & GATES - INSPECT EXHAUSTER-MAKE ALL REPAIRS AS NEEDED	6424401	90.0h Jan-31-14 01:30 PM	30.0h Feb-1-14 02:00 PM	Feb-1-14 02:00 PM	BLR										
A1390	"D" MILL EXHAUSTER & GATES - INSPECT HOT AIR GATE-MAKE ALL REPAIRS AS NEEDED	6424401	30.0h Feb-1-14 02:00 PM	25.0h Feb-1-14 02:30 PM	Feb-1-14 02:30 PM	BLR										
A1400	"D" MILL EXHAUSTER & GATES - DISASSEMBLE, CLEAN / GREASE / REPAIR, ASSEMBLE	6424401	25.0h Feb-1-14 02:30 PM	6.0h Feb-1-14 08:30 AM	Feb-1-14 08:30 AM	BLR										
A1410	"D" MILL EXHAUSTER & GATES - STATIC BALANCE EXHAUSTER	6424401	6.0h Feb-1-14 08:30 AM	10.0h Feb-1-14 08:30 AM	Feb-1-14 08:30 AM	BLR										
A1420	"D" MILL EXHAUSTER & GATES - BALANCE EXHAUSTER AFTER ALL REPAIRS ARE MADE	6424401	10.0h Feb-1-14 08:30 AM	6.0h Feb-1-14 08:00 AM	Feb-1-14 08:00 AM	BLR										
A1430	"D" MILL EXHAUSTER & GATES - AFTER ALL REPAIRS, INSTALL DOOR TO EXHAUSTER	6424401	6.0h Feb-1-14 08:00 AM	4.0h Feb-1-14 02:00 PM	Feb-1-14 02:30 PM	BLR										
HAR2-OH-4-OH-6-FS-2-6-3 D-Coal Mill Riffle Distributor - OPEN INSPECTION COVERS														Feb-24-14 02:30 PM - Feb-24-14 02:30 PM		
A1440	"D" MILL RIFFLE DISTRIBUTOR - OPEN INSPECTION COVERS	6424359	10.0h Feb-19-14 02:00 PM	10.0h Feb-19-14 01:30 PM	Feb-19-14 01:30 PM	BLR										
A1450	"D" MILL RIFFLE DISTRIBUTOR, INSPECT RIFFLES	6424359	10.0h Feb-20-14 01:30 PM	20.0h Feb-21-14 01:00 PM	Feb-21-14 01:30 PM	BLR										
A1460	"D" MILL RIFFLE DISTRIBUTOR - ROTATE & OR REPLACE RIFFLES AS NEEDED	6424359	20.0h Feb-21-14 01:00 PM	30.0h Feb-24-14 02:30 PM	Feb-27-14 01:00 PM	BLR										
A1030	"D" COAL FEEDER, MAKE ALL REPAIRS AS NEEDED	6424529	30.0h Feb-24-14 02:30 PM	30.0h Feb-27-14 01:00 PM	Feb-27-14 01:00 PM	BLR										
HAR2-OH-4-OH-6-FS-2-6 E-Coal Mill Repairs														Feb-27-14 01:00 PM - HAR2-OH-4-OH-6-F		
A1130	"E" MILL - REMOVE JOURNAL DOORS	6424473	4.0h Jan-06-14 12:00 PM	189.0h Jan-06-14 12:00 PM	Jan-06-14 01:00 PM	BLR										
A1140	"E" MILL - REMOVE JOURNAL DOORS	6424473	4.0h Jan-06-14 04:00 PM	4.0h Jan-06-14 04:00 PM	Jan-06-14 04:00 PM	BLR										
A1150	"E" MILL - MAKE ALL NECESSARY REPAIRS TO MILL	6424473	90.0h Jan-07-14 08:30 AM	45.0h Jan-07-14 08:30 AM	Jan-07-14 08:30 AM	BLR										
A1160	"E" MILL - INSPECT AND REPAIR SWEEP AREA	6424473	45.0h Jan-07-14 08:30 AM	45.0h Jan-17-14 07:30 AM	Jan-17-14 07:30 AM	BLR										
A1170	"E" MILL - REPAIR CROSSOVER (WELD OR HUDDCO)	6424473	20.0h Jan-22-14 01:00 PM	20.0h Jan-24-14 12:00 PM	Jan-24-14 12:00 PM	BLR										
A1180	"E" MILL - SPLIT COUPLINGS (BOTH ENDS), CHECK COUPLING, CORRECT ALIGNMENT	6424473	8.0h Jan-24-14 12:00 PM	8.0h Jan-25-14 08:30 AM	Jan-25-14 08:30 AM	BLR										
A1190	"E" MILL - CLEAN COUPLINGS, REPACK WITH NEW GREASE	6424473	8.0h Jan-25-14 08:30 AM	8.0h Jan-27-14 08:30 AM	Jan-27-14 08:30 AM	BLR										
A1200	"E" MILL - RTV INSIDE MILL	6424473	4.0h Jan-28-14 07:00 AM	4.0h Jan-28-14 11:00 AM	Jan-28-14 11:00 AM	BLR										
A1210	"E" MILL - INSTALL JOURNAL DOORS	6424473	2.0h Jan-28-14 11:00 AM	189.0h Jan-28-14 01:00 PM	Feb-18-14 02:00 PM	BLR										
HAR2-OH-4-OH-6-FS-2-6-2 E-Coal Exhauster and Gate Repairs														Feb-19-14 02:00 PM - Feb-19-14 02:00 PM		
A1050	"E" MILL EXHAUSTER & GATES - REMOVE DOORS TO INSPECT & REPAIR	6424464	2.0h Jan-28-14 01:00 PM	30.0h Jan-28-14 03:00 PM	Jan-28-14 03:00 PM	BLR										
A1060	"E" MILL EXHAUSTER & GATES - REPLACE EXHAUSTER DISCHARGE GATE SHAFT IF NEEDED	6424464	30.0h Jan-28-14 03:00 PM	90.0h Jan-31-14 01:30 PM	Jan-31-14 01:30 PM	BLR										
A1070	"E" MILL EXHAUSTER & GATES - INSPECT EXHAUSTER-MAKE ALL REPAIRS AS NEEDED	6424464	90.0h Jan-31-14 01:30 PM	30.0h Feb-1-14 02:00 PM	Feb-1-14 02:00 PM	BLR										
A1080	"E" MILL EXHAUSTER & GATES - INSPECT HOT AIR GATE-MAKE ALL REPAIRS AS NEEDED	6424464	30.0h Feb-1-14 02:00 PM	25.0h Feb-1-14 12:30 PM	Feb-1-14 12:30 PM	BLR										
A1090	"E" MILL EXHAUSTER & GATES - DISASSEMBLE, CLEAN / GREASE / REPAIR, ASSEMBLE	6424464	25.0h Feb-1-14 12:30 PM	0.0h Feb-1-14 12:00 PM	Feb-1-14 12:00 PM	BLR										
A1100	"E" MILL EXHAUSTER & GATES - STATIC BALANCE EXHAUSTER	6424464	0.0h Feb-1-14 12:00 PM	10.0h Feb-18-14 08:30 AM	Feb-18-14 08:30 AM	BLR										
A1110	"E" MILL EXHAUSTER & GATES - BALANCE EXHAUSTER AFTER ALL REPAIRS ARE MADE	6424464	10.0h Feb-18-14 08:30 AM	6.0h Feb-19-14 08:00 AM	Feb-19-14 02:00 PM	BLR										
A1120	"E" MILL EXHAUSTER & GATES - AFTER ALL REPAIRS, INSTALL DOOR TO EXHAUSTER	6424464	6.0h Feb-19-14 08:00 AM	40.0h Feb-19-14 02:00 PM	Feb-24-14 02:30 PM	BLR										
HAR2-OH-4-OH-6-FS-2-6-3 E-Coal Mill Riffle Distributor - OPEN INSPECTION COVERS														Feb-24-14 02:30 PM - Feb-24-14 02:30 PM		
A1230	"E" MILL RIFFLE DISTRIBUTOR - STATIC BALANCE EXHAUSTER	6424422	10.0h Feb-20-14 02:00 PM	10.0h Feb-20-14 01:30 PM	Feb-20-14 01:30 PM	BLR										
A1240	"E" MILL RIFFLE DISTRIBUTOR - INSPECT RIFFLES	6424422	10.0h Feb-20-14 01:30 PM	20.0h Feb-21-14 01:00 PM	Feb-21-14 01:00 PM	BLR										
A1250	"E" MILL RIFFLE DISTRIBUTOR - ROTATE & OR REPLACE RIFFLES AS NEEDED	6424422	20.0h Feb-21-14 01:00 PM	30.0h Feb-24-14 02:30 PM	Feb-27-14 01:00 PM	BLR										
A1040	"E" COAL FEEDER, MAKE ALL REPAIRS AS NEEDED	6424531	30.0h Feb-24-14 02:30 PM	658.0h Jan-24-14 07:00 AM	Mar-07-14 05:00 PM	BLR										
A22480	Construction Removal (Plant)	A22480	312.0h Jan-24-14 07:00 AM	304.0h Feb-13-14 03:00 PM	Mar-05-14 03:00 PM	BLR										
A22480	Construction Installation (Plant)	A22480	42.0h Mar-05-14 03:00 PM	42.0h Mar-07-14 05:00 PM	Mar-07-14 05:00 PM	BLR										
Project Baseline Bar														TASK filter: All Activities		
Actual Work														© Oracle Corporation		