

Pacific Gas and Electric Company
Humboldt Bay Power Plant
Paul J. Roller
Director and Plant Manager Humboldt Bay Nuclear

1000 King Salmon Avenue
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707/444-0700

June 30, 2009

PG&E Letter HBL-09-009



U.S. Nuclear Regulatory Commission
ATTN: Document Control Desk
Washington, D.C. 20555

Docket No. 50-133, OL-DPR-7
Humboldt Bay Power Plant, Unit 3
Post-Shutdown Decommissioning Activities Report, Revision 3

Dear Commissioners and Staff:

Pursuant to 10 CFR 50.82(a)(7), Pacific Gas and Electric Company (PG&E) is submitting the enclosed Revision 3 to the Post-Shutdown Decommissioning Activities Report (PSDAR) for Humboldt Bay Power Plant, Unit 3. PSDAR Revision 3 reflects a change in decommissioning activity status since PSDAR Revision 2 was submitted to the NRC on March 31, 2008. The PSDAR has been revised to (1) provide a detailed schedule of decommissioning activities, (2) reflect the use of NUREG-0586, Supplement 1, "Generic Environmental Impact Statement on Decommissioning of Nuclear Facilities," dated November 2002, that supersedes the original issuance of NUREG-0586 dated August 1988, and (3) discuss a site-specific issue not previously described in the PSDAR, including PG&E's method for ensuring this site-specific issue remains bounded by previously issued environmental impact statements. These changes are pervasive throughout the PSDAR and are, therefore, not identified with revision bars.

In accordance with 10 CFR 50.82(a)(4)(i), the enclosed PSDAR continues to describe planned Unit 3 decommissioning activities and associated schedule, provide an estimate of expected costs, and discuss reasons for concluding that the environmental impacts associated with site-specific decommissioning activities are bounded by appropriate, previously issued, environmental impact statements.

Sincerely,

A handwritten signature in black ink, appearing to read 'P. J. Roller', written over a horizontal line.

Paul J. Roller
Director and Plant Manager Humboldt Bay Nuclear

Enclosure

NKSSO1
FSME

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PG&E Letter HBL-09-009

cc/enc: Gary W. Butner, DHS
Elmo E. Collins, Jr.
Robert Evans
John B. Hickman
Humboldt Distribution

POST-SHUTDOWN DECOMMISSIONING ACTIVITIES REPORT

HUMBOLDT BAY POWER PLANT, UNIT 3

Revision 3

May 2009

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1.0 INTRODUCTION

Pacific Gas and Electric Company (PG&E) submitted the initial Humboldt Bay Power Plant (HBPP), Unit 3, Post-Shutdown Decommissioning Activities Report (PSDAR) to the Nuclear Regulatory Commission (NRC) on February 27, 1998, in accordance with 10 CFR 50.82 (a)(4)(i). PG&E is submitting Revision 3 to the PSDAR in accordance with 10 CFR 50.82 (a)(7) to provide the NRC with a detailed decommissioning activity schedule, to use a more recent NRC guidance document as a reference, and to inform the NRC of a site-specific issue not previously described in the PSDAR.

On December 11, 2008, PG&E completed the transfer of spent fuel from the HBPP Unit 3 spent fuel pool (SFP) into the Humboldt Bay Independent Spent Fuel Storage Installation (ISFSI). As a result, PG&E is ready to begin decontamination and dismantlement of Unit 3. PSDAR Section 3.0 describes planned decommissioning activities, and Attachment A provides a detailed decommissioning schedule.

Previous revisions of the PSDAR discussed reasons for concluding that the environmental impacts associated with site-specific decommissioning activities are bounded by appropriate, previously issued, environmental impact statements; specifically, NUREG-0586, "Final Generic Environmental Impact Statement on Decommissioning of Nuclear Facilities" (FGEIS) (Reference 1) and NUREG-1166, "Final Environmental Statement for Decommissioning Humboldt Bay Power Plant, Unit No. 3" (Reference 2). In November 2002, the FGEIS was superseded by NUREG-0586, Supplement 1, "Generic Environmental Impact Statement on Decommissioning of Nuclear Facilities," (GEIS) (Reference 3). PG&E has reviewed the GEIS and continues to conclude that the environmental impacts associated with site-specific decommissioning activities are bounded by appropriate, previously issued, environmental impact statements.

Revision 3 of the PSDAR addresses the potential environmental impacts of decommissioning activities that are affected by a HBPP site-specific issue not previously described in the PSDAR. This site-specific issue pertains to plant systems contaminated with alpha emitting radionuclides resulting from fuel clad failures that occurred during reactor operation. PG&E will apply the guidance and techniques in the GEIS to ensure that the environmental impacts associated with the site-specific issue remain bounded by the GEIS. Section 5.0 discusses the alpha issue in more detail.

In accordance with 10 CFR 50.82 (a)(4)(i), this PSDAR describes the planned decommissioning activities and associated schedule for Unit 3, and provides an estimate of expected costs.

2.0 BACKGROUND

Unit 3 was operated by PG&E as a 65 MWe natural circulation boiling water reactor (BWR). In addition to Unit 3, two oil and/or natural gas fueled units, Units 1 and 2, exist on the plant site and continue to be operated by PG&E. Unit 1 is rated at 52 MWe, and Unit 2 is rated at 53 MWe. Two diesel-fueled gas turbine Mobile Emergency Power Plants, each rated at 15 MWe, are also currently located at the plant and are operated by PG&E.

Unit 3 was granted a construction permit by the Atomic Energy Commission (AEC) on October 17, 1960, and construction began in November 1960. The AEC issued Provisional Operating License No. DPR-7 for Unit 3 in August 1962. Unit 3 achieved initial criticality on February 16, 1963, and began commercial operation in August 1963.

On July 2, 1976, PG&E shutdown Unit 3 for an annual refueling and to conduct seismic studies and implement seismic modifications. Unit 3 remained in a shutdown condition pending completion of ongoing seismic and geologic studies. In December 1980, it became apparent to PG&E that the cost of completing required backfits would likely make it uneconomical to restart the unit. Work was suspended at that time awaiting further guidance regarding backfitting requirements. In 1983, updated economic analyses confirmed that restarting Unit 3 would not be economical. Therefore, in June 1983, PG&E announced its intention to decommission Unit 3.

The NRC issued License Amendment 19 for Unit 3 on July 16, 1985, that modified the plant status to a possess-but-not-operate status. The NRC's Decommissioning Safety Evaluation Report was issued on April 29, 1987 (Reference 4). The Unit 3 License expires in 2015.

During the 13 years of Unit 3 commercial operation, 11 core cycles of operation were completed. Unit 3 operated a total of 7.85 effective full power years. The fuel was removed from the reactor in January and February 1984, and placed in the SFP. The spent nuclear fuel was transferred to the Humboldt Bay ISFSI in 2008 and will remain stored in the ISFSI until a high-level waste repository has been built, and the Department of Energy assumes control of the fuel. The ISFSI license, issued by the NRC on November 17, 2005, expires in 2025.

3.0 DESCRIPTION AND SCHEDULE OF PLANNED DECOMMISSIONING ACTIVITIES

Several major inter-related activities are either currently ongoing or planned for the near future at the HBPP site.

- Unit 3 decommissioning has started.
- Units 1 and 2 will be replaced by a new generation facility, called the Humboldt Bay Generating Station (HBGS), currently under construction.
- Units 1 and 2 will be decommissioned after HBGS begins commercial operation.
- Unit 3 decommissioning will be completed following completion of Units 1 and 2 decommissioning.

Coordinating and scheduling these activities requires a great deal of planning, and the sequence is dependent upon successful completion of HBGS construction and operation, as well as successful decommissioning of Units 1 and 2.

Because spent fuel has been removed from the Unit 3 SFP and loaded into the ISFSI, decommissioning of Unit 3 has begun. Attachment A provides a schedule of planned decommissioning activities. This schedule incorporates cost and schedule assumptions for planned activities that are reflected in the latest decommissioning cost estimate (Reference 5). Studies for some of these activities are continuing, and, therefore, the schedule and methods identified in Attachment A may change. For example, the reactor vessel is assumed to be segmented; however, studies may show that disposing the vessel in one piece is feasible and advantageous. PG&E will continue to inform the NRC of significant schedule changes.

As shown on the Attachment A schedule, PG&E started decommissioning Unit 3 in May 2009 by dismantling the main transformers, to be followed by decontaminating and dismantling the generator, turbine, condenser, pipe tunnel, and feed pump room that will provide space for future radwaste processing. PG&E plans to construct the HBGS during 2009 and 2010, and commence operation in mid-2010. Once the HBGS begins commercial operation, PG&E plans to dismantle and decommission Units 1 and 2. (Units 1 and 2 must remain operational until HBGS begins commercial operation to provide continued electrical services to the local area.) After Units 1 and 2 are decommissioned, the space previously occupied by Units 1 and 2 can be used as a lay-down area for the completion of Unit 3 decommissioning.

The schedule depicted in Attachment A is contingent upon HBGS beginning commercial operation in 2010. If construction and operation of HBGS is significantly delayed, PG&E may adjust the dismantlement priorities and schedule. PG&E will inform the NRC of significant schedule changes.

4.0 ESTIMATE OF EXPECTED DECOMMISSIONING COSTS

PG&E submits annual decommissioning funding assurance reports to the NRC in accordance with the requirements of 10 CFR 50.75(f). Updates to decommissioning cost estimates and decommissioning trust fund balances are documented in these reports, the latest of which was submitted on March 31, 2009 (Reference 6).

The March 31, 2009 Decommissioning Funding Report for HBPP Unit 3 stated that at the end of calendar year 2008, the market value of the HBPP Unit 3 decommissioning trust funds was \$331.1 million. PG&E estimated an additional \$35.745 million (future nominal dollars) will need to be collected beginning in 2007 to coincide with decommissioning of HBPP Unit 3 beginning in 2009 based on a site-specific decommissioning cost estimate prepared by TLG Services, Inc. and adjusted per the Nuclear Decommissioning Cost Triennial Proceeding (NDCTP) Decision 07-01-003 from the California Public Utilities Commission (CPUC).

The March 31, 2009 Decommissioning Funding Report for HBPP Unit 3 further stated that, based on the site-specific cost estimate prepared by TLG Services, Inc. and adjustments as a result of the NDCTP Decision 07-01-003, PG&E has estimated that the decommissioning costs are approximately \$395.5 million (\$37.1 million disbursed from the Trust(s) through December 2008 and \$358.4 million future radiological removal costs) for HBPP Unit 3 in 2009 dollars. These costs do not include site restoration of the facilities (\$6.5 million), nor spent fuel management until 2015 (\$83.8 million).

On April 3, 2009, PG&E submitted to the CPUC an updated the site-specific cost estimate for HBPP Unit 3. PG&E will provide an update of the 2009 site-specific decommissioning cost estimate to the NRC in a future Decommissioning Funding Report when approved by the CPUC. Revised information pertaining to estimated decommissioning costs and the status of the trust fund will be documented in future Decommissioning Funding Reports sent to the NRC annually in accordance with 10 CFR 50.75(f).

5.0 ENVIRONMENTAL IMPACTS

10 CFR 50.82 (a)(4)(i) requires the PSDAR to include, "a discussion that provides the reasons for concluding that the environmental impacts associated with site-specific decommissioning activities will be bounded by appropriate previously issued environmental impact statements." PG&E originally assessed the environmental impact of Unit 3 decommissioning in the Unit 3 Environmental Report, dated July 30, 1984 (Reference 7). The NRC response to the Environmental Report is documented in NUREG-1166, dated April 1987.

Later, PG&E assessed the environmental impact of Unit 3 decommissioning based on NUREG-0586, "Final Generic Environmental Impact Statement on Decommissioning of Nuclear Facilities" (FGEIS) dated August 1988. More recently, the NRC evaluated the environmental impacts of decommissioning nuclear facilities, including HBPP, in NUREG-0586, GEIS, Supplement 1, dated November 2002. The Supplement updates information from the 1988 FGEIS regarding technological advances in decommissioning activities and changes in NRC regulations. The environmental impacts described in the Supplement supersede those described in the 1988 FGEIS. As a result, PG&E has re-assessed the environmental impact of Unit 3 decommissioning based on NUREG-0586, Supplement 1.

The occupational dose for complete decommissioning of Unit 3, following 23 years of SAFSTOR, considers: (1) occupational dose received from placing Unit 3 in SAFSTOR and maintaining Unit 3 in SAFSTOR through 2008, (2) dose from all occupational activities required for the actual decommissioning of Unit 3 through 2015, and (3) occupational dose due to truck shipments. The occupational dose for Unit 3 decommissioning will meet the regulatory standards in 10 CFR 20 and is, therefore, bounded by the criteria in the GEIS.

Public dose from decommissioning Unit 3, following 23 years of SAFSTOR, considers direct exposure and gaseous and liquid effluents. Direct exposure and effluents in gaseous and liquid discharges are not expected to exceed the design objectives of 10 CFR 50, Appendix I, nor the dose and effluent concentration limits in 10 CFR 20 and 40 CFR 190. Therefore, the public dose from Unit 3 decommissioning is bounded by the criteria in the GEIS.

At the time that HBPP Unit 3 entered commercial service in 1963, the nuclear fuel assemblies utilized stainless steel as the fuel rod cladding. The stainless steel-clad fuel experienced gross cladding failures during operation. These failures were severe enough that radioactive fuel was released from the cladding and dispersed throughout numerous plant systems, contaminating these systems with alpha emitting radionuclides, i.e., transuranic elements.

HBPP completed the transition from stainless steel to zircaloy assemblies in 1969.

Over the SAFSTOR period, as beta and gamma emitting radionuclides have decayed, alpha has become a more dominant factor in dose contribution. Because alpha causes more severe biological damage when internal exposure occurs, the potential radiological dose consequences are likewise more severe. This issue leads to a unique, plant-specific concern that exists for HBPP decommissioning and is not discussed in the GEIS.

The alpha issue was not discussed in previous revisions of the PSDAR. However, it was described in two previous PG&E decommissioning funding assurance report submittals to the NRC: (1) PG&E Letter HBL-03-002, dated March 27, 2003, Enclosure 5 (Reference 8), and (2) PG&E Letter HBL-07-002, dated March 30, 2007, Enclosure 3 (Reference 9). These enclosures contain cost studies developed by TLG Services, Inc. and state "The extent of the alpha contamination will require additional radiological controls and will reduce the efficiency of component removal activities." HBPP will implement appropriate best management practices and mitigating measures so that the alpha issue will not invalidate NRC expectations nor the conclusions on radiological environmental impacts contained in the GEIS.

Based on the above discussions, PG&E continues to conclude that Unit 3 decommissioning will be accomplished with no significant adverse environmental impacts, and because:

- By implementing appropriate best management practices and mitigating measures to minimize the impacts of decommissioning activities, there are no unique aspects of the plant or decommissioning techniques that would invalidate or alter the conclusions of the GEIS.
- Delaying the dismantlement of Unit 3 following 23 years of SAFSTOR has resulted in considerable radioactivity decay with resultant reduced external dose rates and lower occupational deep dose equivalent exposure.
- Public and occupational doses are bounded by the GEIS criteria.
- Radiation dose to the public will be minimal.
- Decommissioning does not constitute an imminent health or safety problem and will generally have a positive environmental impact.

6.0 REFERENCES

1. NUREG-0586, "Final Generic Environmental Impact Statement on Decommissioning of Nuclear Facilities," dated August 1988.
2. NUREG-1166, "Final Environmental Statement for Decommissioning Humboldt Bay Power Plant, Unit No. 3," dated April 1987.
3. NUREG-0586, "Generic Environmental Impact Statement on Decommissioning of Nuclear Facilities," Supplement 1, dated November 2002.
4. NRC Safety Evaluation Report, Humboldt Bay Power Plant, Unit No. 3 Decommissioning, dated April 29, 1987.
5. TLG Services, Inc. Document P01-1604-002, Rev. 0, "Decommissioning Cost Study Report for the Humboldt Bay Power Plant, Unit 3, 2010 SAFSTOR," dated March, 2009.
6. PG&E Letter HBL-09-004, "Decommissioning Funding Report for Humboldt Bay Power Plant Unit 3," submitted to the NRC, dated March 31, 2009.
7. Environmental Report, Attachment 6 to PG&E's application to decommission HBPP, dated July 30, 1984.
8. PG&E Letter HBL-03-002, "Decommissioning Funding Reports for Diablo Canyon Power Plants Units 1 and 2 and Humboldt Bay Power Plant Unit 3," submitted to the NRC, dated March 27, 2003.
9. PG&E Letter HBL-07-002, , "Decommissioning Funding Report for Humboldt Bay Power Plant Unit 3," submitted to the NRC, dated March 30, 2007.

ATTACHMENT A

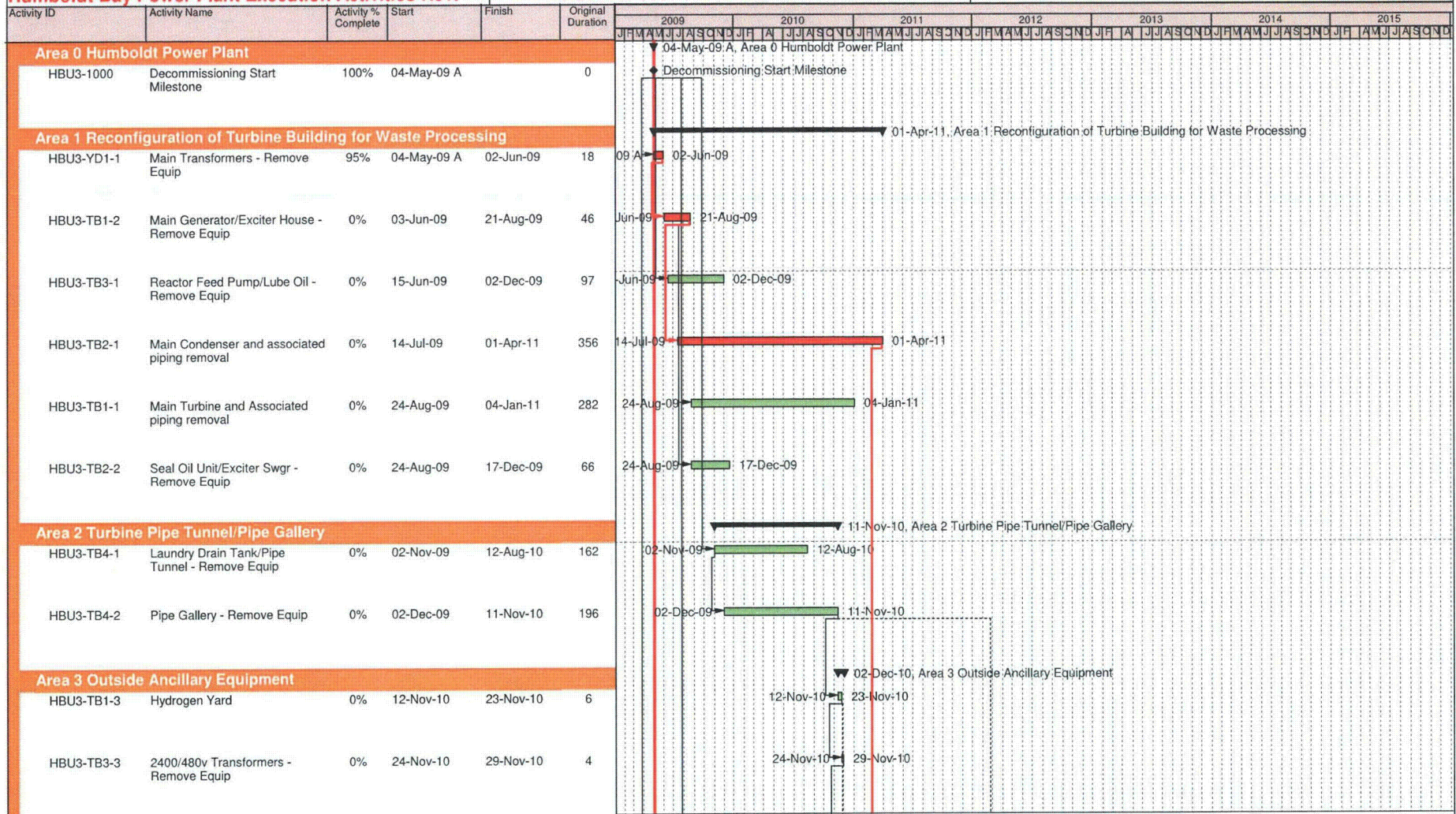
HUMBOLDT BAY POWER PLANT UNIT 3

DECOMMISSIONING SCHEDULE

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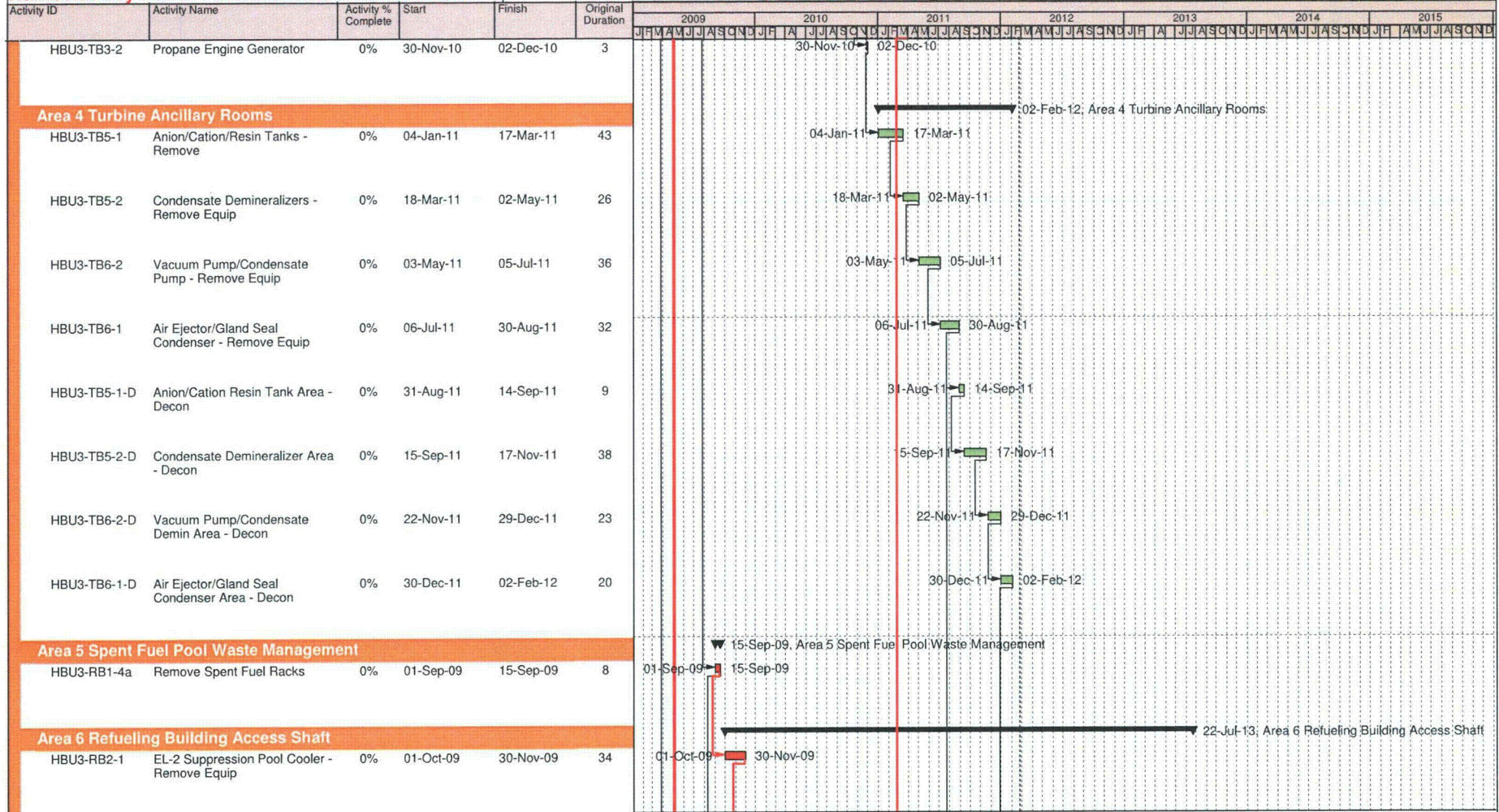


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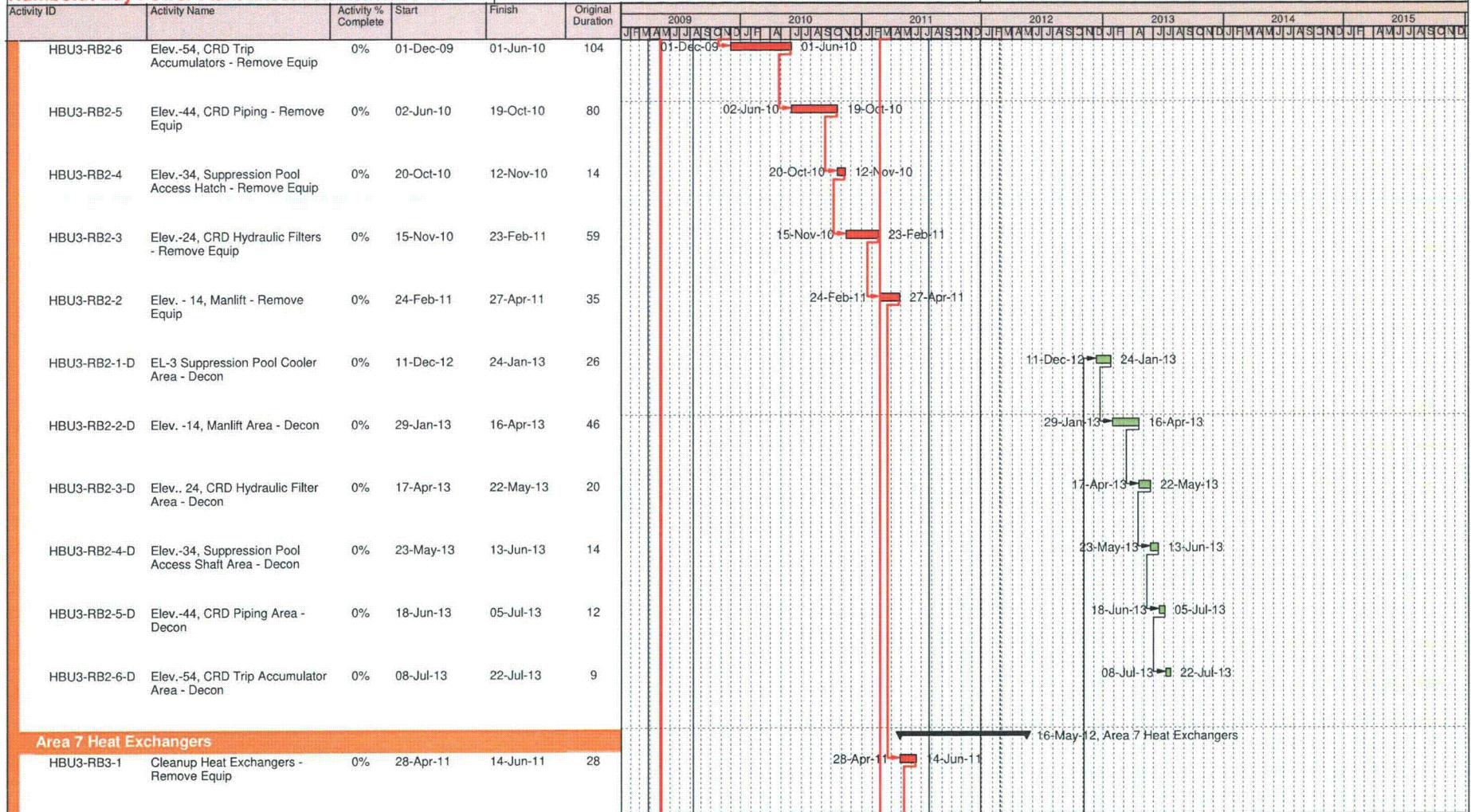


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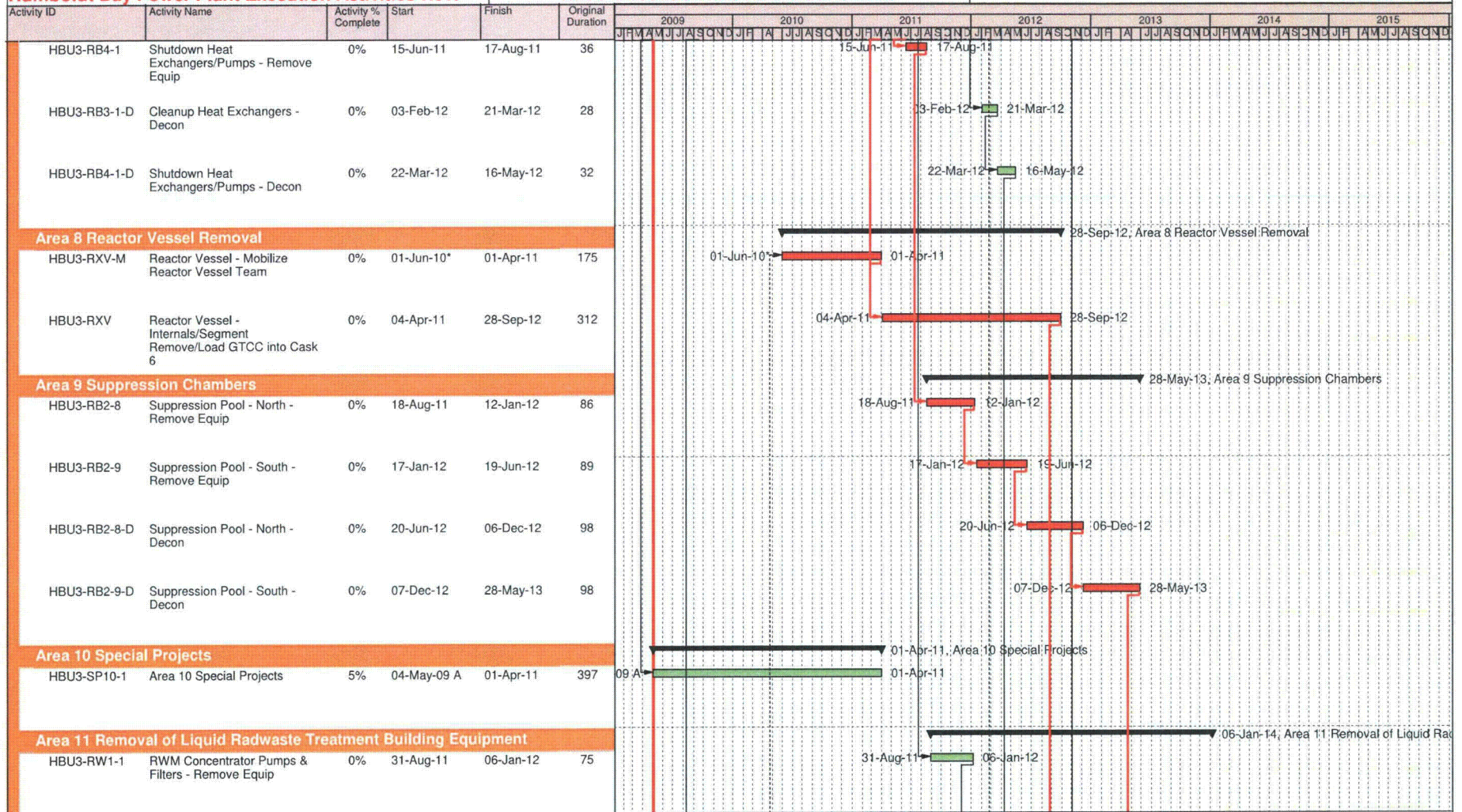


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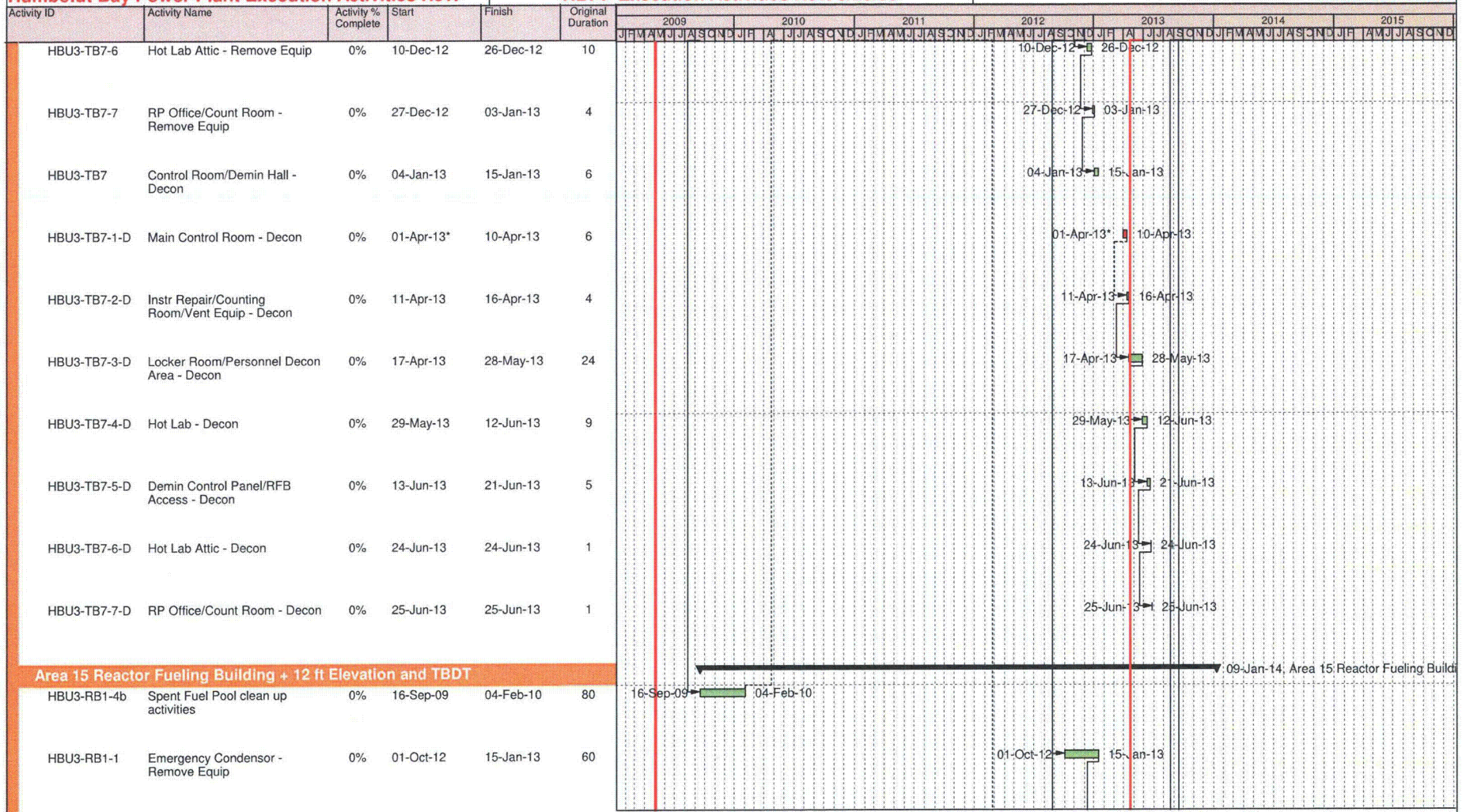
Activity ID	Activity Name	Activity % Complete	Start	Finish	Original Duration	Gantt Chart (2009-2015)																																																			
						2009	2010	2011	2012	2013	2014	2015																																													
HBU3-YD2-4-D	Condensate/Demin Water Storage Tank - Decon	0%	22-Oct-13	24-Oct-13	2	[Gantt bar from 22-Oct-13 to 24-Oct-13]																																																			
HBU3-UC1230	LLRW processing equipment	0%	01-Jan-14*	06-Jan-14	4	[Gantt bar from 01-Jan-14 to 06-Jan-14]																																																			
Area 12 Casson Sump																																																									
HBU3-RB2-7	Elev.-66, Casson Sump, REDT - Remove Equip	0%	17-May-12	15-Oct-12	86	[Gantt bar from 17-May-12 to 15-Oct-12]																																																			
HBU3-RB2-7-D	Elev.-66, Casson Sump Area - Decon	0%	16-Oct-12	10-Dec-12	32	[Gantt bar from 16-Oct-12 to 10-Dec-12]																																																			
Area 13 Reactor Vessel Cavity																																																									
HBU3-RB1-6	Reactor Vessel Cavity & Concrete - Remove Equip	0%	01-Oct-12*	05-Feb-13	73	[Gantt bar from 01-Oct-12 to 05-Feb-13]																																																			
HBU3-RB1-6-D	Reactor Vessel Cavity - Decon	0%	06-Feb-13	06-Feb-13	1	[Gantt bar from 06-Feb-13 to 06-Feb-13]																																																			
Area 14 Control Room and Nearby Support Rooms																																																									
HBU3-TB7-1	Main Control Room - Remove Equip	0%	10-Oct-12*	08-Nov-12	18	[Gantt bar from 10-Oct-12 to 08-Nov-12]																																																			
HBU3-TB7-5	Demin Control Panel/RFB Access - Remove Equip	0%	09-Nov-12	21-Nov-12	7	[Gantt bar from 09-Nov-12 to 21-Nov-12]																																																			
HBU3-TB7-2	Instr Repair/Counting Room/Vent Equip - Remove Equip	0%	23-Nov-12	27-Nov-12	3	[Gantt bar from 23-Nov-12 to 27-Nov-12]																																																			
HBU3-TB7-3	Locker Room/Personnel Decon Area - Remove Equip	0%	28-Nov-12	03-Dec-12	3	[Gantt bar from 28-Nov-12 to 03-Dec-12]																																																			
HBU3-TB7-4	Hot Lab - Remove Equip	0%	04-Dec-12	07-Dec-12	4	[Gantt bar from 04-Dec-12 to 07-Dec-12]																																																			

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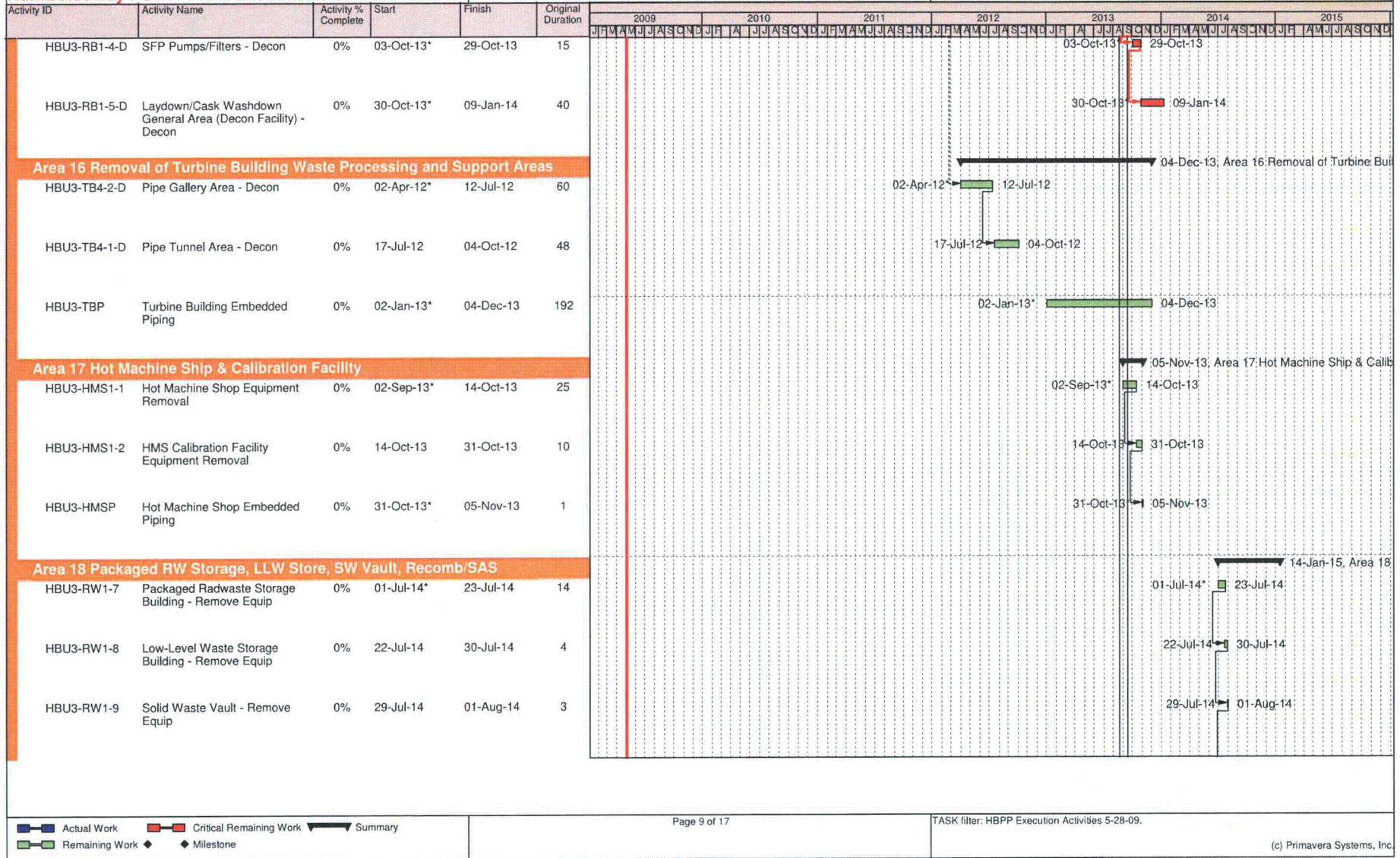
Activity ID	Activity Name	Activity % Complete	Start	Finish	Original Duration	Gantt Chart (2009-2015)																																																																							
HBU3-RB1-4	SFP Pumps/Filters - Remove Equip	0%	01-Oct-12	27-Nov-12	33	[Gantt bar: 01-Oct-12 to 27-Nov-12]																																																																							
HBU3-RB1-2	Spent Fuel Pool - Remove Equip	0%	16-Jan-13	30-Jan-13	9	[Gantt bar: 16-Jan-13 to 30-Jan-13]																																																																							
HBU3-RB1-5	Laydown/Cask Washdown General Area (Decon Facility) - Remove Equip	0%	31-Jan-13	02-Apr-13	36	[Gantt bar: 31-Jan-13 to 02-Apr-13]																																																																							
HBU3-RBP	Refuel Building Embedded Piping	0%	01-Apr-13*	22-May-13	30	[Gantt bar: 01-Apr-13 to 22-May-13]																																																																							
HBU3-RB1-3	Cask Shipping Area - Remove Equip	0%	02-Apr-13	12-Apr-13	6	[Gantt bar: 02-Apr-13 to 12-Apr-13]																																																																							
HBU3-RB3-2	New Fuel Storage/Fuel Pool Coolers - Remove Equip	0%	12-Apr-13	02-May-13	12	[Gantt bar: 12-Apr-13 to 02-May-13]																																																																							
HBU3-RB4-2	TBDT/Floor Drain Pumps - Remove Equip	0%	02-May-13	11-Jun-13	22	[Gantt bar: 02-May-13 to 11-Jun-13]																																																																							
HBU3-RB1	RFB + 12 Decon	0%	22-May-13	14-Aug-13	49	[Gantt bar: 22-May-13 to 14-Aug-13]																																																																							
HBU3-RB1-1-D	Emergency Condenser - Decon	0%	29-May-13	20-Jun-13	13	[Gantt bar: 29-May-13 to 20-Jun-13]																																																																							
HBU3-RB3-2-D	New Fuel Storage/Fuel Pool Coolers - Decon	0%	04-Jun-13*	20-Jun-13	11	[Gantt bar: 04-Jun-13 to 20-Jun-13]																																																																							
HBU3-RB1-2-D	Spent Fuel Pool - Decon	0%	21-Jun-13	21-Aug-13	36	[Gantt bar: 21-Jun-13 to 21-Aug-13]																																																																							
HBU3-RB4-2-D	TBDT/Floor Drain Pumps - Decon	0%	21-Jun-13	23-Jul-13	19	[Gantt bar: 21-Jun-13 to 23-Jul-13]																																																																							
HBU3-RB1-3-D	Cask Shipping Area - Decon	0%	22-Aug-13	02-Oct-13	24	[Gantt bar: 22-Aug-13 to 02-Oct-13]																																																																							

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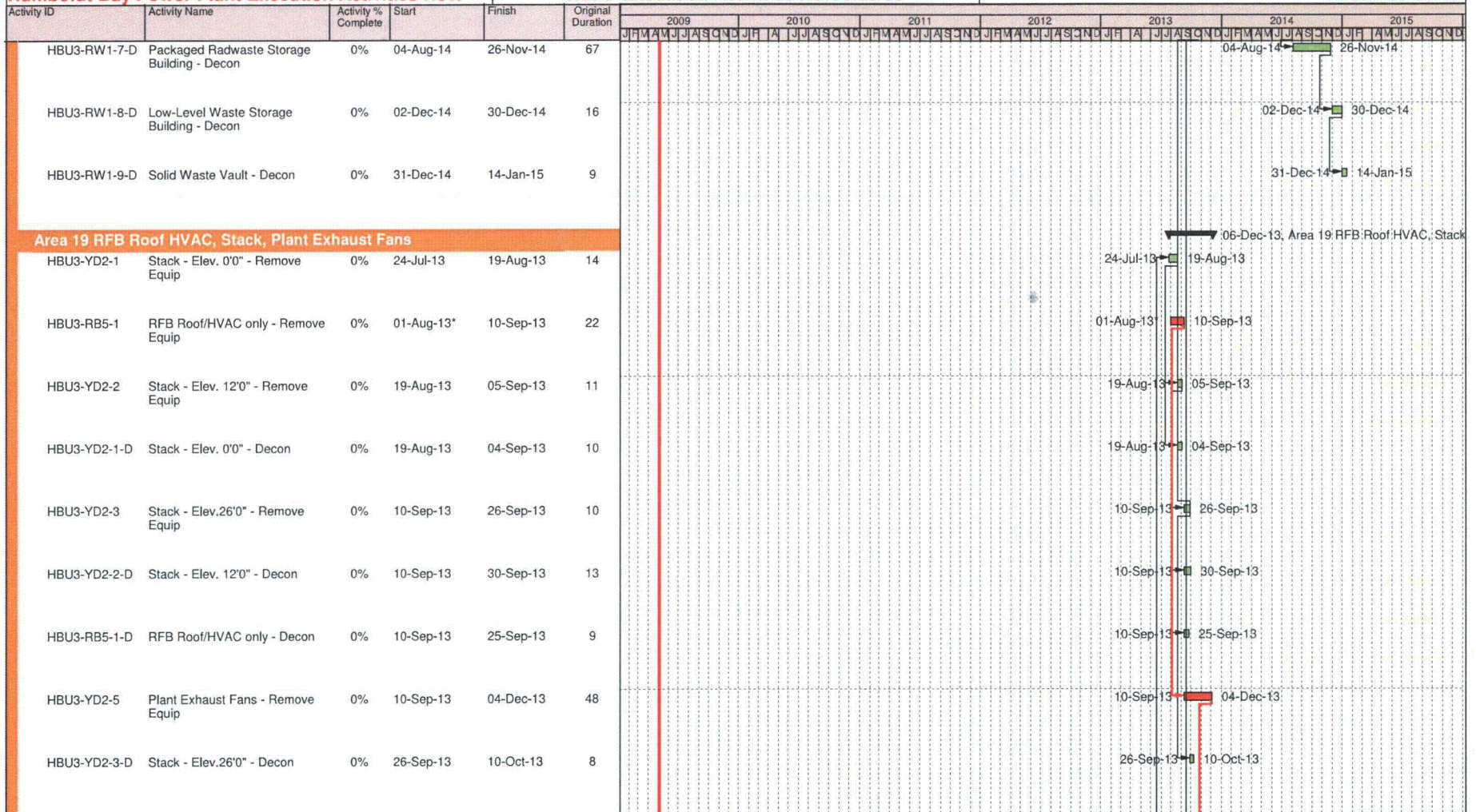
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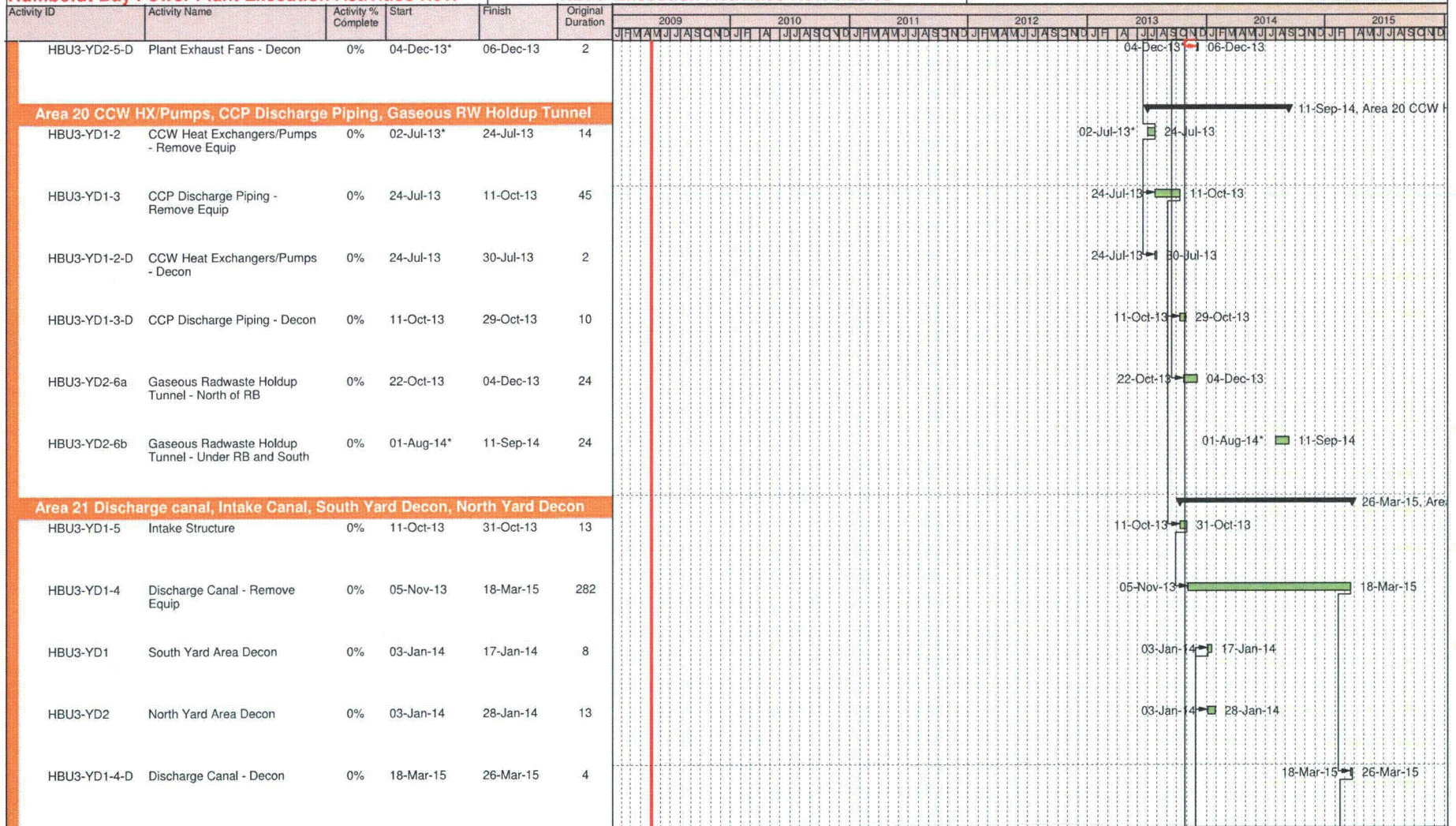
06-Dec-13, Area 19,RFB:Roof:HVAC, Stack

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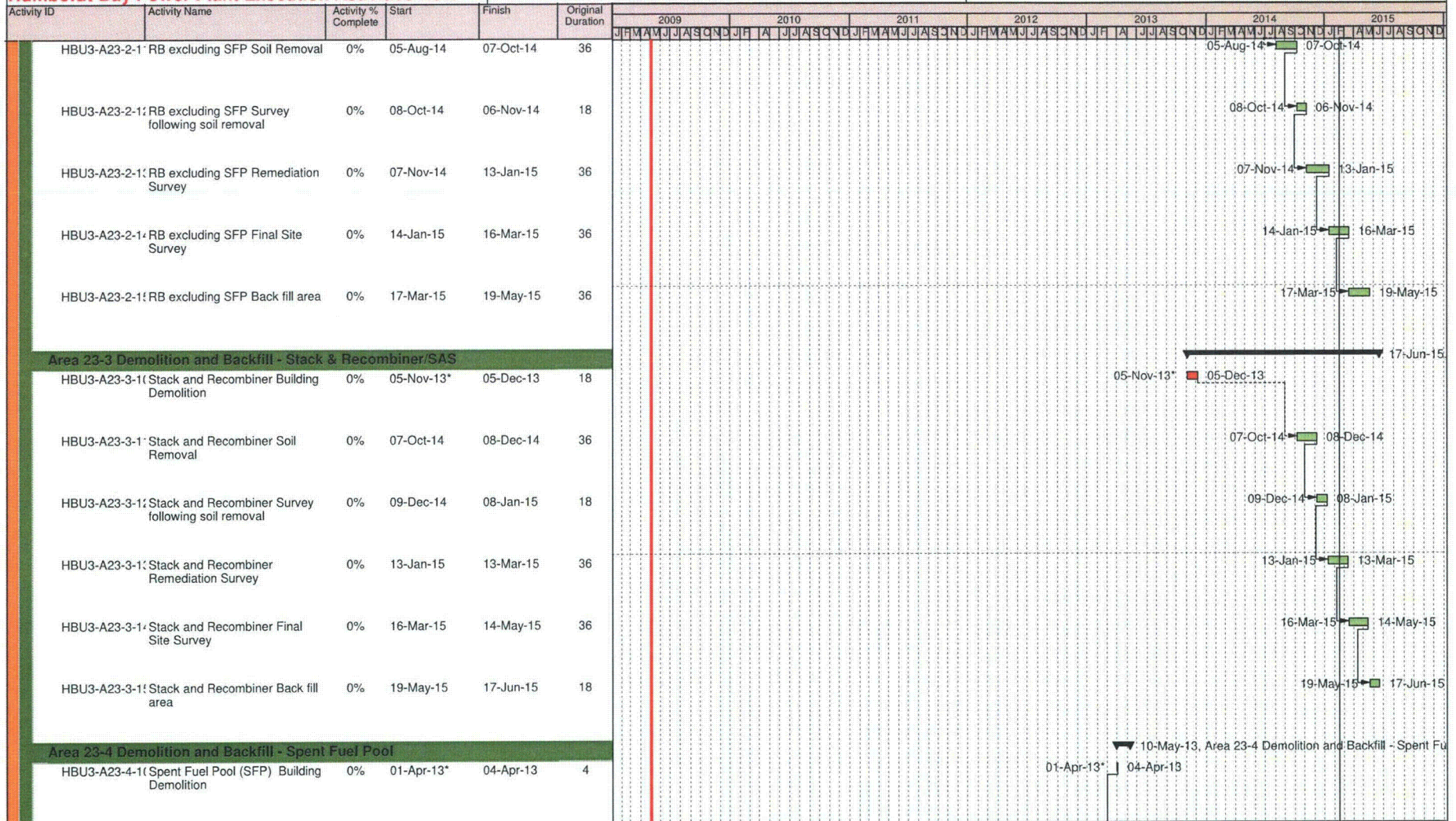
Activity ID	Activity Name	Activity % Complete	Start	Finish	Original Duration	Gantt Chart (2009-2015)																							
Area 22 Yard Embed Pipe, Drains & Catch Basins, Contaminated Soil Removal																													
HBU3-YDD	Drains and Catch Basin Installations	0%	15-Apr-11*	08-Jul-11	48	15-Apr-11* [Red Bar] 08-Jul-11																							
HBU3-YDS	Contaminated Soil Removal	0%	15-Apr-11*	31-Jul-12	270	15-Apr-11* [Red Bar] 31-Jul-12																							
HBU3-YDP	Yard Embedded Piping	0%	03-Dec-13*	06-Jan-14	19	03-Dec-13* [Green Bar] 06-Jan-14																							
HBU3-YDPa	Circ Water Discharge Pipe (after HMS Bldg removal)	0%	02-Jan-14*	28-Jan-14	14	02-Jan-14* [Green Bar] 28-Jan-14																							
Area 23 Demolition and Backfill of Structures																													
Area 23-1 Demolition and Backfill - Turbine Building																													
HBU3-A23-1-1	TB Building Demolition	0%	03-Dec-13*	05-Mar-14	54	03-Dec-13* [Red Bar] 05-Mar-14																							
HBU3-A23-1-1	TB Soil Removal	0%	06-Mar-14	08-May-14	36	06-Mar-14 [Green Bar] 08-May-14																							
HBU3-A23-1-1	TB Survey following soil removal	0%	09-May-14	09-Jun-14	18	09-May-14 [Green Bar] 09-Jun-14																							
HBU3-A23-1-1	TB Remediation Survey	0%	10-Jun-14	12-Aug-14	36	10-Jun-14 [Green Bar] 12-Aug-14																							
HBU3-A23-1-1	TB Final Site Survey	0%	13-Aug-14	13-Oct-14	36	13-Aug-14 [Green Bar] 13-Oct-14																							
HBU3-A23-1-1	TB Back fill area	0%	14-Oct-14	12-Nov-14	18	14-Oct-14 [Green Bar] 12-Nov-14																							
Area 23-2 Demolition and Backfill - Refueling Building (not incl SFP)																													
HBU3-A23-2-1	RB excluding SFP Building Demolition	0%	01-May-14*	04-Aug-14	54	01-May-14* [Red Bar] 04-Aug-14																							

■ Actual Work
 ■ Critical Remaining Work
 ▼ Summary
■ Remaining Work
 ◆ Milestone

Humboldt Bay Power Plant Execution Activities Rev.

HBPP Execution Activities Rev. 5/28/09

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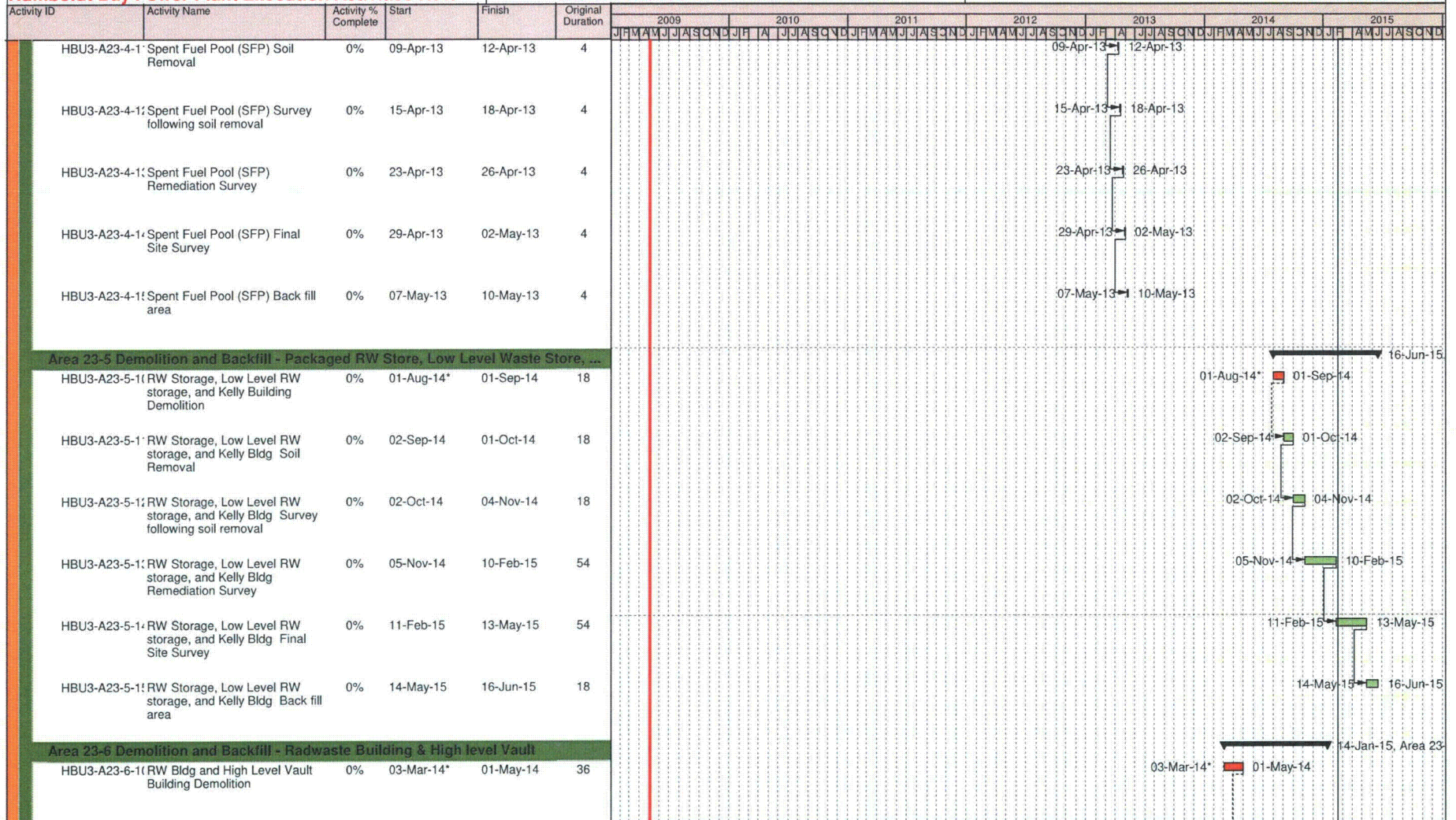


■ Actual Work
 ■ Critical Remaining Work
 ▼ Summary
 Remaining Work
 ◆ Milestone

Humboldt Bay Power Plant Execution Activities Rev.

HBPP Execution Activities Rev. 5/28/09

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



■ Actual Work
 ■ Critical Remaining Work
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■ Remaining Work
 ◆ Milestone

Humboldt Bay Power Plant Execution Activities Rev.

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Activity ID	Activity Name	Activity % Complete	Start	Finish	Original Duration	2009				2010				2011				2012				2013				2014				2015			
						J	F	M	A	M	J	J	A	M	M	J	A	M	M	J	A	M	M	J	A	M	M	J	A	M	M	J	A
Area 25 Final Status Survey & Regulatory Closure						▼:06-Jan-14, Area 25:Final:Status:Survey:&																											
HBU3-LT1010	Submit Termination Survey Report	0%	01-Jan-14*	06-Jan-14	4	01-Jan-14* 06-Jan-14																											
Area 26 Site Restoration						▼:06-Jan-14, Area 26:Site Restoration																											
HBU3-SCA-1000	Backfill Site	0%	01-Jan-14*	06-Jan-14	4	01-Jan-14* 06-Jan-14																											
HBU3-SCA-1010	Grade and Landscape Site	0%	01-Jan-14*	06-Jan-14	4	01-Jan-14* 06-Jan-14																											
Area 27 Waste Shipping						▼:06-Jan-14, Area 27:Waste:Shipping:																											
HBU3-UC1180	Disposal of DAW generated	0%	01-Jan-14*	06-Jan-14	4	01-Jan-14* 06-Jan-14																											
Area 28 Training & misc charge account for non-physical work						▼:06-Jan-14, Area 28:Training & misc charge																											
HBU3-A28-1000	Training for the masses	0%	01-Jan-14*	06-Jan-14	4	01-Jan-14* 06-Jan-14																											
Fossil Units 1 & 2						▼ 01-Apr-11, Fossil Units 1 & 2 ◆ Fossil Units Shutdown/New Gen Complete ◆ Fossil Units 1&2 Abatement ◆ Fossil Units 1&2:Tanks and Structures (demolish)																											
HBU3-FU1-1	Fossil Units Shutdown/New Gen Complete	0%	01-Sep-10*		0																												
HBU3-FU1-2	Fossil Units 1&2 Abatement	0%	01-Sep-10*		0																												
HBU3-FU1-3	Fossil Units 1&2 Tanks and Structures (demolish)	0%	01-Apr-11*		0																												
Site Restoration						▼ 02-Jun-15* 																											
HBU3-StRes - 1000	Site Restoration	0%	02-Jun-15*	04-Jan-16	124																												
License Termination Plan						▼ 02-Jun-15* 																											
HBU3-LT-1000	NRC Termination of License	0%	02-Jun-15*	04-Jan-16	124																												

 Actual Work
  Critical Remaining Work
  Summary
 Remaining Work
 ◆ Milestone