

DISTRIBUTION  
PROJECT MANAGERS' MEETING,  
200 AREA GROUNDWATER SOURCE OPERABLE UNITS  
May 20, 2010

DOE/RL  
(No hard copy distribution)

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Craig Cameron B1-46

Ecology  
Nina Menard H0-57

CHPRC  
Janice Williams (original) E6-35

Administrative Record (2) H6-08  
Correspondence Control A3-01

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D-2-8  
D-2-3

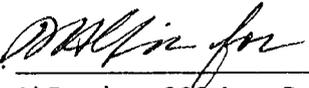
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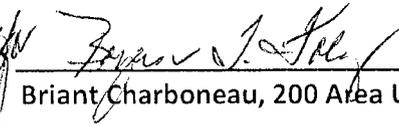
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200-CW-3 200-PW-3 200-MG-1 200-PW-1  
200-PW-26 200-ZP-1

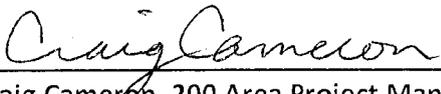
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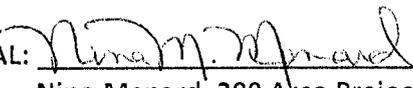
Meeting Minutes Transmittal/Approval  
Project Managers' Meeting  
200 Area Groundwater and Source Operable Units  
May 20, 2010

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APPROVAL:  DATE: 06/17/10  
Al Farabee, 200 Area Project Manager, DOE/RL

APPROVAL:  DATE: 06/17/10  
Briant Charboneau, 200 Area Unit Manager, DOE/RL

APPROVAL:  DATE: 6/17/10  
Craig Cameron, 200 Area Project Manager, EPA

APPROVAL:  DATE: 06/17/10  
Nina Menard, 200 Area Project Manager, Ecology

HFFACO Action Plan Section 4.1 requires signature of agreements and commitments made during the Project Manager Meeting. Approval of these minutes documents approval of agreements and commitments documented in Attachment 4 to these minutes. Approval does not apply to any other attachments, which are included in these minutes for informational purposes.

Minutes of the 200 Area Project Managers' Meeting of May 20, 2010 are attached. Minutes are comprised of the following.

Attachment 1	Attendance Record
Attachment 2	Agreements and Issues List
Attachment 3	Action Item List
Attachment 4	Project Status Updates
Attachment 5	U Ancillary Buildings 224-U, 224-UA, and 203-UX Demolition Strategy White Paper

200 Area Project Managers' Status Meeting  
May 20, 2010

Please print clearly and use black ink

PRINTED NAME	ORGANIZATION	O.U. ROLE	TELEPHONE
JOHN CULMER	WOOD	—	946-0790
Frank Ruddy	DOE/RL	AMCP	372-0945
Chris Gazzetti	EPA		376-9529
Craig Cameron	EPA		376-8665
Glossbrenner, Elizabeth	DOE		3765828
Rod Cobos	EPA		376-3749
Greg SIMTON	RL		377-7987
NAOMI BLAND	RL		376-5527
Brian Charbonneau	RL	ODM	3-6137
Rayan Tracy	RL	AMCP	6-7087
Arlene Tortoso	DOE-RL		373-9621
JOHN MORSE	DOE-RL	DUZ	376-0017
Dottie Norman	CHPRC		373-2027
WAL AL FARABEO	DOE-RL		376-8087
CURT WALKER	CHPRC		438-7144
Rock Bond	Ecology		372-7885
Asopum Opreng	Ecology		372-7956
R Douglas Hildebrand	DOE		373-9626
Zelma JACKSON	Ecology	200 Area Dir	372-7910
Dorey Chapin	DOE-RL-0040	RL-0046	373-9396



**200 Area Project Managers' Meeting  
Agreements and Issues List  
May 20, 2010**

**Agreement:** Add the U Ancillary Buildings 224-U, 224-UA, and 203-UX Demolition Strategy White Paper to these meeting minutes to ensure the white paper is entered into the Administrative Record.

**Issue:** The Parties need to hold discussions on 200-IS-1 to scope out which pipelines are included in the 200-IS-1 OU.

**Delegations for May 20, 2010 PMM meeting:**

EPA	Craig Cameron
Ecology	Nina Menard
DOE/RL	Briant Charboneau Al Farabee

200 Area Project Managers' Meeting  
 May 20, 2010

CHPRC-1000410  
 Attachment 3

OPEN ACTION ITEM TRACKING

Action #	Action/Subject	Assigned To	Owed To	Assigned Date	Original Due Date	Adjusted Due Date	Status
126	Ecology will provide their choice of a location (site) for MIS to be completed	Ecology/Nina Menard	DOE	5/20/10	TBD		
127	RL will schedule a 200-BP-5 status meeting with EPA and Ecology	DOE/John Morse	EPA & Ecology	5/20/10	6/17/10		
128	Verify WIDS is current to all Appendix C updates	DOE/Doug Hildebrand	EPA & Ecology	5/20/10	6/17/10		

200 AREA PROJECT MANAGERS MEETING  
PROJECT STATUS UPDATES

May 20, 2010  
AGENDA

**CENTRAL PLATEAU INNER AREA**

200-WA-1  
200-EA-1 CMS & FS / CAD & PP  
200-PW-1/3/6  
SVE  
200-CW-5

**Inner Area: Central Plateau Burial Grounds**

200-SW-2

**Inner Area: Central Plateau Canyons & Facilities**

U Plant Canyon  
B Plant Canyon/Waste Sites  
PUREX Canyon/Waste Sites  
REDOX Canyon/Waste Sites  
224B Concentration Facility  
224T Transuranic Storage and Assay Facility  
EE/CA Report(s)

**Inner Area: Central Plateau Vadose Zone**

200-DV-1 RI/FS  
200-DV-1 Uranium  
200-DV-1 Tc-99

**BOTH INNER & OUTER AREAS**

200-IS-1 CMS & FS / CAD & PP

**RCRA Units**

Hexone TSD Closure  
Other TSD Closures

**CENTRAL PLATEAU OUTER AREA**

200-CW-1 and 200-CW-3 FS/PP  
200-OA-1  
200-SW-1

**Field Work**

Rail Car Disposition  
200-MG-1  
200-BC Control Area  
200-CW-3  
West Lake  
Multi-Increment Sampling

**Risk Assessment**

Central Plateau Ecological Risk

**CENTRAL PLATEAU GROUNDWATER**

200-ZP-1 Interim Action  
200 West P&T  
200-UP-1 RI/FS  
S/SX Interim Action  
200-BP-5 and 200-PO-1 FS  
200-BP-5 TTP  
Groundwater Plumes – Final Remedy

## 200 AREA PROJECT MANAGERS MEETING PROJECT STATUS UPDATES

May 20, 2010

### CENTRAL PLATEAU INNER AREA

**200-WA-1 EPA Lead** (RL- Arlene Tortoso, CHPRC – Mike Hickey)

**P-015-91A, Submit RI/FS Work Plan for the 200-WA-1 to EPA, 12/31/2011**

**P-015-91B, Submit FS Report and PP for 200-WA-1 to EPA, 6/30/2013**

- Work on the 200-UW-1 proposed plan and the 200-BC-1 feasibility study and proposed plan have been suspended.
- Initiated planning of the Central Plateau decision documents to align with the Tentative Agreement.
- Transmitted the response to comments for the U-8 and U-12 SAP to Ecology.
- Continuing with the field preparation activities for the deep vadose zone boreholes associated with the U-1/2, U-8, and U12 cribs.
- Awarded the electroresistivity investigation subcontract for characterization of the U-8 and U-12 cribs.
- Held a meeting with EPA and Ecology to present the graded approach methodology to determine soil concentrations protective of groundwater for the Central Plateau.

Schedule Status: Planning for the Central Plateau decision documents to achieve the Tentative Agreement milestones is underway.

### Regulator Comments:

**200-EA-1 Ecology Lead** (RL- Doug Hildebrand, CHPRC – Mike Hickey)

**P-015-92A, Submit RFI/CMS and RI/FS Work Plan for the 200-EA-1 to Ecology, 12/31/2012**

- Initiated planning of the Central Plateau decision documents to align with the Tentative Agreement.
- EPA has requested a 30-day extension on the review of the 200-MW-1 feasibility study. DOE received comments.
- Initiated the DQA reports for the K, L, and M wells.

**200-EA-1 & 200-IS-1 Ecology Lead (RL- Doug Hildebrand, CHPRC – Greg Berlin)  
P-015-92B, Submit CMS & FS & Proposed CA Decision/PP for EA-1 & IS-1  
to Ecology, 6/30/2014**

- Initiated planning of the Central Plateau decision documents to align with the Tentative Agreement.

Schedule Status: Planning for the Central Plateau decision documents to achieve the Tentative Agreement milestones is underway.

Regulator Comments:

**200-PW-1/3/6 Ecology Lead (RL- Arlene Tortoso, CHPRC – Mike Hickey)**

- Due to an early April crash of two PNNL disks, rebuilding/rerunning the models has taken longer than anticipated due to long delivery times for computer parts and incorporation of information to define the mass of the potential contaminants.
- The feasibility study and proposed plan are scheduled to be reviewed by RL mid July, 2010.

Soil Vapor Extraction System (SVE): (RL- Arlene Tortoso, CHPRC – Virginia Rohay)

- Monthly monitoring results for March and April 2010 for the soil vapor probes and wells were consistent with the results from previous monitoring.
- The two new SVE units are running smoothly. They were shut for a short period earlier this week to clean out the dust and blowing sand from the recent wind storm. Both units are back running.

Schedule Status:

Regulator Comments:

**200-CW-5 EPA Lead (RL- Greg Sinton, CHPRC – Mike Hickey)**

- Preparing Draft C feasibility study for submittal to EPA mid July 2010.

Schedule Status:

Regulator Comments:

**Inner Area: Central Plateau Burial Grounds**

**200-SW-2 Ecology Lead** (RL – Doug Hildebrand, CHPRC – Greg Berlin)

**P-015-93A, Submit Revised RFI/CMS and RI/FS Work Plan for 200-SW-2 to Ecology, 12/31/2011**

**P-015-93B, Submit RFI/CMS & RI/FS & Proposed CA Decision/PP for SW-2 to Ecology, 12/31/2016**

- Initiated planning of the Central Plateau decision documents to align with the Tentative Agreement.

Schedule Status: Planning for the Central Plateau decision documents to achieve the Tentative Agreement milestones is underway.

Regulator Comments:

**Inner Area: Central Plateau Canyons and Facilities**

**U Plant Canyon EPA Lead** (RL – Wade Woolery, CHPRC – Tina Crane)

**P-016-200A, Complete U Plant Canyon (221-U) Demolition in accordance w/ RD/RAWP, 9/30/2017**

**P-016-200B, Complete U Plant Canyon (221-U) Barrier Construction in accordance w/ RD/RAWP, 9/30/2021**

- Progressing equipment size reduction and cell loading activities; status is 85% as of May 10, 2010, activity completion estimated for mid-June 2010.
- 90% Design summary for size reduction activities went through EPA review; comments were submitted.
- The Statement of Work for grout conveyance and delivery has been reworked and is in final CHPRC review.
- Planning within CHPRC has begun for the transfer of the D-10 tank from U Plant Cell 30 to T Plant.

Schedule Status: On schedule

Regulator Comments:

**B Plant Canyon/Waste Sites Ecology Lead** (RL – Naomi Bland, CHPRC – Marty Doornbos)

**P-85-10A, Submit RI/FS Work Plan for 200-CB-1, 12/21/2011**

- Initiated planning of the Central Plateau decision documents to align with the Tentative Agreement.

Schedule Status: Planning for the Canyon decision documents to achieve the Tentative Agreement milestones is underway.

Regulator Comments:

**PUREX Canyon/Waste Sites Ecology Lead** (RL – Frank Roddy, CHPRC – Marty Doornbos)

**P-85-20A, Submit RI/FS Work Plan for 200-CP-1, 9/30/2015**

**REDOX Canyon/waste sites EPA Lead** (RL – Naomi Bland, CHPRC – Marty Doornbos)

**P-85-30A, Submit RI/FS Work Plan for 200-CR-1, 12/31/2017**

**224B Concentration Facility Ecology Lead** (RL- Kevin Leary, CHPRC – Curt Walker)

**M-085-50, Submit revised removal action work plan for the 224B Concentration Facility in accordance with the Action Memorandum for the Non-Time Critical Removal Action for the 224-B Plutonium Concentration Facility (DOE/RL-2004-36). A change package with a completion milestone will accompany the submittal of the work plan, 12/31/2015**

**224T Transuranic Storage and Assay Facility Ecology Lead** (RL- Kevin Leary, CHPRC – Curt Walker)

**M-085-51, Submit removal action work plan for the 224T Transuranic Storage and Assay Facility in accordance with the Action Memorandum for the Non-Time-Critical Removal Action for the 224-T Plutonium Concentration Facility (DOE/RL-2004-68). A change package with a completion milestone will accompany the submittal of the work plan. 12/31/2025**

**EE/CA Report(s) EPA Lead (RL – Doug Chapin, CHPRC, Tina Crane)**

**P-85-60, Complete EE/CA report(s) for all Tier 2 facilities listed in Appendix J, 3/31/2018**

- Schedule is in development for 200E EE/CA; indication of time frames for regulatory agency review and public involvement will appear in the next update.

**Inner Area: Central Plateau Deep Vadose Zone**

**200-DV-1 Ecology Lead (RL – John Morse, CHPRC – Curt Wittreich)**

**P-015-110A, Submit RFI/CMS & RI/FS Work Plan for 200-DV-1 to Ecology, 9/30/2012**

**P-015-110B, Submit CMS & FS & PP/Proposed CA Decision for 200-DV-1 to Ecology, 9/30/2015**

- Initiated baseline.

Schedule Status: On schedule

Regulator Comments:

**200-DV-1 Ecology Lead (RL – John Morse, CHPRC – Glen Chronister)**

**P-015-110C, Submit Uranium Treatment FTP Draft A per Deep Vadose Zone Treatability Test Plan, DOE/RL-2007-56 to Ecology, 12/31/2010**

Uranium Sequestration Pilot Test:

- Completing Data Quality Objectives (DQO) document. One final meeting to review changes is scheduled for May 18, 2010.
- Developing the Uranium Sequestration Field Test Plan and Sample Analysis Plan.
- Forming an expert review panel to review the activities and objectives of the Uranium Sequestration work during the month of July.

Schedule Status: On schedule

Regulator Comments:

**200-DV-1 Ecology Lead** (RL – John Morse, CHPRC – Glen Chronister)

**P-015-110D, Submit Tc-99 Pilot Scale Treat. Study Test Report per Deep Vadose Zone Treatability Test Plan, DOE/RL-2007-56 to EPA, 6/30/2012**

- Preparing a Statement of Work (SOW) for the rental of equipment and supply of liquid nitrogen for the Desiccation Pilot Test planned for this coming October.
- Completed engineered drawings for the Desiccation Pilot Test.
- Preparing work packages to allow the assembly of components and initiation of field work.
- Completed 20 instrumented wells and logging wells (10 of each)

Schedule Status: On schedule

Regulator Comments:

### **BOTH INNER & OUTER AREAS**

**200-IS-1 Ecology Lead** (RL- Doug Hildebrand, CHPRC – Greg Berlin)

**P-015-90, Submit Revised RFI/CMS and RI/FS Work Plan for 200-IS-1 to Ecology, 6/30/2011**

- Initiated scoping of the 200-IS-1 work plan to align with the Central Plateau Tentative Agreement.
- Preparing the Hexone Storage and Treatment Facility Closure Plan and SAP.

Schedule Status: Planning for the Central Plateau decision documents to achieve the Tentative Agreement milestones is underway.

Regulator Comments:

### **RCRA Units**

**Hexone TSD Closure Ecology Lead** (RL- Kevin Leary, CHPRC – Greg Berlin)

**M-037-01, Submit Revised Closure Plan to support TSD closure of the Hexone Storage and Treatment Facility (276-S-141/142) TSD unit, 12/30/2010**

- RL review completed, preparing to formally transmit to Ecology

Schedule Status: On Schedule.

Regulator Comments:

#### **Other TSD Closures**

**M-037-02, Submit Revised Closure Plans to support TSD closure for five (5) TSD Units: 207-A South Retention Basin, 216-B-29 Ditch, 216-A-36B Crib, 216-A-37-1 Crib, and 216-B-63 Trench, 06/30/2014**

**M-037-03, Submit Revised Closure Plans to support TSD closure for two (2) TSD Units: 216-B-3 Main Pond system, and 216-S-10 Pond and Ditch, 4/30/2012**

**M-037-10, Complete Unit-Specific Closure Requirements According To The Closure Plan(s) For seven (7) TSD Units: 207-A South Retention Basin, 216-A-29 Ditch, 216-A36B Crib, 216-A-37-1 Crib, 216-B-63 Trench, Hexone Storage and Treatment Facility (276-S-141/142), and 241-CX Tank system (241-CX-70/71/72), 9/30/2020**

**M-037-11, Complete unit-specific closure requirements for two (2) TSD Units; 216-B-3 Main and Pond system and 216-S-10 Pond and Ditch, 9/30/2016**

#### **CENTRAL PLATEAU OUTER AREA**

**200-CW-1, CW-3, OA-1 EPA Lead (RL – Greg Sinton, CHPRC – Ron Brunke)  
P-015-38B, Submit Revised FS Report & Revised PP for CW-1, -CW-3, and OA-1 to EPA, 4/30/2012**

- Transitioning the existing activities to align with the Tentative Agreement.
- Completed characterization of the 200-CW-1 Ponds and the Gable Pipeline.

Schedule Status: The West Lake Draft A SAP is planned to be submitted to regulators in June 2010. Planning for the Outer Area decision documents to achieve the Tentative Agreement milestones is underway.

Regulator Comments:

**200-SW-1 Ecology Lead** (RL: Kevin Leary, CHPRC – Ron Brunke)

- RL/Ecology Workshops to produce a mutually acceptable NRDWL/SWL closure/post-closure plan continue.

Schedule Status: A draft EA was issued for public comment May 13 – June 14, 2010. Submittal of a Rev 2 NRDWL/SWL Closure/Post-closure Plan to Ecology for formal approval is targeted for mid to late June. Public comment for the NRDWL/SWL Closure/Post-closure Plan Permit Modification is then targeted for mid to late July.

Regulator Comments:

Funding has been decreased and RL is proceeding with the graded approach. Ecology thinks that NRDWL/SWL should not be dropped from immediate and continuous funding because of the continuing threat due to the releases in the vadose zone and the groundwater that may become worse if the cover is not placed promptly. It will definitely cost more if another plug of releases reaches the groundwater that will necessitate pump and treat and other remedial actions. Therefore, Ecology does not want to see the project abandoned.

**Field Work**

**Rail Car Disposition EPA Lead** (RL: Frank Roddy, CHPRC – Tina Crane)

- Drafted an addendum to the 212-N/P/R facility EE/CA to incorporate rail car disposition scope. Agency involvement is anticipated to begin as early as the end of May 2010.

Schedule Status: On schedule

Regulator Comments:

**200-MG-1 EPA/Ecology Lead** (RL: Frank Roddy, CHPRC – Curt Walker)

- Field work is proceeding on 48 sites in the Outer Area.

Schedule Status: On schedule

Regulator Comments:

**200-BC Control Area (BCCA) Ecology Lead** (RL – Doug Chapin, CHPRC – Bo Wier)

- BCCA North Zone A: Approximately 6,700 tons were disposed of at ERDF the week of May 10, 2010, using seven super dump trucks in service (~109,700 tons over ~28 acres, cumulative).
- BCCA North Zone B: Approximately 848 acres in Zone B have been down posted as of the week of May 10, 2010.
- Migratory Birds: A field work mitigation plan is being developed for implementation to protect migratory birds habitat and nesting, and compliance with the MBTA. Field work in Zones A and B has been temporarily discontinued until this plan is implemented, which is planned by the end of week of May 17, 2010.
- BCCA South Zone C:
  - RL has contacted Ecology requesting a meeting with CHPRC and EPA to discuss a proposed regulatory approach (and rationale) for the contaminated soil cleanup (removal action) work that, along with what CERCLA and other regulatory documents, will be required for Zone C. The meeting has not yet been scheduled.
  - A cultural resources field survey was completed on March 21, 2010. Resolution of RL comments on the internal draft report and preparation of the final report are expected to be completed in early June 2010, to support the report's 30-day review by SHPO, the Tribes, and others, planned for mid-June 2010 through mid-July 2010.
  - An ecological field survey continues.

Schedule Status: On schedule

Regulator Comments:

**200-CW-3 EPA Lead** (RL: Frank Roddy, CHPRC – Bo Wier/Mike Hays)

Schedule Status: On schedule

Regulator Comments:

**West Lake** (developed under 200-UR-1) *Ecology Lead* (RL: Frank Roddy, CHPRC – Ron Brunke)

Schedule Status: On schedule

Regulator Comments:

**Multi-Increment Sampling Ecology Lead** (RL – Frank Roddy, CHPRC – Dave Chojnacki)

- Block 1 sampling is complete
- Block 2 sampling will be complete May 21, 2010

Regulator Comments:

**Risk Assessment**

**Central Plateau Ecological Risk Assessment EPA/Ecology Lead** (RL – Jim Hansen, CHPRC – John Lowe)

- Reviewing initial draft of the reformatted report (reformatted as a data compilation report)
- Inner and Outer Area Risk Assessments are being scoped

Schedule Status:

Regulator Comments:

**CENTRAL PLATEAU GROUNDWATER**

**200-ZP-1 Interim Action EPA Lead** (RL – Arlene Tortoso, CHPRC – Mark Byrnes)

- 10 of the 14 groundwater extraction wells are on line pumping water at a rate of approximately 206 gpm. Extraction well 299-W15-44 is offline as it is in the process of being replaced by new extraction well 299-W15-225. Extraction well 299-W15-36 will be kept offline due to very low flow rates. Extraction wells 299-W15-34 and 299-W15-765 are offline due to electrical problems that are currently being assessed.
- Extraction wells 299-W11-45 and 299-W11-46 are both running and are pumping at a combined rate of ~26 gpm to ETF. A reduced flow rate is required for the next month or two to allow ETF to drain one of their other basins which is full.
- Mobilized subcontractor to hookup of the new ZP-1 extraction well 299-W15-225 (EW-1).

Schedule Status: On schedule. The Decisional Draft 200-ZP-1 Remedial Design Report is current with RL for their review and comment.

Regulator Comments:

**200 West P&T EPA Lead** (RL – Arlen Tortoso, CHPRC – Mark Byrnes)

**P-016-124, Submit 200-ZP-1 Remedial Design Report, 8/31/2010**

**P-016-122, Begin Phase 1 Operation of 200W Pump and Treat System, 12/31/2011**

- Awarded General Contractor for installation of process buildings.
- Drafted the Decisional Draft Remedial Design Report. This report was written based on the 90% design that was approved by EPA.
- Completed drilling and sampling of nine permanent extraction/injection wells. Initiated drilling of three new FY10 extraction wells. Two of these wells have reached total depth and are currently being completed. The third well is at a depth of 269 feet.
- Received EPA comments on the Draft A Performance Monitoring Plan.
- Preparing two separate test plans to support laboratory testing of a variety of resins for uranium removal, as well as the testing of activated carbon as a less expensive way of removing Tc-99 from groundwater, as opposed to using resins.
- Issued the Operations and Maintenance Plan for the 200-West Area Groundwater Treatment Facility. EPA comments are due back on May 14, 2010.

Schedule Status: On schedule.

Regulator Comments:

**200-UP-1 EPA Lead** (RL – Naomi Bland, CHPRC – Curt Wittreich)

**P-015-17A, Submit a 200-UP-1 RI and FS Report and PP to EPA, 9/30/2010**

- Preparing the 200-UP-1 OU RI/FS Report and Proposed Plan. Met with EPA and Ecology on 3/18/2010 to present the scope and approach to preparing the 200-UP-1 Proposed Plan for the purpose of amending the 200-ZP-1 ROD. EPA concurred with the approach.
- Completed rehabilitation of both U Plant extraction wells to enhance pumping rate. Performance gains were modest. Ecology was briefed on the status of the U Plant Extraction Well Cleaning effort on May 17, 2010.

**S/SX Tank Farm Interim Action EPA/Ecology Lead (RL – John Morse, CHPRC – Curt Wittreich)**

**P-016-120, GW Treatment System <50 gpm for Tc-99 Plume at S/SX Tank Farm, 12/31/2011**

- Continued remedial design for the WMA S-SX extraction system to capture the Tc-99 plumes exceeding 9000 pCi/L. Three extraction wells with a total extraction rate of 80 gpm are planned. A regulator briefing on the status of the design is schedule for May 17, 2010. Freeze protection will likely be needed for above ground piping. A pipe-in-pipe design may be used as a method of insulation for above ground piping. Request regulator concurrence that no additional monitoring is required for pipe-in-pipe applications used for freeze protection other than what would apply for single walled pipe (e.g. routine walk downs). A decision on this is requested at the June meeting.

Schedule Status: On schedule

Regulator Comments:

**200-BP-5, PO-1 Ecology Lead (RL – John Morse, CHPRC – Curt Wittreich)**

**P-015-21A, Submit 200-BP-5 and 200-PO-1 FS Report and PP(s) to Ecology, 12/31/2012**

- Completed drilling/sampling and analyses of the K, L, and M wells
- Completed all depth discrete groundwater sampling at 14 wells.
- Preparing the 200-BP-5 RI Report
- A stakeholder meeting was held on April 20, 2010, to review and receive feedback on the final draft 200-BP-5 conceptual model report. The comment period for the final draft was extended to May 4, 2010 to facilitate additional stakeholder comment. The final report is currently being revised for issuance.
- The Draft A is expected to be transmitted to the regulators by late May.

Schedule Status: 200-BP-5 and 200-PO-1 FS Report and PP is on schedule.

Regulator Comments:

**200-BP-5 Ecology Lead** (RL – John Morse, CHPRC – Curt Wittreich)

**M-015-82A, Submit Treatability Test Plan as Amendment of 200-BP-5 WP,  
12/31/2010**

**M-015-82B, Initiate 200-BP-5 Aquifer Tests Within 6 months of TTP  
Approval, approval of TPP + 6 months**

- Preparation of the 200-BP-5 Treatability Test Plan continued.

Schedule Status: To be reviewed with EPA and Ecology.

Regulator Comments:

**GW Plumes EPA/Ecology Lead** (RL – John Morse)

**P-016-119-T01, Remedy in Place to Contain GW Plumes in 200 NPL Area,  
12/31/2020**

- Draft Annual Report provided to EPA and Ecology

Schedule Status: TBD

## Woolery, Wade C

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**From:** Cameron.Craig@epamail.epa.gov  
**Sent:** Thursday, May 06, 2010 3:05 PM  
**To:** Woolery, Wade C  
**Cc:** Weil, Stephen R; Toebe, Wayne E  
**Subject:** Re: Final Asbestos White Paper for U Ancillary Facilities

**Attachments:** U Ancillary Asbestos Final White Paper.pdf



U Ancillary Asbestos  
Final Whi...

Wade,

I have reviewed the attached document and agree with the approach outlined in it. I look forward to observing the D&D activities and looking over the monitoring set up.

Craig Cameron  
U.S. Environmental Protection Agency  
Hanford Project Office  
309 Bradley Blvd, Suite 115  
Richland, WA 99352  
Phone: 509 376-8665  
Fax: 509 376-2396  
E-mail: cameron.craig@epa.gov

**From:** "Woolery, Wade C" <Wade\_C\_Woolery@RL.gov>  
**To:** Craig Cameron/R10/USEPA/US@EPA  
**Cc:** "Weil, Stephen R" <Stephen\_R\_Weil@rl.gov>, "Toebe, Wayne E" <Wayne\_E\_Toebe@rl.gov>  
**Date:** 05/06/2010 02:19 PM  
**Subject:** Final Asbestos White Paper for U Ancillary Facilities

Craig,  
Per our meeting this afternoon, I am electronically transmitting a copy of the Asbestos White Paper for U Ancillary Facilities which was signed by the appropriate CHPRC industrial hygienist. After receipt of your approval, I will send the email correspondence along with the white paper and photographs to Correspondence Control and, later this month, the UMM. Thanks for your help.

W2  
Wade Woolery  
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Silence will save me from being wrong (and foolish), but it will also deprive me of the possibility of being right.  
- Igor Stravinsky

(See attached file: U Ancillary Asbestos Final White Paper.pdf)

## U ANCILLARY BUILDINGS 224-U, 224-UA and 203-UX DEMOLITION STRATEGY WHITE PAPER

April 2010

### Purpose

The purpose of this white paper is to address CH2M HILL Plateau Remediation Company's (CHPRC) proposed *Comprehensive Environmental Response, Compensation, and Liability Act of 1980* (CERCLA) removal action strategy for demolition of the 224-U, 224-UA, and 203-UX Buildings; specifically to validate an alternative disposition strategy for friable and nonfriable regulated asbestos-containing materials (RACMs) associated with the buildings.

As stated in *U Plant Ancillary Facilities Removal Action Work Plan, Phase II* (DOE/RL-2004-83, Revision 1):

“All friable and most nonfriable ACMs and presumed ACMs will be removed before demolition of structures in the area. ACM typically consists of insulation for piping, floor tiles, cement asbestos board, etc. Insulation on piping will be removed as Class I asbestos work, and nearly all other ACM will be removed as Class II (e.g., floor tiles and cement asbestos board). Asbestos work, air monitoring, and worker safety requirements will be performed in accordance with internal work requirements and processes for ACM removal and will meet all applicable state and federal regulations, specifically 40 CFR 300.150, *Worker Health and Safety*, 29 CFR 1910.1001, *Asbestos (General Industry)*, and 29 CFR 1926.1101, *Asbestos (Construction)*, as applicable.

If alternate removal methods for friable asbestos are developed, or if nonfriable asbestos is to be left in place during demolition, a certified industrial hygienist or licensed professional engineer qualified as a certified *Asbestos Hazard Emergency Response Act of 1986* (40 CFR 763) project designer will evaluate the work area, projected work practices, and engineering controls and certify in writing that the planned control method is adequate and that it is in compliance with all applicable state and federal regulations.”

This white paper supports demolition of 224-U, 224-UA, and 203-UX with the presence of inaccessible Class I RACM (e.g., asbestos containing thermal system insulation [TSI]) and Class II RACM (e.g., Transite material) within the facilities, while maintaining the protection of human health and the environment and compliance with all applicable state and federal regulations during this CERCLA removal action.

### Background

Components, structures and utility systems within the 224-U, 224-UA, and 203-UX Buildings were covered with RACM during the construction and operational life of the facilities. The RACM estimated to be in the buildings is approximately 19,670 kilograms (43,360 pounds). Pertinent applicable or relevant and appropriate requirements (ARARs) for asbestos abatement/removal were identified in *Engineering Evaluation/Cost Analysis for the U Plant Ancillary Facilities* (DOE/RL-2004-40) and the subsequent *Action Memorandum for the Non-Time-Critical Removal Action for the U Plant Ancillary Facilities* (DOE/RL-2004-67).

Abatement of accessible Class I RACM has been completed for the facilities as implemented through the aforementioned DOE/RL-2004-83.

There is approximately 100 linear feet (equating to approximately 1620 kilograms [3570 pounds]) of asbestos-containing TSI remaining in the 224-U/224UA Buildings that are not readily accessible for abatement (e.g., under equipment, behind welded metal panels, and on/behind intricate piping runs) including in areas with radiological contamination. This represents approximately 8 percent of the original estimated RACM inventory (i.e., 8 percent of the 19,670 kilograms [43,360 pounds]). In addition, there will be approximately 8,500 square feet of Class II RACM which will remain in place during the building demolitions.

The location, configuration and accessibility of the remaining asbestos containing TSI, make complete Class I asbestos abatement using standard industrial techniques, prior to demolition, impracticable. Manual removal of the TSI (or TSI components) poses a significant risk of worker injury, due to the necessity to remove large heavy equipment and building structural components to allow access to the TSI. Hot work techniques may be required to open up and/or remove potential radiological and asbestos containing equipment which could otherwise be handled in whole or with minor shearing before directly being placed into double lined waste containers for final disposition. Leaving the TSI in place would substantially lower the overall occupational safety and health risks for the project.

### **Regulatory Analysis**

Removal and disposal of asbestos and RACM are regulated under the *Clean Air Act* (40 CFR 61, Subpart M), Occupational Safety and Health Administration (OSHA) regulations (29 CFR 1910.1101), and Washington Administrative Code (WAC 296-62). These regulations provide for special precautions to prevent environmental releases or exposure to personnel of airborne emissions of asbestos fibers during removal actions. 40 CFR 61.150 identifies packaging requirements.

RACM at the 224-U, 224-UA, and 203-UX Buildings would be handled as potentially contaminated radioactive material. Therefore, the substantive Best Available Radionuclide Control Technology (BARCT) standard (WAC 246-247-040) would apply.

Normally, the removal of RACM from a facility is required prior to demolition. 40 CFR Subpart M, 61.145(c)(1) states:

“Remove all RACM from a facility being demolished or renovated before any activity begins that would break up, dislodge, or similarly disturb the material or preclude access to the material for subsequent removal.”

The removal of all RACM prior to demolition is preferred but cannot be done because major equipment and structural components block access, and would need to be removed before the asbestos would be accessible. As a result, alternatives are needed and available while still protecting human health and the environment.

The proposed RACM removal alternatives are consistent with the ARARs as identified in DOE/RL-2004-67 with additional considerations of controls under OSHA.

### **Proposed Asbestos Emission Controls**

The project will use all prudent means to abate/remove Class I RACM (e.g. TSI), within each structure prior to demolition. Afterwards, building demolition will commence using additional asbestos controls.

The National Emission Standard for Hazardous Air Pollutants (NESHAPS) regulatory emission standard for asbestos of "no visible emissions" will be met during facility demolition, while some inaccessible RACM (e.g. TSI) is left in place. The Project plans to use foggers and other wet-method emission control practices to reduce the potential for emissions of all types (dust, radiation, asbestos). In addition, additives such as Soil Sement® or other control agents will be used to further capture and reduce the potential for fibers to escape.

Additionally, the accessible RACM left in the buildings (both Class I and Class II) will be sprayed with a "lockdown" material and demarcated as to its nature so it can be easily identified.

The RACM at the 224-U, 224-UA, and 203-UX Buildings is to be handled as potentially contaminated radioactive material; the substantive BARCT standard adds additional requirements for airborne particulate control, over and above the RACM standard for airborne release. This further assures all reasonable and best methods will be used to minimize airborne releases.

### **Demolition Techniques and Methods**

CHPRC plans to demolish the buildings using heavy equipment methods, to minimize worker exposure to contaminants. The building structures will be demolished and packaged utilizing safe and controlled methods while mitigating any impacts to the environment with proven dust prevention and suppression techniques.

CHPRC will use heavy equipment equipped with a thumb and bucket (bucket and clamshell) or shear attachment, whenever possible, to raze the facilities. Buckets and clamshells allow the greater degree of control for remote operations. Shearing equipment, specifically, facilitates the segregation of demolition debris and offers the greatest degree of control during razing and demolition activities. When RACM is encountered during the demolition process, the surrounding material will be removed to the greatest extent possible, to allow clearer access to the RACM. Once accessible, the RACM will then be extracted and packaged as required, minimizing damage. If further size reduction is required, standard abatement activities will be performed in a designated area of the demolition site. Workers will be protected by using appropriate respiratory protection equipment while working in the demolition zone.

Class I and Class II RACM materials left in place will be identified in the field work document supporting building demolitions. The asbestos waste will be dispositioned in accordance with the Environmental Restoration Disposal Facility (ERDF) Waste Acceptance Criteria.

## Debris Handling

The following precautions will be taken when handling RACM materials:

- All structure debris handled and packaged as RACM will be dispositioned in a timely manner to minimize the amount of RACM exposed to the environment. RACM debris will be placed into double-lined ERDF containers and labeled "asbestos-containing material", per 40 CFR 61.150(a)(1)(iv) as soon as practical after removal of the material from the structure. Environmental monitoring, as described in DOE/RL-2004-83, will be operational during the demolition process.
- Facility components, which are covered, contain or are coated with RACM, that are taken out of the facility as units or in sections, will be:
  - Adequately wetted on areas of RACM that is exposed during cutting or disjoining operations; and
  - Carefully lowered to the floor and/or to ground level via a thumb and bucket attachment or other heavy equipment method working so as to minimize dropping, throwing, sliding, or otherwise damaging or disturbing the RACM.
  - Components that have Class I RACM integrally contained in the unit that need further size reduction will be staged in a predetermined area and will be abated using standard abatement practices.
- At the conclusion of each structure's debris removal, a visual inspection will be performed by a competent asbestos supervisor or inspector to validate the lack of asbestos contamination in the area. Top soil from the area may be removed, as needed, to meet these criteria.
- Exposed RACM (e.g. TSI) and any Class I asbestos-contaminated debris will be treated as asbestos-containing waste material and kept adequately wet at all times until packaged and disposed of in accordance with 40 CFR 61.150.
- Soil cement will be applied to the demolition site at the end of each shift.

These techniques implement, or are equivalent to:

- The asbestos emission controls 40 CFR Subpart M, 61.145(c) (specifically subparagraph (c) (2), (4) and (7)).
- The applicable waste management requirements of 40 CFR 61.150, "Standard for waste disposal for manufacturing, fabricating, demolition, renovation, and spraying operations"; Specifically paragraphs (a) (1) and (3) of that section.

In addition, trenching and berms will be utilized, as necessary, to contain water from the dust suppression operations during demolition. After demolition is completed, the berms and contaminated soil, down to a depth of at least 2 inches, will be removed. All removed soil will be managed as and disposed of as RACM.

#### **Air Emissions Abatement Methods**

The controls listed below will be used, during facility demolition, for the control of fugitive emissions of radionuclides, particulates, and asbestos. The majority of the RACM, approximately 18,050 kilograms [39,790 pounds] out of 19,670 kilograms [43,360 pounds] or 92%, will be abated using standard asbestos removal/abatement techniques. The asbestos emission controls and mitigation techniques that will be used to meet the NESHAPS regulatory emission standard for asbestos of "no visible emissions" include but are not limited to:

- Prior to the start of demolition an initial "fixative" coating will be applied to all surfaces of the TSI and Class II RACM, which are accessible or are anticipated to become accessible during demolition. Fixative application techniques may include spraying, fogging, misting, brushing on, pouring or other appropriate method, as necessary.
- Water will be applied to contaminated soil, debris and equipment, as needed, to minimize airborne contamination during the demolition activities to control fugitive emissions and dust (water application techniques may include spraying, fogging, misting, or some other method, as necessary).
- At the end of each shift a fixative such as Soil-Sement® will be applied to remaining debris and soil in the immediate demolition area. Field activities will temporarily cease and the area placed in a safe configuration if airborne contamination control measures are not expected to be adequate, based on site conditions (e.g., excessive wind).
- In all phases of the project, emissions to the air will be minimized through use of standard industry practices such as the application of water sprays and fixatives. These techniques are considered to be reasonable precautions to control fugitive emissions as required by the NESHAPS regulatory standards and have been successfully implemented during the demolition of several radiological contaminated structures at the Hanford Site.

#### **Asbestos Emission Monitoring**

The required personnel and/or area monitoring (radiological and asbestos) will be used to verify the effectiveness of the emission controls throughout the demolition by indicating whether particulate air releases are occurring. Personnel/Area asbestos air samples will be processed daily and the results returned to the workers and supervision in a timely manner to provide feedback on the effectiveness of asbestos/particulate emission control methods.

### **Past Application**

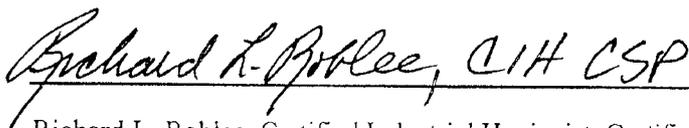
It should be noted that the aforementioned airborne hazard mitigation techniques such as the application of fixatives and general adequate wetting at various times during the demolition, accompanied by appropriate work stoppages (e.g., excessive wind), are proven demolition techniques very successful in the control of alpha particulate radiological releases during other Hanford demolition activities (233-S, 232-Z, and 241-Z Demolition Projects). The techniques have also been successful for the control of cement asbestos board during Building 384 Demolition Project, the 105-K East Basin Structure Demolition Project, and the 200-W Industrial Buildings Demolition Project.

These techniques, consistent with those identified in the recently approved DOE/RL-2010-33, *Removal Action Work Plan for Central Plateau General Decommissioning Activities*, would be expected to have similar success for the demolition of the 224-U, 224-UA, and 203-UX Buildings.

### **Conclusion**

The plan for demolishing the 224-U, 224-UA and 203-UX Buildings with a small fraction of the Class I material allowed to remain in inaccessible locations and Class II material in other locations meets the requirements in 40 CFR 300.415 for a CERCLA removal action, including attainment of ARARs for particulate airborne control to the extent practicable, consistent with 40 CFR 300.415(j). This plan will reduce the overall health and safety risks to the workers when compared to traditional asbestos removal/abatement methods. The asbestos emission controls that will be implemented throughout the demolition process will minimize airborne asbestos and radionuclide levels to meet the substantive regulatory standards, ensuring protection of human health and the environment.

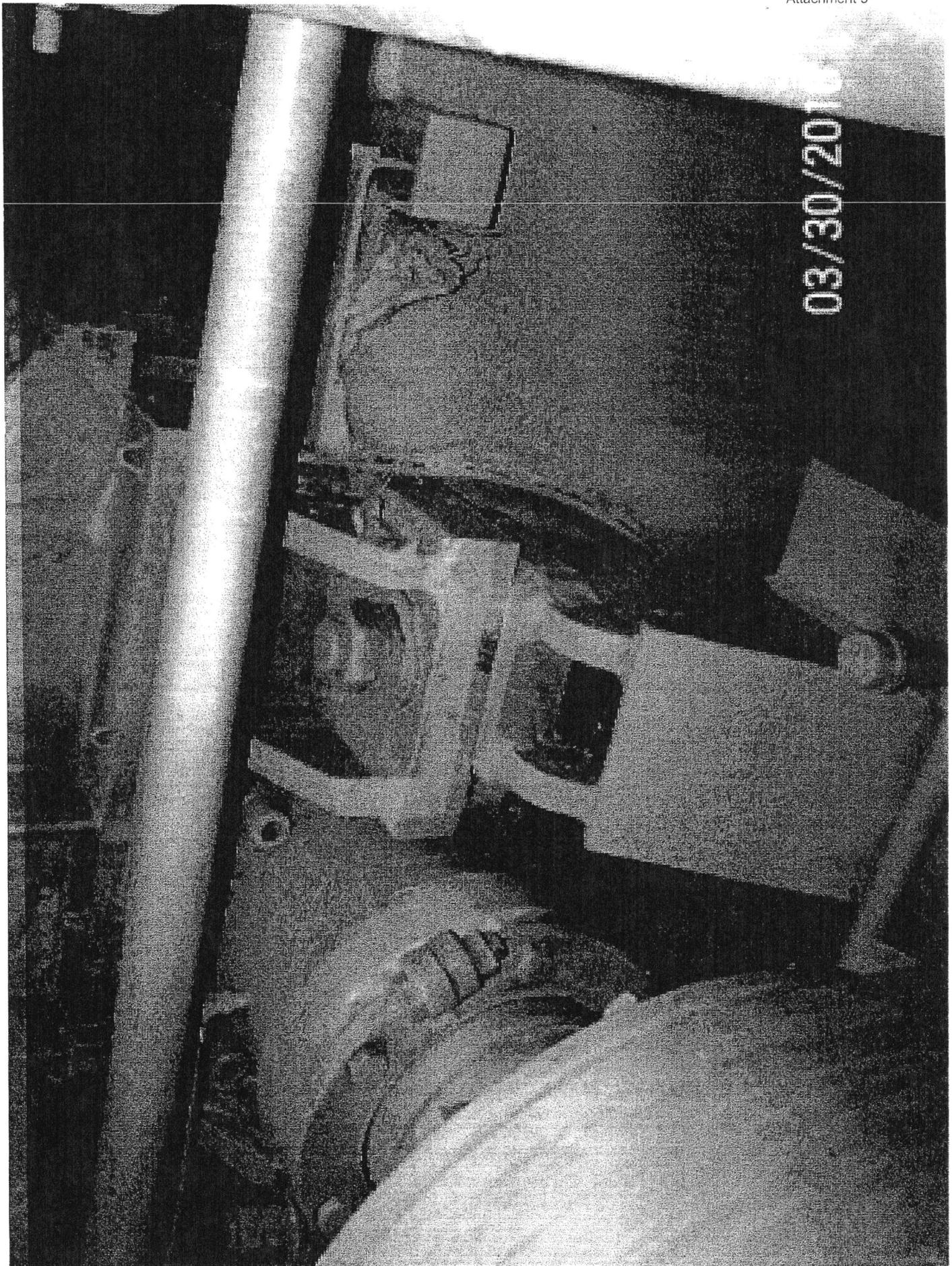
### **Concurrence:**

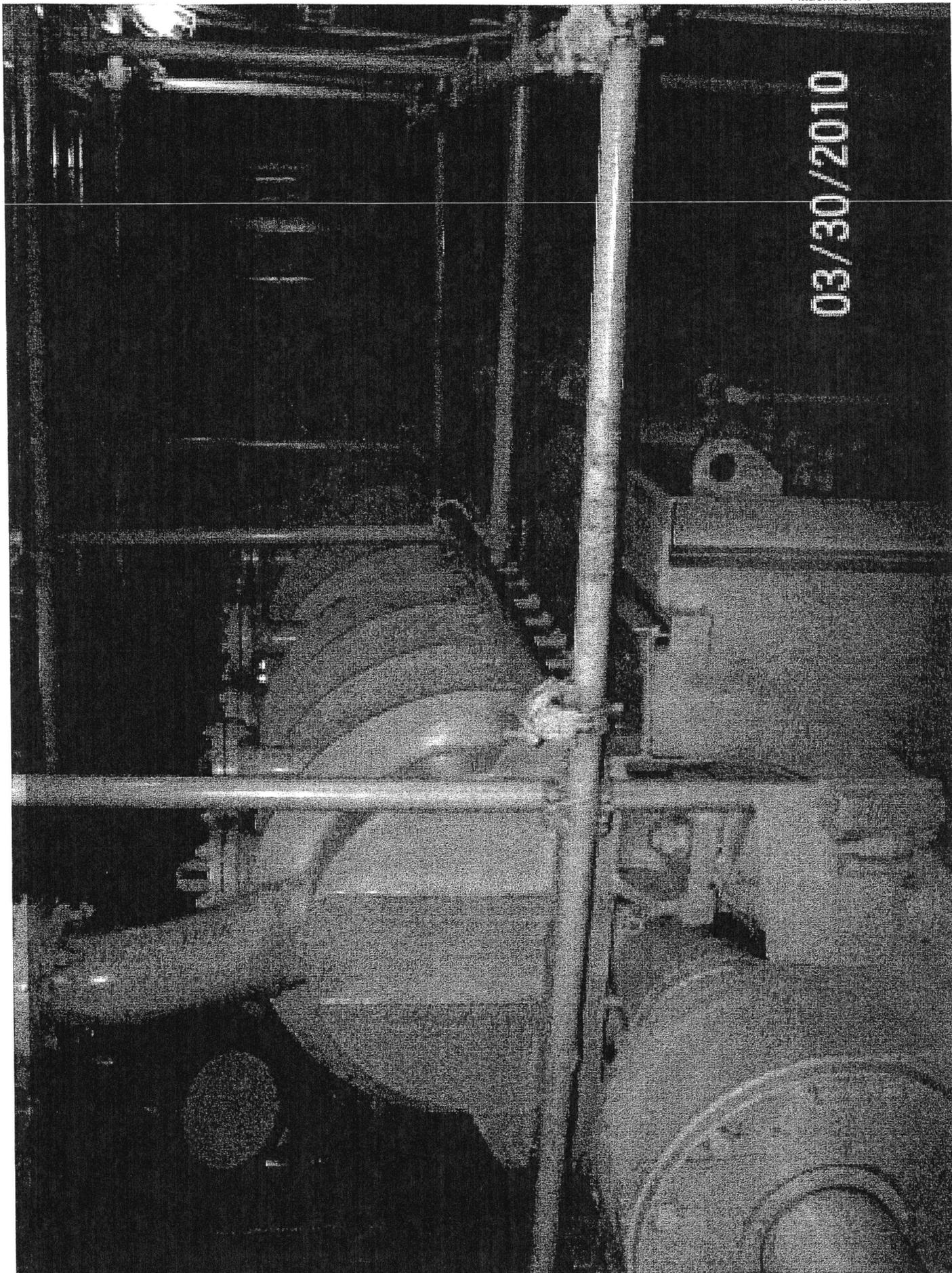


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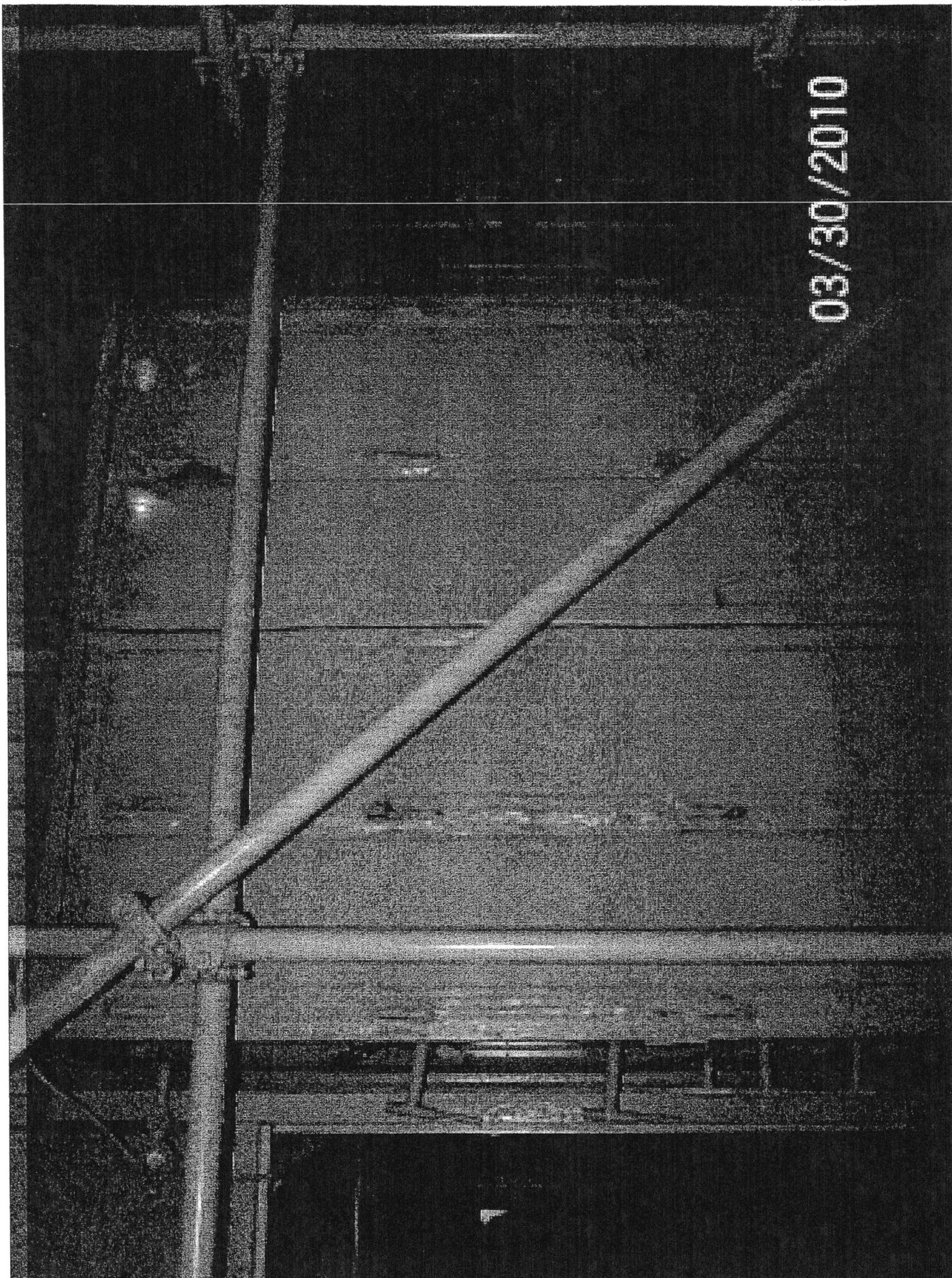
Richard L. Roblee, Certified Industrial Hygienist, Certified Safety Professional



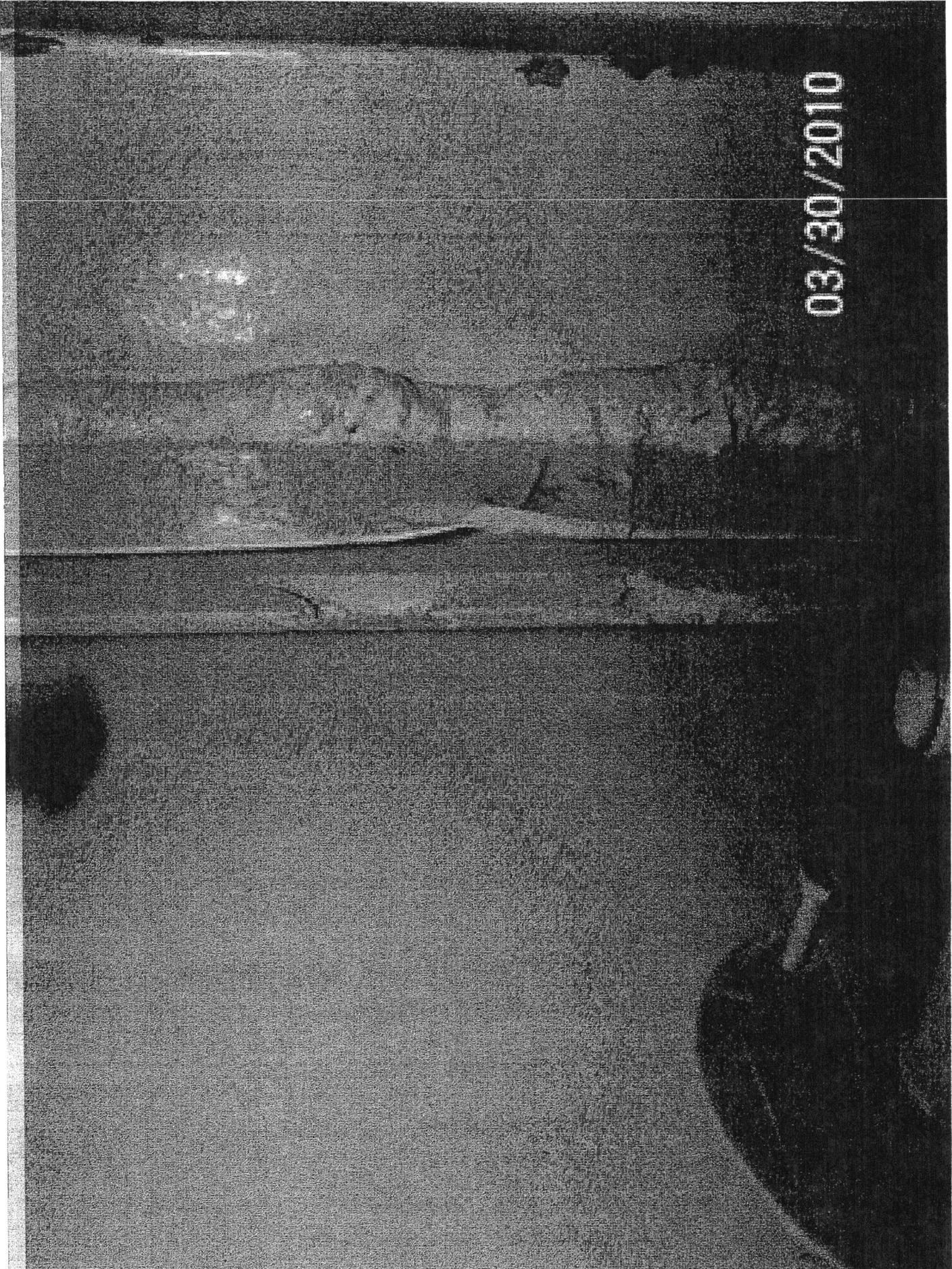


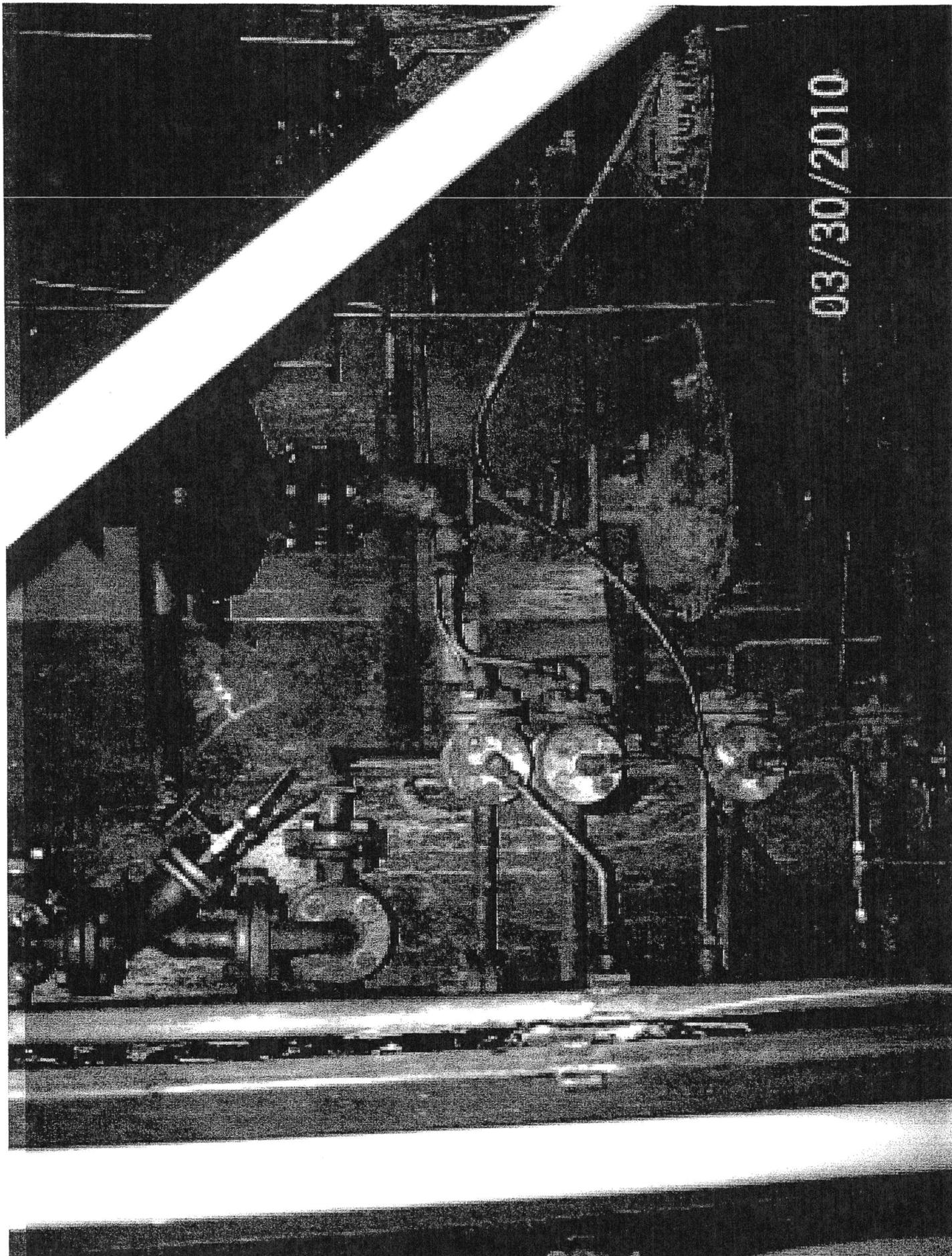


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