

RAC V TECHNICAL STATUS REPORT

December 29, 2001 to January 25, 2002

WORK ASSIGNMENT NUMBER: 101-RALR-05WE

SITE NAME: Penta Wood Products-OU 1, WI

ACTIVITY: Long-Term Response Action

CH2M HILL JOB NUMBER: 159815

PREPARED BY: Regina Bayer, Site Manager
Bill Andrae, Assistant Site Manager

PERIOD ENDING: January 25, 2002

COPIES: WAM: Tony Rutter, USEPA, Region 5
PM: Isaac H. Johnson, CH2M HILL, Milwaukee, WI
RTL: Phil Smith, CH2M HILL, Milwaukee, WI
WDNR: Bill Schultz, WDNR, Rhinelander, WI
WDNR: Dave Hantz, WDNR, Madison, WI
WDNR: Pete Prusak, WDNR, Cumberland, WI

1. Progress Made This Reporting Period

On January 7, CH2M HILL received WAF Revision No. 10 from the USEPA approving WPRR No. 1, providing funding, and increasing the expenditure LOE/budget. Preparations to conduct the jar tests and pilot tests began upon receipt of the WAF. Field instructions for the project team were prepared. A pilot test schedule was mailed to the USEPA and WDNR.

On January 8, one 55-gal drum of spent bag filters and 24 Supersacks of spent clay and carbon were removed from the site by the waste removal contractor, Onyx.

On January 16, the vessels in the groundwater treatment plant were filled with clean water from a clean tanker truck from the local dairy cooperative. A water sample was collected to verify the water quality. The vessels had all been emptied of water earlier in the winter to prevent freezing while the plant was not in operation.

On January 21, the plant was turned on and allowed to run for one hour before representative samples were collected and shipped to the CH2M HILL Milwaukee warehouse for the jar tests. A series of bench-scale jar tests were performed the week of January 21 to confirm the demulsification chemistry for the DAF pilot test to be performed as the next step at the site. The chemistries evaluated with the jar tests consisted of:

- Coagulants – ferrous sulfate and sodium aluminate
- Flocculent – high charge anionic polymer

- Acidification – sulfuric acid

Various concentrations of the coagulants and flocculent were added to a 10 percent oil/water separator effluent and 90 percent extracted groundwater mixture to identify the optimal dosage for oil and grease removal. Acid demulsification was evaluated at different pH levels to assess its effectiveness as a treatment option. Results will be evaluated by both visual observation of separation, and analytical results for oil and grease, total organic carbon, total suspended solids, and PCP.

No analytical samples were collected from the acid demulsification jar tests because no visual separation of the oil and grease from the water was observed during the jar tests as the pH was lowered with sulfuric acid.

Summary of Project Status						
Task No./ Code	Planned Start	Actual Start	Planned Completion	Actual Completion	Percent Complete	Schedule Variance
1-PP	09/30/00	09/30/00	9/29/03		55	
3-DU	09/30/00	09/30/00	9/29/03		98	
4-PB	09/30/00	09/30/00	9/29/03		75	
7-CV	09/30/00	09/30/00	9/29/03		60	
8-AI	09/30/00	09/30/00	9/29/03		36	
9-PJ	09/30/00	09/30/00	9/29/03		45	
11-CO	08/01/03		9/29/03		0	

2 Problems Resolved

None.

3. Problem Areas and Recommended Solutions

None.

Change Order Status			
Change orders submitted by CH2M HILL to USEPA			
CO#1	WRS Infrastructure & Environment, Inc. – final quantity adjustments	\$169,909.90	Approved
CO#2	WRS Infrastructure & Environment, Inc. – erosion repair and maintenance	\$205,693.92	Approved
		Total	\$375,603.82

4. Deliverables Submitted

None.

5. Activities Planned Next Reporting Period

The DAF pilot test unit is scheduled to be brought on site and set up the week of February 18.

6. Key Personnel Changes

None.

7. Subcontractor Services

Earthworks:	WRS Infrastructure & Environmental Inc.
Drilling:	Davidson Environmental
Bioventing/Groundwater Treatment:	Dakota Intertek Corp.
OWS Bypass:	Carbonair
Haz Waste Disposal:	Onyx

8. Travel

None.

9. Laboratories

PDC Laboratory will provide analytical services for the jar tests and pilot tests. They are a Wisconsin-certified laboratory.

10. Project Performance

CH2M HILL obtained chemicals for the jar tests at no cost from a prospective vendor. The jar tests were conducted in a back room of the Milwaukee warehouse, saving the cost of laboratory rental fees if a local laboratory had been used. The resulting waste from the jar tests is being stored in lidded buckets in the warehouse for subsequent transfer back to the site with the next scheduled site trip.

RAC V TECHNICAL STATUS REPORT

January 26, 2002 to February 22, 2002

WORK ASSIGNMENT NUMBER: 101-RALR-05WE

SITE NAME: Penta Wood Products-OU 1, WI

ACTIVITY: Long-Term Response Action

CH2M HILL JOB NUMBER: 159815

PREPARED BY: Regina Bayer, Site Manager
Bill Andrae, Assistant Site Manager

PERIOD ENDING: February 22, 2002

COPIES: WAM: Tony Rutter, USEPA, Region 5
PM: Isaac H. Johnson, CH2M HILL, Milwaukee, WI
RTL: Phil Smith, CH2M HILL, Milwaukee, WI
WDNR: Bill Schultz, WDNR, Rhinelander, WI
WDNR: Dave Hantz, WDNR, Madison, WI
WDNR: Pete Prusak, WDNR, Cumberland, WI

1. Progress Made This Reporting Period

During this reporting period, the pilot test field instructions were completed and the pilot test began. Based on the analytical results received from the jar test performed during the prior reporting period, ferrous sulfate was chosen as the coagulant for the pilot test. The jar tests also indicated a high charge anionic polymer would work well.

On February 17, Inan Beydilli/senior process engineer mobilized to the site. The vendor supplying the Dissolved Air Flotation (DAF) pilot plant also mobilized a representative to the site. The truck with the rental DAF pilot test unit was supposed to arrive early Monday morning on February 18. However, the truck experienced scheduling delays and problems with customs at the Canadian/U.S. border, and did not arrive until Wednesday, February 20. On February 21, Keli McKenna/process engineer, mobilized to the site. By February 22, the pilot plant was assembled and plumbed into the existing treatment plant system, and the team was working on adjusting the chemical feeds to optimize the floc generation and oil removal.

Summary of Project Status						
Task No./ Code	Planned Start	Actual Start	Planned Completion	Actual Completion	Percent Complete	Schedule Variance
1-PP	09/30/00	09/30/00	9/29/03		58	
3-DU	09/30/00	09/30/00	9/29/03		98	
4-PB	09/30/00	09/30/00	9/29/03		78	
7-CV	09/30/00	09/30/00	9/29/03		60	
8-AI	09/30/00	09/30/00	9/29/03		36	
9-PJ	09/30/00	09/30/00	9/29/03		50	
11-CO	08/01/03		9/29/03		0	

2 Problems Resolved

None.

3. Problem Areas and Recommended Solutions

None.

Change Order Status			
Change orders submitted by CH2M HILL to USEPA			
CO#1	WRS Infrastructure & Environment, Inc. – final quantity adjustments	\$169,909.90	Approved
CO#2	WRS Infrastructure & Environment, Inc. – erosion repair and maintenance	\$205,693.92	Approved
		Total	\$375,603.82

4. Deliverables Submitted

None.

5. Activities Planned Next Reporting Period

The first phase of the DAF pilot testing will be completed.

6. Key Personnel Changes

None.

7. Subcontractor Services

Earthworks:	WRS Infrastructure & Environment, Inc.
Drilling:	Davidson Environmental
Bioventing/Groundwater Treatment:	Dakota Intertek Corp.
OWS Bypass:	Carbonair
Haz Waste Disposal:	Onyx

8. Travel

On February 17, Inan Beydilli traveled to the site from Chicago by car. On February 21, Keli McKenna traveled to the site from Milwaukee by plane. Travel charges will be invoiced during the next reporting period.

9. Laboratories

PDC Laboratory will provide analytical services for the jar tests and pilot tests. They are a Wisconsin-certified laboratory.

10. Project Performance

Labor and expense costs for Inan Beydilli's time spent onsite waiting for the DAF unit to arrive will be deducted from the vendor's invoice for the rental of the unit.

RAC V TECHNICAL STATUS REPORT

February 23, 2002 to March 29, 2002

WORK ASSIGNMENT NUMBER: 101-RALR-05WE
SITE NAME: Penta Wood Products-OU 1, WI
ACTIVITY: Long-Term Response Action
CH2M HILL JOB NUMBER: 159815
PREPARED BY: Regina Bayer, Site Manager
Bill Andrae, Assistant Site Manager
PERIOD ENDING: March 29, 2002
COPIES: WAM: Tony Rutter, USEPA, Region 5
PM: Isaac H. Johnson, CH2M HILL, Milwaukee, WI
RTL: Phil Smith, CH2M HILL, Milwaukee, WI
WDNR: Bill Schultz, WDNR, Rhinelander, WI
WDNR: Dave Hantz, WDNR, Madison, WI
WDNR: Pete Prusak, WDNR, Cumberland, WI

1. Progress Made This Reporting Period

As reported in last month's TSR, the pilot plant was assembled and plumbed into the existing treatment plant system on February 22, and the team was working on adjusting the chemical feeds to optimize the floc generation and oil removal. The team, which included a representative from the pilot test unit vendor, was not able to get the DAF stable with the first waste stream they attempted, which was a 90 percent groundwater and 10 percent oil /water separator effluent mix. They switched the waste stream to 100 percent groundwater, and were able to "dial in" the DAF to optimum, stable operation. The team collected 3 days of data in this configuration. A cationic polymer was tried, and it worked far better than the anionic polymer originally chosen from the jar tests.

On March 1, the waste stream was configured back to 90 percent groundwater and 10 percent oil/water separator effluent mix, and a stable configuration was achieved. Data was collected for 1/2 day, but then the plumbing lines and chemical feed tanks froze up due to cold weather, causing the system to become inoperable. The pilot test effort has been hampered because the pilot test unit does not have a lid, and odors from the surface are so offensive that the garage door and service doors are kept open during the testing. When the weather is extremely cold, the plant's heaters cannot keep the building above freezing. When the pilot unit could not be readily restarted in the 0 degree weather, the first part of the test was ended. An attempt was made from March 18-21 to continue the pilot test. The DAF was cleaned out, the chemicals were mixed, and the DAF was dialed in again, but temperatures became too cold on March 21, and the attempt was terminated until warmer weather arrived.

CH2M HILL also continued to receive validated data from the USEPA and to incorporate qualifiers into the database during this reporting period. Work began to convert existing data into the Region 5 EDD format.

Summary of Project Status						
Task No./ Code	Planned Start	Actual Start	Planned Completion	Actual Completion	Percent Complete	Schedule Variance
1-PP	09/30/00	09/30/00	9/29/03		62	
3-DU	09/30/00	09/30/00	9/29/03		93	
4-PB	09/30/00	09/30/00	9/29/03		78	
7-CV	09/30/00	09/30/00	9/29/03		60	
8-AI	09/30/00	09/30/00	9/29/03		36	
9-PJ	09/30/00	09/30/00	9/29/03		57	
11-CO	08/01/03		9/29/03		0	

2 Problems Resolved

None.

3. Problem Areas and Recommended Solutions

The pilot test effort has been hampered because the pilot test unit does not have a lid, and odors from the surface are highly offensive, so the garage and service doors have been kept open during the testing. When the weather is extremely cold, the plant's heaters can not keep building temperatures above freezing. Health and Safety Plan action levels have not been triggered, but the field team has taken various safety precautions. They have worn respirators; covered the unit with a plastic cover and ventilated the emissions to the outside with a ventilator and hose; mobilized specific monitors such as sulfur dioxide draeger tubes; used mist and dust monitors; and have collected wipe and float samples.

The treatment plant operator has experienced an adverse reaction to some constituent in the plant. An investigation is ongoing to pinpoint the chemical that is causing the reaction.

Change Order Status			
Change orders submitted by CH2M HILL to USEPA			
CO#1	WRS Infrastructure & Environment, Inc. – final quantity adjustments	\$169,909.90	Approved
CO#2	WRS Infrastructure & Environment, Inc. – erosion repair and maintenance	\$205,693.92	Approved
Total		\$375,603.82	

4. Deliverables Submitted

None.

5. Activities Planned Next Reporting Period

The DAF pilot testing will be completed.

6. Key Personnel Changes

None.

7. Subcontractor Services

Earthworks:	WRS Infrastructure & Environment, Inc.
Drilling:	Davidson Environmental
Bioventing/Groundwater Treatment:	Dakota Intertek Corp.
OWS Bypass:	Carbonair
Haz Waste Disposal:	Onyx

8. Travel

On March 1, Inan Beydilli traveled from the site to Chicago by air. Keli McKenna returned to Milwaukee on March 4 by car after spending the weekend at her own expense in Minneapolis. On March 17, Keli McKenna and Inan Beydilli traveled to the site by car, and returned on March 21.

9. Laboratories

PDC Laboratory will provide analytical services for the jar tests and pilot tests. They are a Wisconsin-certified laboratory.

10. Project Performance

The field team responded to the limitations of the pilot unit and adverse working conditions with engineering controls, but was unable to overcome the working conditions. Progress to date has been slow and frustrating, but several design needs have been taken from the experience.

RAC V TECHNICAL STATUS REPORT

March 30, 2002 to April 26, 2002

WORK ASSIGNMENT NUMBER: 101-RALR-05WE
SITE NAME: Penta Wood Products-OU 1, WI
ACTIVITY: Long-Term Response Action
CH2M HILL JOB NUMBER: 159815
PREPARED BY: Regina Bayer, Site Manager
Bill Andrae, Assistant Site Manager
PERIOD ENDING: April 26, 2002
COPIES: WAM: Tony Rutter, USEPA, Region 5
PM: Isaac H. Johnson, CH2M HILL, Milwaukee, WI
RTL: Phil Smith, CH2M HILL, Milwaukee, WI
WDNR: Bill Schultz, WDNR, Rhinelander, WI
WDNR: Dave Hantz, WDNR, Madison, WI - 266-1198
WDNR: Pete Prusak, WDNR, Cumberland, WI - 715-822-5421

1. Progress Made This Reporting Period

Tom - Ken - 715 839 1604

On April 4, Onyx picked up drums of waste material from the first round of the pilot test for disposal. On April 10, the DAF pilot test was restarted for the final time. The DAF and oil/water separator (COW) were cleaned out, and the DAF was dialed in and running smoothly by April 11 in the 90 percent groundwater/10 percent COW mix waste stream. The DAF effluent was run through three pilot-sized carbon vessels, and samples were collected between vessels to look at PCP breakthrough. The pilot test was completed on April 16, and the unit was cleaned, dismantled, and shipped offsite on April 17.

Snowmelt and spring rains created a minor washout on the east side of the CAMU, and the top riser of a monitoring well snapped at a joint under the weight of the procover as the washout removed soil from around the well. The well was repaired with a sleeve-type device used in repairing drinking water lines. Preliminary repairs were made on the washout until stone and a clay fill material could be obtained.

Summary of Project Status						
Task No./ Code	Planned Start	Actual Start	Planned Completion	Actual Completion	Percent Complete	Schedule Variance
1-PP	09/30/00	09/30/00	9/29/03		62	
3-DU	09/30/00	09/30/00	9/29/03		93	
4-PB	09/30/00	09/30/00	9/29/03		78	
7-CV	09/30/00	09/30/00	9/29/03		60	
8-AI	09/30/00	09/30/00	9/29/03		36	
9-PJ	09/30/00	09/30/00	9/29/03		57	
11-CO	08/01/03		9/29/03		0	

2 Problems Resolved

None.

3. Problem Areas and Recommended Solutions

Emissions generated during the pilot test created health and safety concerns. Data was collected to analyze the problem, and to assist in conducting a hazardous operations review during the design of a full-scale system. The treatment plant building will be decontaminated.

Change Order Status			
Change orders submitted by CH2M HILL to USEPA			
CO#1	WRS Infrastructure & Environment, Inc. – final quantity adjustments	\$169,909.90	Approved
CO#2	WRS Infrastructure & Environment, Inc. – erosion repair and maintenance	\$205,693.92	Approved
Total		\$375,603.82	

4. Deliverables Submitted

None.

5. Activities Planned Next Reporting Period

The building will be decontaminated, ongoing erosion repairs will be made, and groundwater/residential well sampling will be conducted. Results from the pilot test will be presented at the site on May 15.

6. Key Personnel Changes

None.

7. Subcontractor Services

Earthworks:	WRS Infrastructure & Environment, Inc.
Drilling:	Davidson Environmental
Bioventing/Groundwater Treatment:	Dakota Intertek Corp.
OWS Bypass:	Carbonair
Haz Waste Disposal:	Onyx

8. Travel

Mary Gausman Wicklund traveled from the site to Cambridge, MN on February 22 to pick up a chemical for the DAF pilot test.

Travel for Keli McKenna on March 17-22 was reported in last month’s Technical Status Report.

On April 10, Inan Beydilli traveled from the site to Chicago by car, and returned to Chicago on April 16. Travel charges will be invoiced during the next reporting period.

Keli McKenna traveled to the site from Milwaukee on April 10, and returned home on April 17.

9. Laboratories

PDC Laboratory will provide analytical services for the jar tests and pilot tests. They are a Wisconsin-certified laboratory.

10. Project Performance

The field team completed the field test despite adverse working conditions. The damaged monitoring well was repaired with minimal cost.

RAC V TECHNICAL STATUS REPORT

April 27, 2002 to May 31, 2002

WORK ASSIGNMENT NUMBER: 101-RALR-05WE
SITE NAME: Penta Wood Products-OU 1, WI
ACTIVITY: Long-Term Response Action
CH2M HILL JOB NUMBER: 159815
PREPARED BY: Regina Bayer, Site Manager
Bill Andrae, Assistant Site Manager
PERIOD ENDING: May 31, 2002
COPIES: WAM: Tony Rutter, USEPA, Region 5
PM: Isaac H. Johnson, CH2M HILL, Milwaukee, WI
RTL: Phil Smith, CH2M HILL, Milwaukee, WI
WDNR: Bill Schultz, WDNR, Rhinelander, WI
WDNR: Dave Hantz, WDNR, Madison, WI
WDNR: Pete Prusak, WDNR, Cumberland, WI

1. Progress Made This Reporting Period

During this reporting period, CH2M HILL received, tabulated, and evaluated analytical results from the DAF and mini-carbon vessel pilot test. The project team developed recommendations for the treatment plant based on the results, and presented the results of the pilot test and the recommended option for the plant to the WAM and WDNR in Siren on May 15.

The pilot test results showed the oil emulsion can be chemically broken and successfully removed from the liquid waste streams using a DAF unit. The clean carbon study indicated that the low effluent PCP criteria, which is the Wisconsin Preventive Action Limit (PAL), is close to the detection capabilities for PCP. Variability in analytical results at this low level make meeting a 0.1 µg/L PCP effluent criteria technically infeasible.

For example, DAF effluent was run through an organoclay vessel, followed by three carbon vessels connected in series. Eighteen PCP samples were collected between each unit (between DAF and organoclay vessel; between organoclay vessel and carbon#1; between carbon#1 and carbon#2; between carbon#2 and carbon#3; and after carbon#3) over a 2-day period. In the PCP samples collected after carbon#1, 56 percent of the samples were non-detect. After carbon#2, 89 percent of the samples were non-detect. However, after carbon #3, the percentage of non-detects dropped to 67 percent. It is not likely that the wastestream picked up more PCP between carbon vessels. All of the detected PCP concentrations in the carbon study were statistically well below the Wisconsin PCP Enforcement Standard of 1.0 µg/L. During the presentation meeting, the WDNR was asked to reconsider the 0.1 µg/L PCP end-of-pipe

effluent discharge standard. A discharge standard of 1.0 µg/L PCP was proposed, based on the following rationale:

- The analytical variability at concentrations around the 0.1 µg/L criteria for PCP is significant.
- Effluent water discharged into the infiltration basin migrates through 100 feet of sand before reaching the water table.
- Historical groundwater monitoring data demonstrates that natural attenuation is degrading the dissolved phase PCP at the site.

The WDNR was also asked if a pH effluent limit of 5.0 would be acceptable, as the current draft NPDES permit does not contain a set numerical value.

During the same trip to the site for the pilot test results presentation, the project team including the design manager, held a meeting with the plant operator to assess the existing plant operations. Semi-annual groundwater sampling was also conducted. Water levels were monitored from all site monitoring wells, and six monitoring wells and four residential wells were sampled between May 13-14.

The SM, WAM, and plant operator met with the local earthwork contractor to discuss ongoing site erosion and maintenance work to be conducted. The deep-rooted grasses planted in the fall of 2000 are emerging, and erosion this spring was relatively minor. A punch list of maintenance activities was created, including emptying sedimentation basins, placing rock in the ditches along the driveway/access road, placing more fill at the site entrance driveway, reseeding bare spots, and more.

Following the pilot test data presentation to the Agencies, approval was given to start the design modifications to the existing treatment plant to incorporate a DAF pretreatment unit. The data collected during the pilot test was used to conduct a mass balance; to determine the appropriate float management device, chemical mixing methods, and equalization tanks; and to begin equipment sizing, among other activities.

The DAF pilot test presentation and a draft design, bidding, and construction start schedule were e-mailed to the WAM and Bill Schultz/WDNR.

Summary of Project Status						
Task No./ Code	Planned Start	Actual Start	Planned Completion	Actual Completion	Percent Complete	Schedule Variance
1-PP	09/30/00	09/30/00	9/29/03		68	
3-DU	09/30/00	09/30/00	9/29/03		94	
4-PB	09/30/00	09/30/00	9/29/03		81	
7-CV	09/30/00	09/30/00	9/29/03		60	
8-AI	09/30/00	09/30/00	9/29/03		40	
9-PJ	09/30/00	09/30/00	9/29/03		68	
11-CO	08/01/03		9/29/03		0	

2 Problems Resolved

The treatment building was successfully decontaminated; personnel are no longer experiencing adverse health symptoms in the building.

3. Problem Areas and Recommended Solutions

None.

Change Order Status			
Change orders submitted by CH2M HILL to USEPA			
CO#1	WRS Infrastructure & Environment, Inc. – final quantity adjustments	\$169,909.90	Approved
CO#2	WRS Infrastructure & Environment, Inc. – erosion repair and maintenance	\$205,693.92	Approved
Total		\$375,603.82	

4. Deliverables Submitted

The DAF pilot test results were presented in a meeting, and a copy of the presentation was submitted to the Agencies. Additional documentation of the pilot test will be included as an appendix to the preliminary design submittal. A draft schedule was submitted to the Agencies outlining the proposed project delivery strategy.

5. Activities Planned Next Reporting Period

The preliminary design package is anticipated to be submitted. CH2M HILL is working to schedule a tour of an operating DAF unit for the WAM at one of CH2M HILL's industrial clients.

6. Key Personnel Changes

None.

7. Subcontractor Services

Earthworks:	WRS Infrastructure & Environment, Inc.
Drilling:	Davidson Environmental
Bioventing/Groundwater Treatment:	Dakota Intertek Corp.
OWS Bypass:	Carbonair
Haz Waste Disposal:	Onyx

8. Travel

Travel for Inan Beydilli on April 10 – 17 was reported in last month's Technical Status Report. Inan traveled from Chicago to Milwaukee on April 26 and May 10 for a meeting to discuss the pilot study analysis.

Gina Bayer traveled from the Town of Menasha to the site on May 13 for groundwater sampling and the pilot test meeting, and returned home on May 15. Dave Shekoski, Keli McKenna, and Paul Arps traveled from Milwaukee to the site on May 13 for groundwater sampling, and returned home on May 15. Bob Weinschrott, Bill Andrae, and Louise Amundson traveled to the site on May 14 for the plant modification meeting with the operator and the pilot test results meeting.

They returned home on May 15. Phil Smith traveled to and from the site on May 15 to attend the pilot test results meeting. Travel charges for Bob Weinschrott will be invoiced during the next reporting period.

9. Laboratories

PDC Laboratory provided analytical services for the jar tests and pilot tests. They are a Wisconsin-certified laboratory.

10. Project Performance

The final analytical results from the pilot test were received the week before the scheduled meeting with the WAM and WDNR. Bob Weinschrott/senior process engineer worked over Mother's Day weekend to finalize the data evaluation and prepare the electronic slide presentation. At the WAM's request, CH2M HILL scheduled the presentation and roundtable discussion at the site, and combined these activities with groundwater sampling and a review of the existing plant with the operator.

AUG 5
 - all monitoring work

RAC V TECHNICAL STATUS REPORT

June 1, 2002 to June 28, 2002

WORK ASSIGNMENT NUMBER: 101-RALR-05WE
SITE NAME: Penta Wood Products-OU 1, WI
ACTIVITY: Long-Term Response Action
CH2M HILL JOB NUMBER: 159815
PREPARED BY: Regina Bayer, Site Manager
 Bill Andrae, Assistant Site Manager
PERIOD ENDING: June 28, 2002

COPIES: WAM: Tony Rutter, USEPA, Region 5
 PM: Isaac H. Johnson, CH2M HILL, Milwaukee, WI
 RTL: Phil Smith, CH2M HILL, Milwaukee, WI
 WDNR: Bill Schultz, WDNR, Rhinelander, WI
 WDNR: Dave Hantz, WDNR, Madison, WI
 WDNR: Pete Prusak, WDNR, Cumberland, WI

Bob
 Kelly

1. Progress Made This Reporting Period

On June 28, CH2M HILL submitted the *Preliminary Design Report, Treatment System Modifications* to USEPA and the WDNR.

CH2M HILL requested additional data from the laboratory on dual column PCP results to perform statistical analysis on a larger data set regarding data variability near the 0.1 ug/L value.

On June 19, Onyx picked up the drums of waste material from the pilot test. On June 25, Onyx picked up 3,000 gallons of wash water from the building decontamination.

During this reporting period, erosion control and maintenance activities were performed by Chad Lessard Excavating.

Summary of Project Status						
Task No./ Code	Planned Start	Actual Start	Planned Completion	Actual Completion	Percent Complete	Schedule Variance
1-PP	09/30/00	09/30/00	9/29/03		68	
3-DU	09/30/00	09/30/00	9/29/03		95	
4-PB	09/30/00	09/30/00	9/29/03		81	
7-CV	09/30/00	09/30/00	9/29/03		70	
8-AI	09/30/00	09/30/00	9/29/03		40	
9-PJ	09/30/00	09/30/00	9/29/03		68	
11-CO	08/01/03		9/29/03		0	

2 Problems Resolved

None.

3. Problem Areas and Recommended Solutions

The effluent discharge criteria value is too close to the laboratory detection capabilities for PCP. CH2M HILL is preparing a statistical analysis and technical memorandum to illustrate the problem.

Change Order Status			
Change orders submitted by CH2M HILL to USEPA			
CO#1	WRS Infrastructure & Environment, Inc. – final quantity adjustments	\$169,909.90	Approved
CO#2	WRS Infrastructure & Environment, Inc. – erosion repair and maintenance	\$205,693.92	Approved
Total		\$375,603.82	

4. Deliverables Submitted

On June 28, CH2M HILL submitted the *Preliminary Design Report, Treatment System Modifications* to USEPA and the WDNR.

5. Activities Planned Next Reporting Period

A tour of an operating DAF unit is planned for July 18 at a company located in Chicago. A meeting in Milwaukee is planned to discuss preliminary design comments.

6. Key Personnel Changes

None.

7. Subcontractor Services

Earthworks:	WRS Infrastructure & Environment, Inc.
Drilling:	Davidson Environmental
Bioventing/Groundwater Treatment:	Dakota Intertek Corp.
OWS Bypass:	Carbonair
Haz Waste Disposal:	Onyx

8. Travel

None.

9. Laboratories

PDC Laboratory provided analytical services for the jar tests and pilot tests. They are a Wisconsin-certified laboratory.

10. Project Performance

CH2M HILL developed a project delivery strategy consisting of breaking the work into two subcontract packages and accelerating the building package to allow for construction of the building addition this late fall, before winter halts construction progress until spring.

RAC V TECHNICAL STATUS REPORT

June 29, 2002 to July 26, 2002

WORK ASSIGNMENT NUMBER: 101-RALR-05WE
SITE NAME: Penta Wood Products-OU 1, WI
ACTIVITY: Long-Term Response Action
CH2M HILL JOB NUMBER: 159815
PREPARED BY: Regina Bayer, Site Manager
Bill Andrae, Assistant Site Manager
PERIOD ENDING: July 26, 2002
COPIES: WAM: Tony Rutter, USEPA, Region 5
PM: Isaac H. Johnson, CH2M HILL, Milwaukee, WI
RTL: Phil Smith, CH2M HILL, Milwaukee, WI
WDNR: Bill Schultz, WDNR, Rhinelander, WI
WDNR: Dave Hantz, WDNR, Madison, WI
WDNR: Pete Prusak, WDNR, Cumberland, WI

1. Progress Made This Reporting Period

On July 8, the WAM and the CH2M HILL design team, along with David Field/Salt Creek Technologies, a Nijhuis DAF unit representative, visited an operating DAF unit at the Uniqema facility in Chicago. The Uniqema operator gave a tour of the facility, detailed maintenance needs, provided tips on what works well, and discussed what he would design differently given his current knowledge. The information provided by the operator is being incorporated into the continuing design of the plant modifications.

On July 22, a conference call was held between the WAM, the CH2M HILL design team, and Bill Schultz/WDNR to discuss the preliminary design submittal.

On July 25, CH2M HILL received approval of the *Preliminary Design Report, Treatment System Modifications* from the WAM.

The May groundwater sampling results were received. CH2M HILL requested additional supporting data from the laboratory, as all residential wells and three perimeter monitoring wells that had been sampled showed about the same trace level of PCP. The data was forwarded to Dennis Wesoloski/USEPA for data validation on July 24. The fall groundwater sampling was moved up to the week of August 5 to resample the wells. CH2M HILL will specify the run sequence of the samples to the laboratory to minimize the possibility that a sample containing LNAPL is causing cross-contamination in the laboratory.

During this reporting period, the plant operator replanted small areas that had been disturbed with switchgrass, big bluestem, and indiangrass.

Summary of Project Status						
Task No./ Code	Planned Start	Actual Start	Planned Completion	Actual Completion	Percent Complete	Schedule Variance
1-PP	09/30/00	09/30/00	9/29/03		88	
3-DU	09/30/00	09/30/00	9/29/03		95	
4-PB	09/30/00	09/30/00	9/29/03		85	
5-MS	05/20/02	05/20/02	05/20/03		30	
6-RI	09/30/02		04/01/03		0	
7-CV	09/30/00	09/30/00	9/29/03		70	
8-AI	09/30/00	09/30/00	9/29/03		42	
9-PJ	09/30/00	09/30/00	9/29/03		70	
11-CO	08/01/03		9/29/03		0	

2 Problems Resolved

None.

3. Problem Areas and Recommended Solutions

The effluent discharge criteria value is too close to the laboratory detection capabilities for PCP. CH2M HILL is preparing a statistical analysis and a technical memorandum to illustrate this problem.

Change Order Status			
Change orders submitted by CH2M HILL to USEPA			
CO#1	WRS Infrastructure & Environment, Inc. – final quantity adjustments	\$169,909.90	Approved
CO#2	WRS Infrastructure & Environment, Inc. – erosion repair and maintenance	\$205,693.92	Approved
Total		\$375,603.82	

4. Deliverables Submitted

None.

5. Activities Planned Next Reporting Period

The annual full-round groundwater sampling event will be conducted the week of August 5. The PCP discharge memorandum will be presented to the WAM and WDNR project manager at that time. It is anticipated the building *Request for Bid* package will be submitted to the WDNR and USEPA and will go out for bid the week of August 12.

6. Key Personnel Changes

None.

7. Subcontractor Services

Earthworks:	WRS Infrastructure & Environment, Inc.
Drilling:	Davidson Environmental
Bioventing/Groundwater Treatment:	Dakota Intertek Corp.
OWS Bypass:	Carbonair
Haz Waste Disposal:	Onyx

8. Travel

Travel for Dave Shekoski and Bob Weinschrott was reported in the May Technical Status Report.

9. Laboratories

PDC Laboratory provided analytical services for the jar tests, pilot tests, and the May groundwater sampling round. They are a Wisconsin-certified laboratory.

10. Project Performance

A tour of an operating DAF unit in an industrial plant was arranged based on CH2M HILL's contacts with vendors.

The preliminary design report was accepted without the necessity for further revision.

RAC V TECHNICAL STATUS REPORT

July 27, 2002 to August 30, 2002

WORK ASSIGNMENT NUMBER: 101-RALR-05WE
SITE NAME: Penta Wood Products-OU 1, WI
ACTIVITY: Long-Term Response Action
CH2M HILL JOB NUMBER: 159815
PREPARED BY: Regina Bayer, Site Manager
Bill Andrae, Assistant Site Manager
PERIOD ENDING: August 30, 2002
COPIES: WAM: Tony Rutter, USEPA, Region 5
PM: Isaac H. Johnson, CH2M HILL, Milwaukee, WI
RTL: Phil Smith, CH2M HILL, Milwaukee, WI
WDNR: Bill Schultz, WDNR, Rhinelander, WI
WDNR: Dave Hantz, WDNR, Madison, WI
WDNR: Pete Prusak, WDNR, Cumberland, WI

1. Progress Made This Reporting Period

On August 1, CH2M HILL submitted the *PCP WPDES Permit Effluent Criteria Technical Memorandum* to USEPA and the WDNR for review. CH2M HILL received verbal comments from the WAM, and a revised page of the memorandum was submitted to the USEPA and WDNR on August 20.

On August 5—9, CH2M HILL conducted annual groundwater sampling at the site. Additional miscellaneous activities also conducted include ongoing erosion repairs and surveying the footprint of the new building.

On August 14, the *Treatment Building Addition Request for Bid* was submitted to USEPA, the WDNR, and to bidders. The engineer's cost estimate was submitted separately to USEPA and the WDNR. A bid on the building was received on August 28 in the amount of \$316,821. Award of the building subcontract will be withheld until USEPA can determine whether the SSC agreement with the state covers the new building. Design on the equipment is ongoing.

On August 15, preliminary residential well results were submitted to the WAM.

On August 23, replacement shrubs arrived onsite. They will replace shrubs provided under warranty by WRS, the RA earthworks subcontractor.

Summary of Project Status						
Task No./ Code	Planned Start	Actual Start	Planned Completion	Actual Completion	Percent Complete	Schedule Variance
1-PP	09/30/00	09/30/00	9/29/03		88	
3-DU	09/30/00	09/30/00	9/29/03		95	
4-PB	09/30/00	09/30/00	9/29/03		85	
5-MS	05/20/02	05/20/02	05/20/03		60	
6-RI	09/30/02		04/01/03		0	
7-CV	09/30/00	09/30/00	9/29/03		75	
8-AI	09/30/00	09/30/00	9/29/03		68	
9-PJ	09/30/00	09/30/00	9/29/03		70	
11-CO	08/01/03		9/29/03		0	

2 Problems Resolved

None.

3. Problem Areas and Recommended Solutions

The effluent discharge criteria value is too close to the laboratory detection capabilities for PCP. CH2M HILL has prepared a statistical analysis and a technical memorandum to illustrate this problem.

Change Order Status			
Change orders submitted by CH2M HILL to USEPA			
CO#1	WRS Infrastructure & Environment, Inc. – final quantity adjustments	\$169,909.90	Approved
CO#2	WRS Infrastructure & Environment, Inc. – erosion repair and maintenance	\$205,693.92	Approved
Total		\$375,603.82	

4. Deliverables Submitted

On August 1, CH2M HILL submitted the *PCP WPDES Permit Effluent Criteria Technical Memorandum* to USEPA and the WDNR for review. On August 14, the *Treatment Building Addition Request for Bid* document was submitted. On August 15, preliminary residential well results were submitted.

5. Activities Planned Next Reporting Period

Upon approval from USEPA, the building subcontract will be awarded. Design on the equipment for the treatment plant modification is ongoing.

6. Key Personnel Changes

None.

7. Subcontractor Services

Earthworks:	WRS Infrastructure & Environment, Inc.
Drilling:	Davidson Environmental
Bioventing/Groundwater Treatment:	Dakota Intertek Corp.
OWS Bypass:	Carbonair
Haz Waste Disposal:	Onyx

8. Travel

Gina Bayer, Paul Arps, Dave Shekoski, Rob Stryker, and Steve Paukner traveled to the site from their homes on August 5 to conduct groundwater sampling. Paul Arps, Rob Stryker, and Steve Paukner returned home on August 8. Gina Bayer and Dave Shekoski returned home on August 9.

9. Laboratories

PDC Laboratory provided analytical services for the groundwater sampling round. They are a Wisconsin-certified laboratory. They were provided instructions on the sequence in which to analyze the groundwater samples, grouped from lowest contamination to highest, with low-level wells on one GC, and high-level wells on a different GC.

10. Project Performance

A groundwater sampling team was pulled together with 2 weeks notice, as the decision was made to move up the sampling date. A geotechnical engineer was included on the sampling team so he could survey the new building footprint, determine cut and fill quantities, lay out the new driveway, and determine drainage needs.

RAC V TECHNICAL STATUS REPORT

August 31, 2002 to September 27, 2002

WORK ASSIGNMENT NUMBER: 101-RALR-05WE
SITE NAME: Penta Wood Products-OU 1, WI
ACTIVITY: Long-Term Response Action
CH2M HILL JOB NUMBER: 159815
PREPARED BY: Regina Bayer, Site Manager
Bill Andrae, Assistant Site Manager
PERIOD ENDING: September 27, 2002
COPIES: WAM: Tony Rutter, USEPA, Region 5
PM: Isaac H. Johnson, CH2M HILL, Milwaukee, WI
RTL: Phil Smith, CH2M HILL, Milwaukee, WI
WDNR: Bill Schultz, WDNR, Rhinelander, WI
WDNR: Dave Hantz, WDNR, Madison, WI
WDNR: Pete Prusak, WDNR, Cumberland, WI

1. Progress Made This Reporting Period

On September 12, the WAM notified CH2M HILL that the building subcontract amount was within the SSC agreement limit and that CH2M HILL could move forward with notice to proceed on the building construction. Verbal notice to proceed was given to the Jansen Group, Inc. the same day, and they received the subcontract for signature from CH2M HILL on September 16. During the remainder of the reporting period, CH2M HILL received administrative submittals from the Jansen Group, whom coordinated with their subcontractors on technical submittals, material ordering, and the schedule.

On September 16, the SM forwarded the building schedule provided by the Jansen Group in their bid to the WAM for informational purposes.

On September 27, CH2M HILL received WAF Revision No. 11 from USEPA providing incremental funding to increase the expenditure limit LOE and budget.

Throughout this reporting period, work continued on the design of the treatment plant equipment. A Hazard Operations review of the modified treatment plant was held on September 24.

The remainder of the analytical data from the August groundwater sampling event was received from the laboratory. A trends analysis is being conducted with the current and historic sampling data.

A lease/buy analysis was performed for bag filter housings. A memorandum is being prepared for submittal to USEPA.

The erosion control vendor for the site was replaced. Darcy Brust Excavating will replace Chad Lessart Excavating.

A total of 80 saplings were planted on the northeastern hillside of the site by WRS to replace 80 trees that had died while under warranty. With this action, WRS has completed their scope of work at the site, and CH2M HILL is releasing the final retainage that was being held from WRS.

Summary of Project Status						
Task No./ Code	Planned Start	Actual Start	Planned Completion	Actual Completion	Percent Complete	Schedule Variance
1-PP	09/30/00	09/30/00	9/29/03		88	
3-DU	09/30/00	09/30/00	9/29/03		95	
4-PB	09/30/00	09/30/00	9/29/03		85	
5-MS	05/20/02	05/20/02	05/20/03		95	
6-RI	09/30/02		04/01/03		0	
7-CV	09/30/00	09/30/00	9/29/03		85	
8-AI	09/30/00	09/30/00	9/29/03		68	
9-PJ	09/30/00	09/30/00	9/29/03		72	
11-CO	08/01/03		9/29/03		0	

2 Problems Resolved

None.

3. Problem Areas and Recommended Solutions

The effluent discharge criteria value is too close to the laboratory detection capabilities for PCP. CH2M HILL has prepared a statistical analysis and a technical memorandum to illustrate this problem.

Change Order Status			
Change orders submitted by CH2M HILL to USEPA			
CO#1	WRS Infrastructure & Environment, Inc. – final quantity adjustments	\$169,909.90	Approved
CO#2	WRS Infrastructure & Environment, Inc. – erosion repair and maintenance	\$205,693.92	Approved
Total		\$375,603.82	

4. Deliverables Submitted

None.

5. Activities Planned Next Reporting Period

Construction will begin on the new treatment building. Ongoing erosion repairs and maintenance will continue. A report will be submitted on the groundwater sampling event. A lease/buy memorandum on bag filter housings will also be submitted.

6. Key Personnel Changes

None.

7. Subcontractor Services

Earthworks:	WRS Infrastructure & Environment, Inc.
Drilling:	Davidson Environmental
Bioventing/Groundwater Treatment:	Dakota Intertek Corp.
OWS Bypass:	Carbonair
Haz Waste Disposal:	Onyx

8. Travel

Rick Johnson, senior CH2M HILL chemical engineer, traveled from CH2M HILL's Herndon, Virginia office to Milwaukee on September 24 to facilitate a Hazard Operations review, and returned home on September 25.

9. Laboratories

PDC Laboratory provides analytical services for groundwater sampling. They are a Wisconsin-certified laboratory.

10. Project Performance

Once given approval by USEPA to award the bid, CH2M HILL immediately notified the building subcontractor. The subcontract was submitted to the subcontractor the next day for execution.

A qualified, experienced resident inspector from CH2M HILL's transportation group was located and scheduled for the upcoming building construction. (The inspector resides in Tomahawk, Wisconsin, which is located about 2 hours from the site by car).

RAC V TECHNICAL STATUS REPORT

September 28, 2002 to October 25, 2002

WORK ASSIGNMENT NUMBER: 101-RALR-05WE
SITE NAME: Penta Wood Products-OU 1, WI
ACTIVITY: Long-Term Response Action
CH2M HILL JOB NUMBER: 159815
PREPARED BY: Regina Bayer, Site Manager
Bill Andrae, Assistant Site Manager
PERIOD ENDING: October 25, 2002
COPIES: WAM: Tony Rutter, USEPA, Region 5
PM: Isaac H. Johnson, CH2M HILL, Milwaukee, WI
RTL: Phil Smith, CH2M HILL, Milwaukee, WI
WDNR: Bill Schultz, WDNR, Rhinelander, WI
WDNR: Dave Hantz, WDNR, Madison, WI
WDNR: Pete Prusak, WDNR, Cumberland, WI

1. Progress Made This Reporting Period

During this reporting period, CH2M HILL continued to receive and review technical submittals and shop drawings from the Jansen Group for the new building. On October 15, the SM forwarded an updated building schedule from the Jansen Group to the WAM and the WDNR project manager.

The following onsite building construction activities occurred during this reporting period:

- On October 10, a pre-construction meeting was held at the site with CH2M HILL, the Jansen Group, and the Jansen Group's subcontractors.
- A utility locate was conducted, site mobilization was completed, and the excavation was completed for the building footings.
- The power company was contacted regarding relocation of the power pole.
- Temporary access roads were constructed in alignment with plans for the permanent site road.
- The concrete for the footings was poured.

Additional onsite activities conducted this reporting period included repair of erosional gullies, installation of an additional sedimentation basin above the eastern gabion, and buttressing drainage channels with stone rip rap. Previously planted shrubs that obstructed the construction site or access road were relocated.

On October 7, CH2M HILL submitted the equipment prefinal design package to USEPA and the WDNR. On October 18, CH2M HILL submitted the final design cost

estimate and electrical drawings. On October 24, CH2M HILL received the equipment package design review comments from USEPA.

On October 15, a conference call was held between the WAM, the WDNR project manager, the SM, and the ASM. Topics of discussion included submitting the design plans to the Wisconsin Department of Commerce for review; construction schedule and SSC revisions; and a proposal to revise the PCP permit effluent criteria to 1.0 µg/L from 0.1 µg/L based on analytical limitations. The WDNR project manager stated that the WDNR had reviewed the memorandum submitted by CH2M HILL and agreed that the WDNR Enforcement Standard (ES) criteria would be used for this site, rather than the WDNR Preventive Action Limit (PAL).

CH2M HILL contacted Mark Bennett, the Plan Review Specialist with the Wisconsin Department of Commerce, Environmental Regulatory Service Division, Bureau of Storage Tank Regulation section. It was determined the Wisconsin Commerce Department will review the plans within 15 days of receipt. Preparation of the standard application forms began.

On October 1, analytical data and CLP-equivalent data packages for groundwater samples collected during August 2002 were submitted to Dennis Wesolowski of USEPA CRL for data validation. Evaluation and trend analysis of current and historic groundwater sampling data for the 2002 annual groundwater sampling memorandum continued.

A lease/purchase analysis was performed for bag filter housings. On October 23, the USEPA CO agreed to incorporate the purchase of bag filter housings into the new equipment subcontract package.

Summary of Project Status						
Task No./ Code	Planned Start	Actual Start	Planned Completion	Actual Completion	Percent Complete	Schedule Variance
1-PP	09/30/00	09/30/00	9/29/03		90	
3-DU	09/30/00	09/30/00	9/29/03		95	
4-PB	09/30/00	09/30/00	9/29/03		90	
5-MS	05/20/02	05/20/02	05/20/03		130	
6-RI	09/30/02	10/14/02	04/01/03		20	
7-CV	09/30/00	09/30/00	9/29/03		85	
8-AI	09/30/00	09/30/00	9/29/03		45	
9-PJ	09/30/00	09/30/00	9/29/03		72	
11-CO	08/01/03		9/29/03		0	

2. Problems Resolved

The WDNR project manager stated that the WDNR had reviewed the memorandum submitted by CH2M HILL regarding the revisal of PCP effluent permit criteria. The project manager agreed that the criteria for this site would be the WDNR Enforcement Standard (ES), rather than the WDNR Preventive Action Limit (PAL).

3. Problem Areas and Recommended Solutions

None.

Change Order Status			
Change orders submitted by CH2M HILL to USEPA			
CO#1	WRS Infrastructure & Environment, Inc. - final quantity adjustments	\$169,909.90	Approved
CO#2	WRS Infrastructure & Environment, Inc., - erosion repair and maintenance	\$205,693.92	Approved
Total		\$375,603.82	

4. Deliverables Submitted

On October 1, analytical data and CLP-equivalent data packages for groundwater samples collected during August 2002 were submitted to Dennis Wesolowski of USEPA CRL for data validation. On October 7, CH2M HILL submitted the equipment prefinal design package to USEPA and the WDNR. On October 18, CH2M HILL submitted the final design cost estimate and electrical drawings.

5. Activities Planned Next Reporting Period

Construction of the new treatment building will continue. A technical memorandum will be submitted on the groundwater sampling event, and a memorandum will be submitted explaining the use of a non-CLP lab for the site.

6. Key Personnel Changes

None.

7. Subcontractor Services

Earthworks:	WRS Infrastructure & Environment, Inc.
Drilling:	Davidson Environmental
Bioventing/Groundwater Treatment:	Dakota Intertek Corp.
OWS Bypass:	Carbonair
Haz Waste Disposal:	Onyx
Building Construction:	The Jansen Group

8. Travel

Tony Younkers, a resident inspector, traveled to the site for a 1-day pre-construction meeting on October 10. He also traveled to the site on October 14, returning home October 18, and to the site again on October 21, returning home October 25, to inspect the construction concrete work. Travel charges for October 21-25 will be invoiced during the next reporting period.

9. Laboratories

PDC Laboratory provides analytical services for groundwater sampling. They are a Wisconsin-certified laboratory.

10. Project Performance

Based on the statistical analysis CH2M HILL performed of laboratory PCP analytical results during the pilot test, the WDNR has accepted CH2M HILL's proposal to revise the effluent criteria to the ES of 1.0 $\mu\text{g}/\text{L}$, versus the PAL of 0.1 $\mu\text{g}/\text{L}$.

RAC V TECHNICAL STATUS REPORT

October 26, 2002 to November 29, 2002

WORK ASSIGNMENT NUMBER: 101-RALR-05WE
SITE NAME: Penta Wood Products-OU 1, WI
ACTIVITY: Long-Term Response Action
CH2M HILL JOB NUMBER: 159815
PREPARED BY: Regina Bayer, Site Manager
Bill Andrae, Assistant Site Manager
PERIOD ENDING: November 29, 2002
COPIES: WAM: Tony Rutter, USEPA, Region 5
PM: Isaac H. Johnson, CH2M HILL, Milwaukee, WI
RTL: Phil Smith, CH2M HILL, Milwaukee, WI
WDNR: Bill Schultz, WDNR, Rhinelander, WI
WDNR: Dave Hantz, WDNR, Madison, WI
WDNR: Pete Prusak, WDNR, Cumberland, WI

1. Progress Made This Reporting Period

The following onsite building construction activities occurred under subcontractor 10 Construction, Inc. (a member of the Jansen Group, as mentioned in last month's TSR) during this reporting period:

- The forms for the concrete footings were stripped, the forms for the foundation walls were installed, and the foundation walls were poured.

Additional construction activities that occurred independently of 10 Construction, Inc., but were coordinated by CH2M HILL, included:

- Existing power poles were relocated and temporary power to the outside was established. The treatment plant operator coordinated and provided oversight for the work of Northwestern Power and local electrician Mauer Power.
- A portion of the access road to the new building was constructed by Darcy Brust Excavating to allow access for flatbeds with heavy loads.
- Darcy Brust Excavating also hauled and piled large stones onsite. The large stones will be needed in the spring to line the drainage channels along the new sections of the access road. The source for the stones (northern Polk County) is reportedly inaccessible in the spring due to wet conditions.

On November 6, CH2M HILL submitted the *Post-RA Groundwater Sampling Results May 2002 and August 2002 Sampling Events* technical memorandum to USEPA and the WDNR. The *Justification of Non-CLP Analytical Services* technical memorandum was also submitted on November 6.

On October 31 and November 7, conference calls were held to discuss the comments and responses on the prefinal design for the equipment RFP package. The design was given verbal approval; however, a hold was placed on sending the package out to bid until further resolution could be achieved regarding the long-term O&M costs and the SSC agreement. A conference call discussing O&M costs was held on November 18, and it was agreed that a detailed O&M cost estimate would be submitted and options on possible LNAPL recycling would be investigated further.

Final adjustments were made to prepare the RFB for submittal, and discussions on the solicitation strategy were held with CH2M HILL's Contracts group.

On November 27, CH2M HILL submitted analytical raw data for water total and dissolved metal analyses to Dennis Wesolowski/USEPA.

An e-mail was received from Bill Schultz, WDNR project manager, explaining that the discussion in last month's TSR regarding WDNR's acceptance of a new effluent discharge limit of 1.0 µg/l was misinterpreted. Here is clarification on the issue from Bill Schultz's e-mail: "My verbal comments were not intended (nor can) modify the criterion of 0.1 ug/L for PCP as required in the ROD. Any such modification would need to be agreed to in writing by WDNR personnel in both the Bureau of Waste Water and the Bureau of Remediation and Redevelopment. We agree that effluent standard can be measured at the groundwater not at the end of the pipe, but no PAL exceedences beyond the property limits would be allowed. If PCP can not be measured accurately and consistently at 0.1 ug/L for PCP, a new slightly higher level specific to the Penta Wood Site could be established at which PCP can be accurately quantified."

The WDNR would like to observe what effluent PCP level can be reached once the plant's modifications are finished and the plant is operating again before finalizing the criteria.

Summary of Project Status						
Task No./ Code	Planned Start	Actual Start	Planned Completion	Actual Completion	Percent Complete	Schedule Variance
1-PP	09/30/00	09/30/00	9/29/03		93	
3-DU	09/30/00	09/30/00	9/29/03		95	
4-PB	09/30/00	09/30/00	9/29/03		90	
5-MS	05/20/02	05/20/02	05/20/03		190	
6-RI	09/30/02	10/14/02	04/01/03		20	
7-CV	09/30/00	09/30/00	9/29/03		85	
8-AI	09/30/00	09/30/00	9/29/03		45	
9-PJ	09/30/00	09/30/00	9/29/03		72	
11-CO	08/01/03		9/29/03		0	

2. Problems Resolved

None.

3. Problem Areas and Recommended Solutions

None.

Change Order Status			
Change orders submitted by CH2M HILL to USEPA			
CO#1	WRS Infrastructure & Environment, Inc. – final quantity adjustments	\$169,909.90	Approved
CO#2	WRS Infrastructure & Environment, Inc. – erosion repair and maintenance	\$205,693.92	Approved
	Total	\$375,603.82	

4. Deliverables Submitted

On November 6, CH2M HILL submitted the *Post-RA Groundwater Sampling Results May 2002 and August 2002 Sampling Events* technical memorandum to USEPA and the WDNR. The *Justification of Non-CLP Analytical Services* technical memorandum was also submitted on November 6.

5. Activities Planned Next Reporting Period

Construction of the new treatment building is expected to continue during the next reporting period.

6. Key Personnel Changes

None.

7. Subcontractor Services

Earthworks:	WRS Infrastructure & Environment, Inc. and Darcy Brust Excavating
Drilling:	Davidson Environmental
Bioventing/Groundwater Treatment:	Dakota Intertek Corp.
OWS Bypass:	Carbonair
Haz Waste Disposal:	Onyx
Building Construction:	The Jansen Group (10 Construction, Inc.)

8. Travel

Travel for Tony Younker in October was reported in last month's Technical Status Report.

Tony Younker traveled to the site on November 5-8, and 12-13 to inspect the new treatment building.

9. Laboratories

PDC Laboratory provides analytical services for groundwater sampling. They are a Wisconsin-certified laboratory.

10. **Project Performance**

Comments on the equipment design were resolved with minimal rework needed. The various subcontractors and vendors performing work at the site have been coordinated by CH2M HILL with the final product in mind, leading to efficiencies.

RAC V TECHNICAL STATUS REPORT

November 30, 2002 to December 27, 2002

WORK ASSIGNMENT NUMBER: 101-RALR-05WE
SITE NAME: Penta Wood Products-OU 1, WI
ACTIVITY: Long-Term Response Action
CH2M HILL JOB NUMBER: 159815
PREPARED BY: Regina Bayer, Site Manager
Bill Andrae, Assistant Site Manager
PERIOD ENDING: December 27, 2002
COPIES: WAM: Tony Rutter, USEPA, Region 5
PM: Isaac H. Johnson, CH2M HILL, Milwaukee, WI
RTL: Phil Smith, CH2M HILL, Milwaukee, WI
WDNR: Bill Schultz, WDNR, Rhinelander, WI
WDNR: Dave Hantz, WDNR, Madison, WI
WDNR: Pete Prusak, WDNR, Cumberland, WI

1. Progress Made This Reporting Period

The following onsite building construction activities occurred under subcontractor 10 Construction, Inc. (a member of the Jansen Group) during this reporting period:

- Expansion joints were cut into the equipment pads and bullards (bumper posts) were installed.
- The structural steel was erected and secured.
- Exterior wall panels, insulation, and the window was installed.
- Hollow metal doors were installed.

During construction of the new breezeway connecting the new and old buildings, it was discovered that the anchor bolts were incorrectly placed in one location. Mary Wicklund/CH2M HILL notified Bill Andrae/CH2M HILL of the issue. The problem was discussed between the subcontractor and CH2M HILL's structural engineer, and a solution was developed.

On December 6, CH2M HILL submitted the revised draft operation and maintenance (O&M) costs for the Penta Wood treatment system. The O&M costs were discussed with WAM during a phone call on December 13.

Minor adjustments were made to the equipment design package to finalize the sizing of the HVAC units and to address USEPA comments.

Summary of Project Status						
Task No./ Code	Planned Start	Actual Start	Planned Completion	Actual Completion	Percent Complete	Schedule Variance
1-PP	09/30/00	09/30/00	9/29/03		93	
3-DU	09/30/00	09/30/00	9/29/03		95	
4-PB	09/30/00	09/30/00	9/29/03		90	
5-MS	05/20/02	05/20/02	05/20/03		240	
6-RI	09/30/02	10/14/02	04/01/03		40	
7-CV	09/30/00	09/30/00	9/29/03		85	
8-AI	09/30/00	09/30/00	9/29/03		60	
9-PJ	09/30/00	09/30/00	9/29/03		75	
11-CO	08/01/03		9/29/03		0	

2. Problems Resolved

None.

3. Problem Areas and Recommended Solutions

None.

Change Order Status			
Change orders submitted by CH2M HILL to USEPA			
CO#1	WRS Infrastructure & Environment, Inc. – final quantity adjustments	\$169,909.90	Approved
CO#2	WRS Infrastructure & Environment, Inc. – erosion repair and maintenance	\$205,693.92	Approved
Total		\$375,603.82	

4. Deliverables Submitted

On December 6, CH2M HILL submitted the revised draft O&M costs for the Penta Wood treatment system to USEPA and the WDNR.

5. Activities Planned Next Reporting Period

Pending weather conditions, with the exception of exterior painting, construction of the new treatment building is expected to be near completion during the next reporting period. Exterior painting will be performed in the spring.

6. Key Personnel Changes

None.

7. Subcontractor Services

Earthworks:	WRS Infrastructure & Environment, Inc. and Darcy Brust Excavating
Drilling:	Davidson Environmental
Bioventing/Groundwater Treatment:	Dakota Intertek Corp.
OWS Bypass:	Carbonair
Haz Waste Disposal:	Onyx
Building Construction:	The Jansen Group (10 Construction, Inc.)

8. Travel

Tony Younker traveled to the site on December 2 to inspect the new treatment building.

9. Laboratories

PDC Laboratory provides analytical services for groundwater sampling. They are a Wisconsin-certified laboratory.

10. Project Performance

The walls and the floors are being erected with caution due to the windy conditions experienced at the site. Several employee safety precautions are being taken. If site conditions become too windy, the work is halted until conditions improve.