

**Index to the Administrative Record for
Collection/Treatment of Contaminated Groundwater and
Residual Waste in Subsurface Soil
Occidental Chemical Corporation, Montague Township, Michigan
MID 006 014 906**

<u>Document Number</u>	<u>Date</u>	<u>Description/Author</u>
OCC-001	3/24/93	Administrative Order entered for Occidental Chemical Corporation (OCC) facility located in Montague Township, Michigan.
OCC-002	4/26/01	OCC submittal of the ■Work Plan for the DNAPL Investigation Program•. The work plan describes the field methods and data review methods used to conduct the investigation of dense non-aqueous phase liquids (DNAPL) at the OCC facility.
OCC-003	6/5/01	Letter from U.S. EPA to OCC approving with modifications, the ■Work Plan for the DNAPL Investigation Program• submitted on April 26, 2001.
OCC-004	7/13/01	Letter from OCC to U.S. EPA providing responses to U.S. EPA's June 5, 2001, modifications of the ■Work Plan for the DNAPL Investigation Program•.
OCC-005	7/18/01	U.S. EPA's ■Final Decision and Response to Comments• for the OCC facility. The selected remedy in the Final Decision requires OCC to evaluate and implement feasible on-site collection/treatment options for contaminated groundwater and residual waste to expedite groundwater cleanup.

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OCC-006	11/8/01	OCC submittal of the ■Geophysical Services Report• that presents the pilot study performed to determine geophysical methods for detecting DNAPL at the OCC facility (only available at EPA Record Center).
OCC-007	11/13/01	OCC submittal of the final “Project Management Plan”. The plan provides the management strategy for evaluating and implementing corrective measures to expedite groundwater cleanup, as required in the July 18, 2001, Final Decision.
OCC-008	3/14/02	OCC submittal of the ■Phase I DNAPL Investigation Report•. The report provides the results of the geophysical investigation, reviews potential corrective measure technologies, and provides a schedule for Phase II of the investigation.
OCC-009	4/9/02	Letter from U.S. EPA to OCC approving with modifications, the ■Phase I DNAPL Investigation Report• submitted on March 14, 2002.
OCC-010	3/28/03	Letter from OCC to U.S. EPA requesting modification of the schedule for submitting the ■Phase II DNAPL Investigation Report•.

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OCC-011	4/2/03	Letter from U.S. EPA to OCC granting a 30 day time extension for submitting the ■Phase II DNAPL Investigation Report• as requested by OCC on March 28, 2003.
OCC-012	5/03	OCC submittal of the draft “Phase II DNAPL Investigation Report” (not available at Whitehall).
OCC-013	7/24/03	Letter from U.S. EPA to OCC approving with modifications, the draft ■Phase II DNAPL Investigation Report•. The report characterizes the extent of DNAPL and evaluates available technologies to treat DNAPL.
OCC-014	9/30/03	OCC submittal of the draft ■Bench/Pilot Study Workplan for DNAPL Removal•.
OCC-015	11/25/03	OCC submittal of the final ■Phase II DNAPL Investigation Report• addressing U.S. EPA’s modifications from July 24, 2003.
OCC-016	11/25/03	Letter from U.S. EPA to OCC approving with modifications, the draft ■Bench/Pilot Study Workplan for DNAPL Removal• submitted on September 30, 2003.

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OCC-017	2/26/04	OCC submittal of the ■2003 Annual Groundwater Monitoring Report•.
OCC-018	04/8/04	OCC submittal of the final ■Bench/Pilot Study Workplan for DNAPL Removal• addressing U.S. EPA's modifications from November 25, 2003.
OCC-019	4/22/04	Letter from U.S. EPA to OCC providing comments on the ■2003 Annual Groundwater Monitoring Report• submitted on February 26, 2004. Baseline data gathered from the plume interior monitoring wells will be used to assess the effectiveness of the future DNAPL removal program (see Section 5.5 of report).
OCC-020	5/20/04	Letter from OCC to U.S. EPA requesting modification of the schedule for submitting the ■Bench-Scale Testing Report• and ■Work Plan Addendum for Pilot-Scale Testing•.
OCC-021	6/1/04	Letter from U.S. EPA to OCC granting a 45 day time extension for submitting the ■Bench-Scale Testing Report• and ■Work Plan Addendum for Pilot-Scale Testing• as requested by OCC on May 20, 2004.
OCC-022	9/3/04	OCC submittal of the ■Bench Study Results for DNAPL Report• and ■Pre-Field and Pilot Test Work Plan to Address DNAPL•.

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OCC-023	11/29/04	Letter from U.S. EPA to OCC approving with modifications, the ■Bench Study Results for DNAPL Report• and ■Pre-Field and Pilot Test Work Plan to Address DNAPL• submitted on September 3, 2004.
OCC-024	1/18/05	Letter from OCC to U.S. EPA providing responses to U.S. EPA's November 29, 2004, modifications of the ■Bench Study Results for DNAPL Report• and ■Pre-Field and Pilot Test Work Plan to Address DNAPL•, including Addendum 1 for the report and work plan.
OCC-025	5/2/05	Letter from OCC to U.S. EPA requesting modification of the schedule for submitting the ■Pre-Field Report and Pilot Test Work Plan to Address DNAPL•.
OCC-026	5/11/05	Letter from U.S. EPA to OCC granting a 30 day time extension for submitting the ■Pre-Field Report and Pilot Test Work Plan• as requested by OCC on May 2, 2005.
OCC-027	6/28/05	OCC submittal of the ■Bench Test Results for Treatment of DNAPL• and the ■Pilot Test Work Plan to Treat DNAPL•.

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OCC-028	8/8/05	Letter from U.S. EPA to OCC approving with modifications, the ■Bench Test Results for Treatment of DNAPL• and the ■Pilot Test Work Plan to Treat DNAPL• submitted on June 28, 2005.
OCC-029	10/7/05	Letter from OCC to U.S. EPA submitting inventory sheets for underground injection wells associated with the DNAPL pilot test.
OCC-030	10/21/05	E-mail from Earth Tech (representing OCC) to U.S. EPA providing additional DNAPL bench test results.
OCC-031	11/2/05	Letter from U.S. EPA to OCC providing comments on the bench test results submitted on October 21, 2005, including pilot test recommendations.
OCC-032	3/17/06	Letter from OCC to U.S. EPA submitting the final ■Pilot Test Work Plan to Treat DNAPL• addressing U.S. EPA's modifications from August 8, 2005.
OCC-033	5/9/06	Letter from OCC to U.S. EPA providing responses to U.S. EPA's August 8, 2005, modifications of the ■Bench Test Results for Treatment of DNAPL•, including Appendices E and F.

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**Index to the Administrative Record
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OCC-034	6/19/06	OCC submittal of the ■Pilot Test to Treat DNAPL•. The report presents the results of the pilot test performed to evaluate the effectiveness of two methods for in situ treatment of DNAPL (CD only at Montague, not available at Whitehall).
OCC-035	7/11/06	E-mail from U.S. EPA to OCC providing partial draft comments on the ■Pilot Test to Treat DNAPL• report submitted on June 19, 2006.
OCC-036	8/14/06	Letter from OCC to U.S. EPA providing revisions to the June 19, 2006, ■Pilot Test to Treat `DNAPL• report and responses to EPA draft comments dated July 11, 2006 (not available at Whitehall).
OCC-037	9/7/06	Letter from U.S. EPA to OCC approving with modifications, the ■Pilot Test to Treat DNAPL• report (Revision 1) submitted on August 14, 2006.
OCC-038	10/10/06	Letter from OCC to U.S. EPA providing responses to EPA's modifications of the approved "Pilot Test to Treat DNAPL" report.

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**Index to the Administrative Record
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OCC-039	10/28/06	OCC submittal of the “ERD Pilot Test Work Plan”. The work plan presents a pilot test to evaluate the use of enhanced reductive dechlorination to treat chlorinated solvents in DNAPL source areas and portions of the dissolved-phase plume (not available at Whitehall).
OCC-040	1/2/07	E-mails from OCC to U.S. EPA providing three figures showing the revised pilot test layout for the monitoring wells and injection wells for the ERD pilot test, and the start date for field work.
OCC-041	1/4/07	Letter from U.S. EPA to OCC approving with modifications, the “ERD Pilot Test Work Plan”.
OCC-042	3/1/07	OCC submittal of the “Pilot Test Well Installation Tech Memo”.
OCC-043	3/14/07	OCC submittal of the revised “ERD Pilot Test Work Plan” addressing U.S. EPA’s January 4, 2007, Modifications (not available at Whitehall).
OCC-044	3/4/08	Agenda, hand outs, and notes from meeting between OCC and U.S. EPA to discuss the results of DNAPL bench and pilot studies and the use of institutional controls at the OCC facility.

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**Index to the Administrative Record
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OCC-045	3/4/08	E-mail from U.S. EPA to OCC discussing results of the March 4, 2008, meeting and providing an index to the current Administrative Record.
OCC-046	3/31/08	OCC submittal of the “ERD Pilot Test Report” and “DNAPL Treatment Evaluation Report” (CD only at Whitehall).
OCC-047	7/28/08	Letter from U.S. EPA to OCC disapproving the “ERD Pilot Test Report” and “DNAPL Treatment Evaluation Report”.
OCC-048	8/27/08	Agenda and notes from meeting between OCC and U.S. EPA to discuss the deficiencies in the “ERD Pilot Test Report” and “DNAPL Treatment Evaluation Report”.
OCC-049	9/1/08	Letter from OCC to U.S. EPA memorializing an agreed to time extension until October 15, 2008, for submitting the revised “ERD Pilot Test Report” and “DNAPL Treatment Evaluation Report”.
OCC-050	10/13/08	OCC submittal of the revised “ERD Pilot Test Report”, revised “DNAPL Treatment Evaluation Report”, including responses to EPA comments, and the “ISTD Treatment Evaluation Report” (CD only at Whitehall).

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OCC-051	12/4/08	Letter from U.S. EPA to OCC approving with modifications, the revised “ERD Pilot Test Report”, “DNAPL Treatment Evaluation Report” (Revision 1), and the “ISTD Treatment Evaluation Report”.
OCC-052	12//08	OCC submittal of the final revised “DNAPL Treatment Evaluation Report” and the “ISTD Treatment Evaluation Report”.
OCC-053	12/16/08	E-mail from U.S. EPA to OCC providing site-specific factors it should consider in it Technical Impracticability (TI) Evaluation.
OCC-054	1/16/09	OCC submittal of the “Work Plan to Perform Technical Impracticability (TI) Evaluation”.
OCC-055	2/5/09	EPA approval with modifications of the outline for a TI evaluation submitted by OCC on January 16, 2009.
OCC-056	2/26/09	OCC submittal of the ■2008 Annual Groundwater Monitoring Report•.
OCC-057	5/6/09	OCC submittal of the draft “Post-Implementation Technical Impracticability Evaluation for Groundwater Restoration” (TI Evaluation Report) (only available at EPA Record Center).

**Document
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OCC-058	7/2/09	EPA disapproval with comments of the TI Evaluation
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Report submitted on May 6, 2009.

OCC-059	7/21/09	Letter from OCC to EPA requesting a 45-day extension to submit the revised TI Evaluation Report.
OCC-060	7/27/09	Letter from EPA to OCC agreeing to the 45-day extension.
OCC-061	9/22/09	OCC submittal of the revised TI Evaluation Report to address EPA's comments from July 2, 2009 (CD only at Whitehall).

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