I. SITE IDENTIFICATION


4. Letter to Mr. Larry K. Owens, Virginia State Water Control Board, from J.C. Brown, Olin Corporation, re: Transmittal of a project scope for the planned field work on pond 5, 1/20/81. P. 100104-100107. The preliminary project scope is attached.


7. Letter to Dr. Kevin J. O'Leary, Olin Corporation, from Mr. R.V. Davis, Virginia State Water Control Board, re: Procession of the study of in-situ stabilization of Pond 5 and responses to a letter regarding site sampling work, 4/16/81. P. 100115-100117.


10. Letter to Mr. Larry K. Owens, Virginia State Water Control Board, from Mr. James C. Brown, Olin Corporation, re: Efforts to determine the cause of continued high mercury concentrations in fish, 7/30/81. P. 100123-100141. The following are attached:

   a) Table I, Biomonitoring Collections, North Fork Holston River;

   b) Figure 1, Mean Mercury Concentration of Fish Collected at Stations Below the Olin Plant Vicinity on the North Fork of the Holston River, 1970-1981;

   c) Figure 2, Summary of the Mercury Content of Fish Collected Below the Olin Plant Vicinity on the North Fork of the Holston River, 1970-1981;

   d) Table 2, Mean Mercury Concentration in Fish by Sample Site and Species Group;

   e) Table 3, Curve Fit Analysis for Fish Mercury Versus River Mile;

   f) Figure 3, Total Mercury in Algae in N.F. Holston River, September 25, 1980;

   g) Figure 4, Total Mercury in Algae in N.F. Holston River, November 5, 1980;

   h) Figure 5, Total Mercury in Algae in N.F. Holston River, December 3, 1980;
i) Figure 6, Total Mercury in Macroinvertebrates N.F. Holston River, November 5, 1980;

j) Figure 7, Total Mercury in Macroinvertebrates in N.F. Holston River, December 3, 1980;

k) Figure 8, Total Mercury in Macroinvertebrates in N.F. Holston River, May 5, 1981;

l) Figure 9, Total Mercury in Macroinvertebrates in N.F. Holston River, June 25, 1981;

m) Table 4, Distribution of Macroinvertebrates Downstream of Pond 6;

n) Table 5, Benthic Diversity, North Fork Holston River, August 25, 1980.


15. Letter to Dr. Kevin O'Leary, Olin Corporation, from Mr. Martin G. Ferguson, Jr., Virginia State Water Control Board, re: Questions to be addressed regarding in-situ chemical stabilization, 12/2/81. P. 100160-100161.


17. Letter to Mr. David S. Bailey, Virginia State Water Control Board, from Dr. K.J. O'Leary, Olin, re: Implementation of the western upland diversion ditch and implementation of in-situ treatment, 12/9/81. P. 100163-100168. A Graph of Effect of Western Diversion Ditch on Water Level, a Project Schedule for Pond 5 Diversion Structure, and a Sludge Stabilization Project Schedule are attached.


19. Letter to Dr. Kevin O'Leary, Olin Corporation, from Mr. R.V. Davis, Virginia State Water Control Board, re: Commitment and schedules for the implementation of mercury abatement projects, 12/21/81. P. 100171-100171.

20. Letter to Mr. Yener A. Soylemez, U.S. EPA, from Mr. I.H. Suffet, Drexel University, re: Transmittal of a review of an article from Environmental Science and Technology, 12/22/81. P. 100172-100176. The article is attached.


23. Letter to Mr. Martin G. Ferguson, Jr., Virginia State Water Control Board, from Mr. J.C. Brown, Olin Corporation, re: Transmittal of Olin's response to questions and a summary of mercury concentration data, 4/1/82. P. 100205-100237. The following are attached:

   a) a Response to Task Force Questions Regarding In-Situ Chemical Stabilization;

   b) in-situ stabilization data sampling results;

   c) a memorandum regarding the February 1981 Monthly Progress Report, dated April 8, 1981;

   d) a memorandum regarding the preliminary Report on Sludge Stabilization Chemistry, dated December 4, 1981;

   e) Table I, Concentrations of Metals Found in the Aqueous Phase of Saltville Pond No. 5;

   f) Table II, Concentrations of Anions Found in the Aqueous Phase of Saltville Pond No. 5;

   g) Table III, Effects of Retreatment on Mercury Concentrations;

25. Letter to Dr. Kevin J. O'Leary, Olin Corporation, from Mr. Martin G. Ferguson, Jr., Virginia State Water Control Board, re: Confirmation of discussions from an April 6 and 7, 1982 Task Force meeting, 4/82. P. 100243-100247. A letter dated April 22, 1982 regarding the meeting's resolutions is attached.


27. Letter to Mr. Martin G. Ferguson, Jr., Virginia State Water Control Board, from Mr. J.C. Brown, Olin Corporation, re: Results of in-situ monitoring of Pond 5, 5/6/82. P. 100293-100402. The following are attached:

a) Attachment A, Mercury Concentration Data from Test Sites 2A, 2B, and 2C;

b) Attachment B, Tensiometer and Well Elevation Data from Test Sites 2A, 2B, and 2C;

c) Attachment C, Thiosulfate Concentration Data from Test Sites 2A, 2B, and 2C;

d) Attachment D, Daily Weather Data;

e) Attachment E, Plot of Former Chlorine Plant Site Showing Well Locations;

f) Attachment F, Permeability Data from Former Chlorine Plant Site;

g) Attachment G, Mercury Concentration Data in Groundwater at Former Chlorine Plant Site;

h) Attachment H, Water Elevations in Wells at Former Chlorine Plant Site;

i) Attachment I, Copies of the Two References Requested by EPA.
28. Letter to Mr. Martin G. Ferguson, Jr., Virginia State Water Control Board, from Mr. J.C. Brown, Olin Corporation, re: Mercury concentration analysis, 5/17/82. P. 100403-100432. The following are attached:
   a) 19 diagrams of the North Fork Holston River showing River Water Analysis for Total Mercury (ppt), from June 21, 1981 to April 27, 1982;
   b) Attachment A, Mercury Loading in North Fork Holston River for Month of April, 1982, Based on Gold Film Water Analysis;
   c) Attachment B, Water Sampling for Gold Film Water Analysis;
   d) Attachment C, Gold Film Mercury Analysis;
   e) Figure 1, Flow system and tubing schematic for Hg analysis of liquids using the model 301;
   f) a Principal of Operation summary.


32. Letter to Mr. Yener Soylemez, U.S. EPA, from Mr. I.H. Suffet, Drexel University, re: Saltville site visit memorandum, 6/17/82. P. 100440-100441. The site visit memorandum dated June 15, 1982 is attached.


35. Memorandum to Mr. V.A. Carpano from Mr. H.M. Gildea, Virginia State Water Control Board, re: Stormwater diversion system for Pond 5, 7/19/82. P. 100454-100454.


37. Response Summary for Saltville Waste Disposal Ponds, 8/82. P. 100458-100459. The site plan is attached.

38. Note for the Record, re: A Special Order issued to Olin Corporation, prepared by Dr. I.H. Suffet, 9/7/82. P. 100460-100460.


41. Memorandum to the Honorable Betty J. Diener from Mr. R.V. Davis, Virginia State Water Control Board, re: Actions to be taken by the Olin task force concerning mercury pollution abatement, 10/22/82. P. 100507-100511.

42. Letter to Dr. Kevin J. O'Leary, Olin Corporation, from Mr. Martin G. Ferguson, Jr., Virginia State Water Control Board, re: Consent Special Order for river and diversion projects, 11/10/82. P. 100512-100519. The Special Order is attached.

43. Letter to Mr. Martin Ferguson, Virginia State Water Control Board, from Mr. J.C. Brown, Olin Corporation, re: Atmospheric mercury at Saltville, 1/17/83. P. 100520-100533. The following are attached:
   a) a memorandum regarding a meeting to discuss the muck pond, dated October 8, 1976;
   b) a list of people to attend the meeting;
   c) Summary of Meeting on Olin Muck Ponds;
   d) a memorandum regarding residual environmental problems, dated November 17, 1976;
   e) a report entitled "Ambient Mercury Sampling Results."


47. Note to the Record from Dr. I.H. Suffet, Drexel University, re: Meeting with Olin Corporation, 2/11/83. P. 100563-100564. A note to the record dated September 7, 1982 regarding the Special Order is attached.


49. Initial Evaluation of Baseline Data to Determine the Effect of the Diversion Around Muck Pond No. 5, prepared by Dr. I.H. Suffet, Drexel University, 3/11/83. P. 100567-100570. A revised version of the evaluation is attached.


56. Routing and transmittal slip to Mr. Mike Vaccaro, U.S. EPA, from Mr. Martin Ferguson, Virginia State Water Control Board, re: Slides shown at the task force meeting, 4/27/83. P. 100591-100591.


64. Report: Statistical Evaluation of Muck Pond #5 Outfall Data, prepared by Dr. J. Oler and Dr. I.H. Suffet, Drexel University, 6/14/83. P. 100614-100623.


70. Letter to Mr. Martin Ferguson, Virginia State Water Control Board, from Mr. J.C. Brown, Olin Corporation, re: Comments on planned disposal of sediment, 8/1/83. P. 100633-100635.


74. Memorandum to Mr. Thomas P. Eichler, U.S. EPA, from Mr. Stephen R. Wassersug, U.S. EPA, re: Background and site work information, 8/16/83. P. 100640-100641.


II. REMEDIAL ENFORCEMENT PLANNING


4. Letter to Dr. Kevin J. O'Leary, Olin Corporation, from Mr. Martin G. Ferguson, Jr., Virginia State Water Control Board, re: The signed and executed Consent Special Order for river and diversion projects, 11/10/82. P. 200013-200013.

5. Comments of Environmental Defense Fund on "A Special Order Issued to Olin Corporation," prepared by Virginia State Water Control Board, 11/11/82. P. 200014-200030. The following are attached:

   a) a memorandum regarding mercury pollution abatement, dated October 22, 1982;

   b) a letter regarding modifications to the Consent Special Order, dated September 29, 1983;

   c) a memorandum regarding a Consent Order amendment, dated August 29, 1983;

   d) a letter regarding approval of the Release Agreement, dated August 1, 1984;
e) a Release Agreement;

f) an information sheet regarding site status;

III. REMEDIAL RESPONSE PLANNING


7. Memorandum to file from Mr. Thomas C. Voltaggio, U.S. EPA, re: Telephone conversation with Mr. Bill Gilley concerning support for the RI/FS, 4/10/84. P. 300031-300031.


12. Letter to Mr. Harold Byer, U.S. EPA, from Dr. Kenneth G. Symms, Mr. William Wentworth, and Mr. Garth Glenn, NUS Corporation, re: Peer review comments, 9/14/84. P. 300057-300078. The following are attached:

   a) memorandum regarding a request for assistance from the Federal Investigations Team (FIT) Office, dated May 25, 1984;

   b) a Peer Review of OSWER Information Materials form;

   c) a summary of mercury;

   d) a report entitled "Water-Related Environmental Fate of 129 Priority Pollutants;"

   e) a Site Specific Guidance Document coversheet for "Methods for Chemical Analysis of Water and Wastes;"

   f) an description sheet entitled "Industrial Hygiene Instruments Model MV-2 Mercury Vapor Sniffer;"

   g) a Peer Review of OSWER Information Materials form.

14. Letter to Mr. Martin Ferguson, Virginia State Water Control Board, from Mr. Bevan W. Brown, Tennessee Valley Authority, re: Concerns that the Risk Assessment and Feasibility Study may duplicate assessments already performed, 9/27/84. P. 300144-300144.


29. Letter to Mr. Martin G. Ferguson, Jr., Virginia State Water Control Board, from Mr. J.C. Brown, Olin Corporation, re: Transmittal of semi-annual report of Pond 5 outfall daily monitoring data, 10/22/85. P. 300257-300262. The monitoring results are attached.


32. Letter to Mr. Ray Wattras, NUS Corporation, from Mr. Michael Jasinski, GCA Corporation, re: Issues relating to the Feasibility Study that may require changes to the Scope of Work, 1/22/86. P. 300270-300271.


34. Letter to Ms. Stephany Del Re', U.S. EPA, from Mr. Raymond P. Wattras and Mr. David E. MacIntyre, NUS Corporation, re: Transmittal of a Work Plan Modification for a revised Scope of Work, 2/3/86. P. 300274-300275. The Modification is attached.

35. Letter to Mr. J.C. Brown, Olin Corporation, from Mr. V. A. Carpano, Virginia State Water Control Board, re: Statistical analyses, 2/13/86. P. 300276-300277.


41. Letter to Mr. John Roland, Virginia State Water Control Board, from Mr. J.C. Brown, Olin Corporation, re: Results of long term monitoring of wells, 4/17/86. P. 300403-300408. Four tables of results are attached.

42. Letter to Dr. Neil Ram, GCA Corporation, from Mr. Raymond P. Wattras, NUS Corporation, re: Project schedule for completion of the draft Feasibility Study, 5/12/86. P. 300409-300410.


46. Memorandum to Ms. Stephanie [sic] Del Re', U.S. EPA, from Mr. John V. Roland, Virginia State Water Control Board, re: Mercury data for the North Fork Holston River, 9/4/86. P. 301148-301151. Figure 1, Total Mercury in Fish, 1982 vs 1986; Figure 2, Mercury in Fish - 1986; and Figure 3, Hg in Fish Station by Year, are attached.


48. Letter to Ms. Stephany Del Re', U.S. EPA, from Mr. J.C. Brown, Olin, re: Comments on the Feasibility Study, 6/10/87. P. 301154-301179. The following are attached:

- a) a letter regarding comments on the draft Work Plan, dated September 14, 1984;
- b) a letter regarding the need for additional hydrogeological work at Pond 5, dated November 15, 1985;
- c) a letter regarding the revised draft final Risk Assessment Report, dated August 29, 1986;
- d) Olin Corporation Comments on the EPA Risk Assessment;
- e) a letter regarding the draft final Feasibility Study, dated September 19, 1986.


50. Saltville Waste Pond No. 5 Remedial Alternatives information sheet, (undated). P. 301274-301280. The following are attached:

- a) a May 5, 1986 meeting agenda;
b) a site map;

c) a memorandum regarding mercury transport in the North Fork of the Holston River

d) two handwritten pages of fish consumption data.


54. Suggested Itinerary for Saltville, VA meeting, 6/12/85. P. 301289-301289.


V. COMMUNITY INVOLVEMENT/CONGRESSIONAL CORRESPONDENCE/IMAGERY


Data Summary Documents

1. Field Logs, 7/8/76 - 7/22/76.

2. Hydrogeologic Data and Result of Aquifer, 7/10/76-7/23/76.

3. Graphs of flow measures of chlorine plant, 7/24/76.

4. Diagrams of Saltville site, 7/14/76 - 9/7/76.


6. Mercury Concentration Data from Test Sites 2A, 2B and 2C, 8/25/81 - 4/30/82.

7. Data on in-situ stabilization, 5/26/82.

8. Suggestions for evaluation of Hg reduction monitoring program, 2/10/83.

9. Letter to Mr. Martin Ferguson, Virginia State Water Control Board, from Mr. J. C. Brown, Olin Corporation, re: Mercury concentration and flow data, Pond 5 outfall, 2/23/83. The data is attached.


11. Olin muck pond #5 mercury analysis data, 3/18/83.


13. Statistical evaluation of muck pond #5 outfall data, prepared by Drs. J. Oler and I.H. Suffet, Drexel University, 6/14/83.


16. Letter to Ms. Stephany Del Re', U.S. EPA, from Mr. Martin G. Ferguson, Jr., Virginia State Water Control Board, re: Transmittal of sample results, 5/15/84. The results are attached.

17. Letter to Mr. Martin G. Ferguson, Jr., Virginia State Water Control Board, from Mr. J.C. Brown, Olin Corporation, re: Mercury concentration and flow data, pond 5 outfall, 8/29/84. The data is attached.

18. Letter to Mr. Martin G. Ferguson, Jr., Virginia State Water Control Board, from Mr. J.C. Brown, Olin Corporation, re: QA results of pond 5 outfall mercury analysis, 9/12/84. The results are attached.

19. Memorandum to Mr. Jim Brown, Olin Corporation, from Mr. Jim Moser, Olin Corporation, re: Hg analysis from sample point #4, 11/26/84.