IN THE COURT OF COMMON PLEAS
WAYNE COUNTY, OHIO

State of Ohio Betty D. Montgomery Attorney General of Ohio Plaintiff, v. Teledyne, Inc. Ethicon Endo-Surgery Inc. United Titanium, Inc., and The Sandy Supply Company Christmas Run, Inc. Defendants.	: : : : : : : : : : : : : : : : : :	Case No. Judge

CONSENT ORDER

I. INTRODUCTION

WHEREAS, the State of Ohio ("Ohio" or "State") by its Attorney General, Betty D. Montgomery, at the written request of the Director of the Ohio Environmental Protection Agency, has filed a complaint in the above-captioned case against Teledyne Inc., Ethico Endo-Surgery Inc., United Titanium, Inc., Christmas Run Inc., and the Sandy Supply Company of Wooster ("Defendants") pursuant to Ohio Revised Code ("R.C.") Chapters 3734, 6111, 3767, and Common

Law Nuisance.

WHEREAS, the State of Ohio's complaint seeks remedies to investigate and abate alleged pollution and contamination at the Site, occupied by the Sandy Supply Company at 636 Kemrow Avenue, Wooster, Ohio and recovery of costs incurred by the State;

WHEREAS, the Defendants have agreed to enter into this Consent Order to resolve their differences with the State for the matters alleged in the Complaint; and

WHEREAS, Defendants do not admit the allegations set forth in the Complaint and deny any violation of or liability under any federal or state statute, regulation or common law; and

WHEREAS, Defendants have previously undertaken soil and groundwater investigations at the site to determine if any off-site release of volatile organic compounds, including TCE, are occurring which are impacting the City of Wooster's drinking water well field, and TCE was detected on site, but currently there does not appear to be an impact to the City of Wooster's drinking water well field; and

WHEREAS, the Ohio EPA has consulted with the United States Environmental Protection Agency and the City of Wooster, Ohio concerning this site and anticipates continuing consultation with that Agency and City concerning the work contemplated under this Consent Order;

NOW, THEREFORE, without adjudication or admission of any issue of fact or law, it is hereby ORDERED, ADJUDGED and DECREED as follows:

II. JURISDICTION

1. The Court has jurisdiction over the parties and the subject matter of this case. The Complaint states a cause of action upon which relief can be granted. Venue is proper in this Court.

III. DEFINITIONS

2. Unless otherwise stated, all terms used in this Order shall have the same meaning as used in R.C. Chapters 3734. and 6111. and the regulations adopted thereunder. In addition, the following terms are defined as follows:

A. "Additional Work Workplan" shall mean those documents which are to be submitted to the Ohio EPA by Defendants pursuant to Section IX of this Consent Order . Each workplan required to be submitted to Ohio EPA pursuant to Section IX of this Consent Order shall include a detailed description of the proposed activities, a time schedule for conducting those activities, and personnel and equipment needs. For any required workplan that includes sampling as an element, the workplan shall include a sampling plan together with a rationale for the sampling activities, locations, quantity and frequency of sampling, constituents for analysis, and quality control/quality assurance procedures.

B. "Contractor" means a qualified contractor retained by the Defendants pursuant to this Consent Order and any subcontractor, representative, agent, employee, or designee thereof.

C. "Day" means a calendar day unless expressly stated to be a business day. "Business day" shall mean a day other than a Saturday, Sunday, or State holiday. In computing any period of time under these Orders, where the last day would fall on a Saturday, Sunday, or State holiday, the period of time shall run until the close of the next business day.

D. "Defendants" means Teledyne, Inc., Ethicon Endo-Surgery, Inc., United Titanium, Inc., Christmas Run Inc. and the Sandy Supply Company of Wooster.

E. "Deliverables" means any document which must be submitted to the Ohio EPA under the SCIA SOW.

F. "Document" means any record, report, photograph, videotape, correspondence, computer disk or tape, recorded or retrievable information of any kind, including raw data, narrative reports and any and all documentary evidence, relating to treatment, storage, disposal and concerning the investigation and remediation of hazardous waste or industrial waste or pollutants or other waste at the Facility. "Document" shall be construed broadly to promote the effective sharing between Defendants and Ohio EPA

of information and views concerning the work to be done.

G. "Facility" or "Site" means the Sandy Supply Site located at 636 Kemrow Avenue, Wooster, Wayne County, Ohio, where treatment, storage, placement, or disposal of hazardous waste or industrial waste or other waste were conducted, including any other area contaminated or threatened to be contaminated by hazardous waste or other wastes migrating therefrom.

H. "Hazardous Substances" shall have the same meaning as defined in Section 101(14) of the Comprehensive Environmental Response, Compensation and Liability Act of 1980 (CERCLA) as amended, 42 U.S.C. §9601.

I. "Hazardous Waste" shall have the same meaning as contained in R.C. §3734.01(j), and shall include "hazardous constituents".

J. "Hazardous Constituents" shall have the same meaning as contained in Rule 3734-50-10(A) of the Ohio Administrative Code.

K. "NCP" means the National Oil and Hazardous Substances Pollution Contingency Plan, referred to in the Comprehensive Environmental Response, Compensation and Liability Action of 1980 ("CERCLA") as the National Contingency Plan, and codified at 40 C.F.R. Part 300 (1990) (as subsequently amended).

L. "The Ohio EPA" means the Ohio Environmental Protection Agency and its designated representatives.

M. "Oversight Costs" shall mean all direct and indirect costs of oversight incurred by Ohio in verifying the work to be performed by Defendants pursuant to this Consent Order, or otherwise implementing or

enforcing this Consent Order, including without limitation the costs of payroll, fringe, contractors, travel, oversight, samples, laboratory analysis, data management, safety and general equipment, supplies, general maintenance, reviewing or developing work plans, reports, or other items pursuant to this Consent Order.

N. "Response Costs" shall mean all costs incurred by Ohio pursuant to this Consent Order in verifying the Work, doing the Work or otherwise implementing or enforcing this Consent Order, including, but not limited to, payroll costs, contractor costs, travel costs, direct costs, indirect costs, legal and enforcement related costs, oversight costs, laboratory costs, the costs of reviewing or developing plans, reports, and other items.

O. "Source Control Interim Action" (SCIA) shall mean the development and implementation of the remedial action for the Site to control the source(s) of groundwater contamination resulting from the release of hazardous substances or hazardous waste from the Facility in accordance with state and federal environmental laws and with this Consent Order.

P. "SCIA Statement of Work" (SOW) shall mean the statement of work for the implementation of the Source Control Interim Action as set forth in Appendix C to this Consent Order.

Q. "Work" shall mean all activities Defendants are required to perform under this Consent Order.

R. "SCIA Workplan" shall mean the Workplan for the initiation of of the Source Control Interim Action as set forth in Appendix A to this Consent Order.

IV. CALCULATION OF TIME

3. Unless otherwise stated in this Consent Order, where this Consent Order requires actions to be taken within a specified period of time (e.g. "within thirty (30) days"), this time period shall begin the day after the Court's approval and entry of this Consent Order.

V. PERSONS BOUND AND OBJECTIVE OF PARTIES

4. The provisions of this Consent Order shall apply to and be binding upon Defendants, their successors in interest, assigns, and upon all persons, contractors, and consultants acting in concert or participation with them.

5. The Defendants shall provide a copy of this Consent Order to each contractor and consultant employed to perform any of the work itemized or referenced herein, and each general contractor shall provide a copy of this Consent Order to each of its subcontractors for such work.

6. No change in Corporate ownership or status of Defendants, including, without limitation any transfer of assets or real or personal property, shall in any way alter Defendants' obligations under this Consent Order. Defendants shall provide a copy of this Consent Order to any subsequent owner(s) or successor(s) prior to the transfer of the Company's ownership rights.

VI. OBJECTIVE OF PARTIES AND PURPOSE OF CONSENT ORDER

7. The mutual objective of the Ohio EPA and the Defendants, and the purpose of this Consent Order, is to control the source(s) of groundwater contamination resulting from the release of industrial waste, hazardous substances, hazardous wastes or other wastes from the Facility, and to implement such remedial measures as are required to address the risk to human health and the environment.

VII. DESIGNATION OF COORDINATORS

8. Within ten (10) days, Defendants shall designate a coordinator to oversee and implement the Work required by this Consent Order and to coordinate with the Ohio EPA coordinator. The Defendants may also designate an alternate coordinator. Within ten (10) days, Defendants shall inform the Ohio EPA in writing of their choice of coordinator or alternate. To the maximum extent practicable, communications between Defendants and the Ohio EPA concerning the activities performed under this Consent Order shall be through the coordinators.

9. For the pendency of this Consent Order, Defendants' designated coordinator or alternate shall be on-site or on-call during all hours of work to be performed pursuant to this Consent Order at the Site. The absence of the Ohio EPA Coordinator from the Site shall not be cause for stoppage of

work unless otherwise provided.

10. Defendants or the Ohio EPA may change their coordinator or alternate by notifying the other party at least five (5) days prior to the change, unless impractical, but in no event later than the actual day the change is made.

11. Without limiting any authority conferred by law on the Ohio EPA, the authority of the Ohio EPA coordinator includes, but is not limited to:

A. Taking samples and, in consultation with the Defendants' site coordinator, determining the type, quantity, and location of samples to be taken by Defendants pursuant to the approved workplan;

B. Observing, taking photographs or taking audio/video tape and making such other reports on the progress of the work as the Ohio EPA deems appropriate;

C. Directing that work stop whenever the Site Coordinator for the Ohio EPA determines that activities at the Facility may present an imminent and substantial danger to the public health, welfare or environment;

D. Reviewing records, files and documents relevant to this Order; and,

E. Assessing Defendants' compliance with this Consent Order;

F. Acting on behalf of Ohio EPA in implementing Section IX of this Consent Order.

VIII. PERMANENT INJUNCTION TO PERFORM SOURCE CONTROL INTERIM ACTION

12. Defendants are ordered and enjoined to implement a Source Control Interim Action (SCIA) pursuant to the terms of this Consent Order. All Work performed pursuant to this Consent Order shall be under the direction and supervision of a contractor with expertise in hazardous waste site remediation. Defendants shall notify the Ohio EPA in writing of the name of the supervising contractor and any subcontractor to be used in carrying out the terms of this Consent Order.

A. The SCIA Workplan is contained in Appendix A hereto, and is hereby incorporated as an enforceable part of this Consent Order. The work performed at the site shall not be inconsistent with the National Contingency Plan 40 C.F.R. Part 300, as amended ("NCP"), and shall comply with the Consent Order, the guidance documents, and the SCIA SOW, included respectively in Appendices B and C attached hereto and incorporated fully herein, and R.C. Chapters 3734 and 6111. If the Ohio EPA, in consultation with Defendants, determines that any additional or revised guidance documents affect the Work to be performed in implementing the SCIA Workplan, Defendants shall modify the SCIA Workplan and other affected documents accordingly.

B. Defendants are ordered and enjoined to implement the Work detailed in the SCIA SOW in accordance with the schedule contained therein. Defendants shall submit all plans, reports, or other deliverables required under the SCIA SOW, in accordance with the approved schedule, for review and approval pursuant to Section IX. REVIEW OF SUBMITTALS of this Consent Order.

IX. ADDITIONAL WORK

13. The Ohio EPA or Defendants may determine that in addition to the tasks defined in the SCIA SOW and other requirements of this Consent Order, additional Work may be necessary to supplement the work detailed in the attached SCIA Work Plan and in order to accomplish the purposes set forth in Section VI of this Consent Order.

14. If Defendants determine that additional Work is needed, then prior to initiation of such work, Defendants must comply with the requirements set forth in paragraphs 17 and 18 below.

15. The Ohio EPA may only require Defendants to perform additional Work if it falls within the

following categories:

a. Additional sampling, parameters, and/or relocation of monitoring wells, which are related to areas of contamination contemplated within the attached SCIA Work Plan, may be required to be performed, based upon field results and visual observations made during SCIA implementation;

b. Determining the depth of bedrock at additional locations which are not indicated in the attached SCIA Work Plan;

c. Modification of the sampling plan to account for the deletion of samples, monitoring well location(s), piezometers, and soil borings as appropriate and in accordance with the attached SCIA Work Plan;

d. Modifications to removal and/or treatment processes of areas of contamination contemplated within the attached SCIA Work Plan, which would be consistent with the objectives of the of attached SCIA Work Plan, that become necessary based upon additional information generated during the implementation of the SCIA.

16. The Ohio EPA must provide notice to the Defendants that they believe additional Work is necessary and that the additional Work required falls within the categories set forth in paragraph 14. If the Defendants and the Ohio EPA are unable to reach agreement that the additional Work described by the Ohio EPA in their notice falls within the categories listed in paragraph 14, then both parties reserve their rights to seek judicial review of the dispute pursuant to Section XIX.

17. Within ten (10) days after it has been determined by the Ohio EPA or the Defendants that additional Work is to be performed, Defendants shall prepare and submit an "Additional Work Workplan" for the Ohio EPA's review and approval for the performance of the additional Work. Defendants shall develop the "Additional Work Workplan" in conformance with the SCIA Workplan (Appendix A), the list of guidance documents (Appendix B), and the SCIA SOW (Appendix C), and

submit it for review and approval pursuant to Section XI. REVIEW OF SUBMITTALS. Upon approval of any "Additional Work Workplan" by the Ohio EPA, Defendants shall implement the "Additional Work Workplan" in accordance with the schedules contained therein.

18. In the event that additional Work is necessary for any task described in this Consent Order, the deadline for completing such task(s) shall be extended by the amount of time required to perform the additional Work required, including the period for time required to plan and/or obtain approval from the Ohio EPA for the performance of such Work.

X. DEFENDANTS' PROGRESS REPORTS

19. Defendants shall provide monthly progress reports to the Ohio EPA Site Coordinator covering the work or activities carried out by the Defendants during the previous calendar month. These monthly progress reports shall be submitted to the Ohio EPA on or before the tenth (10) day of each month. These monthly progress reports shall include, at a minimum, the following information:

A. Identify the Site;

B. A description and estimate of the percentage of interim action tasks completed;

C. Summaries of all relevant findings, including, but not limited to, water level measurements, flow maps, sampling results, etc.,

D. Once implemented, an evaluation of the current effectiveness of all interim action systems in achieving the goals of this Consent Order;

E. Summaries of all changes made in the interim actions;

F. Summaries of all problems or potential problems encountered;

G. All actions being taken to rectify problems to be addressed by the SCIA Workplan

or the Additional Work Workplan occurring at the Site;

H. Changes in key personnel involved at the Site or ownership/lease transfers at the Site;

I. Summaries of the projected Work for the next reporting period; and,

J. Copies of daily reports, inspection reports, tabulated monitoring and laboratory data, effluent monitoring data, QA/QC report, geologic logs, monitoring well construction diagrams, etc, generated during the reporting period.

XI. REVIEW OF SUBMITTALS

20. The Ohio EPA agrees to review and approve or disapprove any Additional Work Workplan, report, study or other document that Defendants are required under this Consent Order to submit to the Ohio EPA.

21. In the event that Defendants are notified that a document is disapproved in whole or in part, the Ohio EPA agrees to include a statement in the notification as to the changes, deletion or additions that must be made to the document prior to approval, and an explanation as to why such changes, deletions or additions are necessary.

22. If the Ohio EPA disapproves part or all of any submittal, or requires modification of a submittal, the Defendants shall resubmit the disapproved or modified portion to the Ohio EPA, after incorporating all written comments that the Ohio EPA may have provided to Defendants, within fourteen (14) days of receipt of the Ohio EPA's disapproval letter or requirement to modify.

23. Except for minor field changes agreed to by the Defendants and the Ohio EPA coordinators for the parties, no modification or additional changes shall be made by Defendants to any document, SCIA Workplan, Additional Work Workplan, report or study approved by the Ohio EPA without prior written notification to and written approval by the Ohio EPA. The notification required by this

paragraph shall set forth the nature of the reasons for the desired modification or additional changes. Upon agreement by the Ohio EPA and Defendants' coordinators for minor field changes, the Ohio EPA coordinator shall document such an agreement by letter to the Defendant's coordinator setting forth the nature and extent of the changes to be made.

XII. INSPECTIONS AND ACCESS

24. The Ohio EPA, its employees and agents shall have full access to the Facility at all reasonable times, without the need for a warrant, as may be necessary to achieve the purpose of this Consent Order as specified under Section VI of this Consent Order. This paragraph shall not be construed to eliminate or restrict any State right to seek access to Defendants' property which it may otherwise have under Federal or State law.

25. To the extent that activities required by this Consent Order must be carried out on property other than Defendants' property, Defendants shall use their best efforts to secure from such persons access for Defendants and the Ohio EPA as necessary to effectuate this Consent Order. Defendants shall provide the Ohio EPA with copies of any access agreement or other document providing for access. In the event that Defendants are unable to obtain such access rights, Defendants shall promptly notify the Court and the Ohio EPA of its inability to reach such agreement and Defendants' efforts to obtain such agreements. Within seven (7) days of Defendants' inability to obtain access, Defendants shall seek an Order from this Court granting access to those persons identified in this paragraph. The Ohio EPA may assist Defendants in obtaining such access rights.

XIII. SAMPLING AND DOCUMENT AVAILABILITY AND RETENTION

26. Defendants shall make available to the Ohio EPA the results of all sampling, tests or other data, including raw data, generated by Defendants or on its behalf in relation to this Consent Order at the Facility. Defendants shall allow split or duplicate samples to be taken by the Ohio EPA of all samples collected by Defendants. Accordingly, Defendants shall notify the Ohio EPA Coordinator not less than seven (7) days in advance of any sample collection called for under this Consent Order.

27. Defendants shall preserve, during the pendency of this Consent Order, and for a minimum of ten (10) years after completion of work pursuant to this Consent Order, copies of all records and documents within its possession or that of its divisions, employees, agents, accounts, contractors or attorneys which relate to work performed under this Consent Order. After the ten (10) year period, Defendants shall notify the Ohio EPA within thirty (30) days prior to the destruction of any such documents required to be kept pursuant to this Section. Upon request by the Ohio EPA, Defendants shall make available to the Ohio EPA such records or copies of any such records.

28. Defendants shall submit all non-privileged or non-confidential raw data and all original reports of analytical procedures and results to the Ohio EPA within twenty (20) days of receipt of written request.

29. Defendants shall submit to the Ohio EPA within five (5) days after Defendants' receipt, any interpretive reports and written explanations concerning such raw data and original laboratory reports. Draft and final interpretive reports or explanations must be immediately submitted as generated.

30. Should Defendants following submission of any report or document pursuant to this Consent Order, discover any error in any report or raw data, Defendants shall within twenty (20) days of

discovery, notify the Ohio EPA of such discovery and provide to the Ohio EPA the basis for the error, and the corrected information.

31. No documents or information gathered or generated by Defendants their agents, employees, representatives or contractors performing any activity required by this Consent Order constitutes work product. This Section shall not constitute a waiver of any privilege by Defendants and nothing herein shall prevent Defendants from having privileged communications with their attorneys nor prevent their attorneys from creating protectable work product material.

XIV. DEED NOTICE LAND USE AND CONVEYANCE OF TITLE

32. No portion of the Facility shall be used in any manner which could adversely affect the installation, operation, and/or integrity of any system installed pursuant to this Consent Order. Defendant Christmas Run Inc., as owner and landlord of the property which consists of the Site, shall not convey any title, easement or other interest without a provision for continued operation and maintenance of any system installed pursuant to Section VIII of this Consent Order. Before transferring any interest in the property, Defendant Christmas Run Inc. shall assure that an appropriate notice shall be put in the deed as to the condition of the property in accordance with CERCLA Section 120(h), 42 U.S.C. §9620(h); the notice shall first be approved by the Ohio EPA. Defendants shall notify the Ohio EPA by certified mail at least ninety (90) days prior to any conveyance or an intent to convey any interest in the Facility or Site.

XV. NOTICE

33. Any progress reports, other submissions, notifications and documents, including correspondence, submitted pursuant to this Consent Order shall be sent by certified mail to the following:

Ohio EPA (1 copy)
P.O. Box 1049
Columbus, Ohio 43266-0149
Attn: Technical and Programs
Division of Emergency and Remedial Response

Ohio EPA (4 copies)
Northeast District Office
Twinsburg, Ohio 44087
Attn: Sandy Supply Site Coordinator or his or her successor.

All correspondence to Defendants will be directed to the following:

_____

_____

_____

Defendants or the Ohio EPA may change the person to whom notice shall be sent by providing written notification of the change to the other party.

XVI. PAYMENTS AND REIMBURSEMENTS OF COSTS

34. Past Costs :

Within forty-five (45) days, Defendants shall pay a total of $ 27,724.43 as reimbursement for the remaining unpaid past response costs incurred by the State through April 19, 1996. This amount shall be paid to the Ohio EPA by delivering a check in this amount made to the order of "Treasurer

of the State of Ohio" and forwarded to Patricia Campbell, or her successor, Fiscal Officer, Division of Emergency and Remedial Response, P.O. Box 1049, 1800 WaterMark Drive, Columbus, Ohio 43266-0149. Defendants shall send a copy of the transmittal letter and check to: the Assistant Attorney General representing the State in this case. Copies of all transmittal letters and checks shall also be delivered to the Ohio EPA Project Coordinator as identified in Paragraph 33.

XVII. FUTURE RESPONSE COSTS

35. Defendants shall reimburse the State of Ohio for all response costs incurred by Ohio from April 20, 1996 continuing through the termination of the Order. The Ohio EPA will submit an itemized statement of Ohio's Response Costs to Defendants on a yearly basis. Defendants shall pay the Ohio EPA's Response Costs for the previous year, subject to the Dispute Resolution clause, within thirty (30) days of receipt of such itemized statement. The Dispute Resolution Section of this Consent Order shall apply only to disputes over the accuracy of the State of Ohio's request for reimbursement. Failure to include Response Costs in a yearly statement does not preclude submission of such costs in a subsequent yearly statement. In the event of a dispute over Response Costs, Defendants shall not be required to pay the contested amount of Response Costs until the dispute is resolved.

36. Defendants shall remit payments pursuant to this Section by making payment to "Treasurer, State of Ohio" and forwarding it to Edith Long or her successor, at the above-listed WaterMark Drive address. Defendants shall send a copy of the check and transmittal letter to the Assistant Attorney General.

XVIII. RESOLUTION OF INCONSISTENCIES

37. Should Defendants identify any inconsistency among any of the laws, rules, regulations, guidance or orders which will affect any of the work required by this Consent Order, Defendants shall provide written identification to the Ohio EPA of each such inconsistency, a description of its effect on the work to be performed, and Defendant's recommendation, along with the rationale for each recommendation, as to which requirement should be followed. Defendants shall implement the affected work based upon the Ohio EPA's direction in resolving any such inconsistencies, except in the case of inconsistencies between federal and state requirements, in which case Defendants and Ohio will attempt to resolve the dispute pursuant to the dispute resolution procedures in Section XIX. If Defendants and the Ohio EPA are unable to reach an agreement, then both reserve their rights to see judicial review of the dispute pursuant to Section XIX.

XIX. DISPUTE RESOLUTION

38. The dispute resolution process of Section X shall apply only to Section IX Additional Work, Section XI Review of Submittals, and Section XVII Future Response Costs (only to the extent indicated within Section XVII).

39. The Site Coordinators shall, whenever possible, operate by consensus. In the event that a disagreement exists about the adequacy or disapproval of any Additional Work Workplan, deliverable or any report, or disagreement about the conduct of the work performed under this Consent Order or the SCIA SOW, or modified or additional work or schedules required under this Consent Order, the Site Coordinators shall have seven (7) days from the date the dispute arises to negotiate in good faith in an attempt to resolve the differences. The dispute arises when either the

Ohio EPA Site Coordinator provides a brief written notice of dispute to the Defendants' Site Coordinator, or vice-versa. This seven (7) day period may be extended by mutual agreement of the parties, up to an additional seven (7) days.

40. In the event that the Site Coordinators are unable to reach consensus on the dispute, then each Site Coordinator shall reduce his or her position to writing within seven (7) days of the end of the good faith negotiations referenced in the preceding paragraph. Those written positions shall be immediately exchanged by the Site Coordinators. Following the exchange of written positions, the parties shall have an additional seven (7) days to resolve their dispute. If the Ohio EPA concurs with the position of the Defendants, the Ohio EPA shall petition this Court for modification of the Consent Order to include any necessary extensions of time or variances of required work.

41. If the Ohio EPA does not concur with the position of the Defendants, the Ohio EPA Site Coordinator shall notify Defendants in writing. Upon receipt of such written notice, Defendants shall have seven (7) days to forward a request for resolution of the dispute, along with a written statement of the dispute, to a Section Manager of the Division of Emergency Response and Remediation ("DERR"). The statement of dispute shall be limited to a concise presentation of the Defendants' position on the dispute. The Section Manager of DERR, or his/her designee will resolve the dispute based upon and consistent with this Consent Order, the SCIA SOW, and State law including R.C. Chapters 6111 and 3734, and the regulations promulgated thereunder, the National Contingency Plan, 40 CFR Part 300, and other appropriate state and federal laws, and issue his/her decision within fourteen (14) days of the Defendants' request for dispute resolution.

42. The pendency of dispute resolution set forth in this Section shall not affect the time period for completion of work to be performed under this Consent Order, unless otherwise provided, except

that upon written mutual agreement of the parties, any time may be extended as appropriate under the circumstances. Elements of work not affected by the dispute will be completed in accordance with the schedules contained in the SCIA Workplan and the other deliverables under the SCIA SOW.

43. If Defendants and the Ohio EPA do not agree on a resolution of the dispute within twenty-one (21) days, either party may institute an action in this Court to resolve the dispute under this Consent Order. In this court proceeding, Defendants shall have the burden of demonstrating by a preponderance of the evidence that the decision by the Ohio EPA is unlawful and unreasonable. Without limiting the ability of the Defendant(s) to make other arguments, the petitioning Defendant(s) may seek to show that the Section Manager of DERR's resolution of the dispute was unlawful or unreasonable on the ground that such resolution was not in accordance with this Consent Order.

44. If either the Ohio EPA or Defendants believe that a dispute is not a good faith dispute, or that a delay would pose or increase a threat of harm to the public or the environment, either party may petition the Court for relief without following the dispute resolution procedures of Paragraphs 39 through 43.

45. Within thirty (30) days of resolution of any dispute, Defendants shall incorporate the resolution and final determination into the SCIA Workplan, Additional Work Workplan(s), or other deliverable under the SCIA SOW, schedule or procedures and proceed to implement this Consent Order according to the amended SCIA Workplan, Additional Work Workplan(s), schedule, procedures or other deliverables under the SCIA SOW.

46. Unless otherwise expressly provided for in this Consent Order, the dispute resolution

procedures of Section XIX shall be the exclusive mechanism to resolve disputes arising under or with respect to this Consent Order. However, the procedures set forth in this Section shall not apply to actions by the State of Ohio to enforce obligations of Defendants that have not been disputed in accordance with this Section.

47. In any dispute subject to dispute resolution, the parties may, by written agreement, modify the procedures of Paragraphs 39 through 43 above.

XX. SATISFACTION OF LAWSUIT AND RESERVATION OF RIGHTS

48. Except as provided otherwise in this Consent Order, compliance with the terms of this Consent Order shall constitute full satisfaction of any civil liability of Defendants, their predecessors, successors, assignees, directors, officers, agents and representatives, for the claims alleged in the State's Complaint arising prior to the date of entry of this Consent Order.

49. This Consent Order shall not be construed to limit the authority of the State to seek relief for claims or conditions not alleged in the Complaint. This Consent Order shall not bar the State from bringing any action against Defendants for any violations or conditions which occur after the entry date of this Consent Order, and by entering into this Consent Order the Defendants do not waive any rights, claims or defenses which they may have in any such action or amongst themselves or against any others not a party to this action.

50. Nothing in this Consent Order shall be construed to limit the authority of the Ohio EPA to undertake any action against any entity, including Defendants, to eliminate or mitigate conditions which may present a threat to the public health, welfare or environment. Nothing in this Consent Order shall be construed to limit the authority of the Ohio EPA to seek relief for claims for damages

to natural resources, and by entering into this Consent Order the Defendants do not waive any rights, claims or defenses which they may have in any such action.

51. Nothing in this Consent Order shall relieve Defendants of their obligation to comply with applicable federal, state or local statutes, regulations, or ordinances.

52. In the event of any noncompliance with the terms of this Consent Order, the Ohio EPA reserves the right to conduct remedial or cleanup work at the Facility and to recover the costs of such work from Defendants.

XXI. TERMINATION

53. This Consent Order shall terminate upon motion of the parties, and approval of the Court, following completion of all activities required under this Order. This Section, and the Sections of this Consent Order on Reservation of Rights, Deed Notice/Land Use and Conveyance of Title, and Sampling and Document Availability and Retention, shall survive this Termination Provision.

XXII. RETENTION OF JURISDICTION

54. This Court shall retain jurisdiction of this matter for the purpose of overseeing Defendants compliance with this Consent Order.

XXIII. COSTS

55. Defendants shall pay the court costs of this action.

XXV. APPENDICES

56. All appendices of this Consent Order are incorporated by reference into and are an enforceable part of this Consent Order. The following appendices are attached to this Consent Order at the time of signing by the Parties:

A. Approved SCIA Workplan;

B. List of Guidance Documents; and

C. Statement of Work (SOW).

XXIV. AUTHORITY TO ENTER INTO THE CONSENT ORDER

57. The signatories for Defendants represent and warrant that they have been duly authorized to sign this document and so bind Defendants to all terms and conditions thereof.

EFFECTIVE UPON AND ENTERED THIS _____ DAY OF _____, 1997.

_____

Wayne County Common Pleas Judge

APPROVAL OF COUNSEL ON BEHALF OF THE PARTIES:

STATE OF OHIO, ex rel.
BETTY D. MONTGOMERY
ATTORNEY GENERAL OF OHIO

JOSEPH P. KOMCELIK (0061692)
Assistant Attorney General
Environmental Enforcement Section
30 East Broad Street - 25th Floor
Columbus, Ohio 43215-3428
(614) 466-2766

Counsel for Plaintiff
State of Ohio

TELEDYNE ~~XXXWSXXXXS~~, INC..

Name:
Title: Vice President

Address: 1000 Six PPG Place
Pittsburgh, PA 15222-5479
Phone: (412) 394-2836

ETHICON ENDO-SURGERY, INC.

Name: _____
Title: _____

Address: _____

Phone: _____

UNITED TITANIUM

Name: _____
Title: _____

Address: _____

Phone: _____

ETHICON ENDO-SURGERY, INC.

Name: JOHN N. BEIDLER
Title: ASSISTANT GENERAL COUNSEL
ONE JOHNSON & JOHNSON PLAZA
Address: NEW BRUNSWICK, N.J. 08933

Phone: 908-524-2475

UNITED TITANIUM.

Name: _____
Title: _____

Address: _____

Phone: _____

SANDY SUPPLY

Name: _____
Title: _____

Address: _____

Phone: _____

WILLIA YENNE

Name: _____
Title: _____

Address: _____

Phone: _____

ETHICON ENDO-SURGERY, INC.

Name: _____
Title: _____

Address: _____

Phone: _____

UNITED TITANIUM, Inc.

Name: C/Michael Reardon
Title: PRES.

Address: 3450 Old Airport Rd.
WOOSTER, OH 44691

Phone: (330) 264-2111

SANDY SUPPLY

Name: _____
Title: _____

Address: _____

Phone: _____

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INTERNATIONAL TECHNOLOGY CORPORATION

Project No. 762199
April 1997

Final Plans

Source Control Interim Action Work Plan

Prepared for:
Sandy Supply PRP Group
Wooster, Ohio

Prepared by:
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Monroeville, Pennsylvania

RESPONSIVE TO THE NEEDS OF ENVIRONMENTAL MANAGEMENT

Attachment A

STATEMENT OF WORK (SOW) FOR CONDUCTING SOURCE CONTROL

INTERIM ACTION(S) AT THE DEFENDANT(S) SITE

PURPOSE:

The purpose of conducting the work described herein is to control the source(s) of groundwater contamination and pathways of contaminant migration which have resulted from the disposal of industrial wastes, pollutants, other wastes, and/or hazardous wastes, constituents, and substances (contaminants) at the Defendant(s) site (the Site). Defendant(s) shall conduct a Focused Site Characterization (FSC) to characterize the source(s) of contaminant release and any pathways of contaminant migration at or from the Site, determine Site physical characteristics, develop remediation goals, and obtain all other data necessary to design and implement the source control interim action(s) (SCIA(s)). Concurrent with the FSC, Defendant(s) shall evaluate potential SCIA(s), propose appropriate SCIA(s) for the Site, and prepare a conceptual design of the proposed SCIA(s). Following Ohio EPA approval of the FSC and the conceptual design for the proposed SCIA(s), Defendant(s) shall design and implement the approved SCIA(s), and operate, maintain and monitor the constructed system(s). Successful completion of the required work will result in the elimination of identified sources of contaminant releases and control of identified pathways of contaminant migration, to the extent that such pathways remain once source areas have been eliminated. For the purpose of this SOW, source areas are defined as any contaminated media which, after applying the procedures identified in this SOW, demonstrate the potential to elevate groundwater contaminant concentrations above risk-based levels. Elimination of source areas shall be demonstrated through groundwater monitoring downgradient of identified source areas. The FSC and conceptual design of the proposed SCIA(s) are interactive and are to be conducted concurrently so that the data collected during the FSC influences the evaluation of and the conceptual design of the proposed SCIA(s).

Defendant(s) shall conduct all required activities and provide all required deliverables in accordance with the Consent Order and this SOW. Defendant(s) shall furnish all necessary personnel, materials, and services needed, or incidental to, performing the activities described in this statement of work.

Defendant(s) shall obtain all site access agreements required to perform the work outlined in this SOW. Site access shall extend for the duration of the project and shall include allowances for all operation, maintenance, and monitoring considerations.

At the completion of the FSC, the Ohio EPA will approve or modify as appropriate Defendant(s) proposed SCIA(s). To obtain Ohio EPA approval, proposed SCIA(s) must at a minimum protect human health and the environment with respect to identified sources and pathways of contaminant migration, comply with all applicable requirements of federal, state and local laws and regulations, minimize cross-media transfer of contaminants and utilize permanent solutions to the maximum extent practicable.

TASKS:

1. Develop Workplan;

2. Conduct field investigations to characterize contaminant source(s) and pathways of contaminant migration, and obtain all data necessary to evaluate, select and design SCIA(s).

3. Design, implement, and monitor SCIA(s).

DELIVERABLES:

1. Workplan

2. Focused Site Characterization and Conceptual Design Report

3. Detailed Plans and Specifications

4. Operation, Maintenance and Monitoring Plans

5. Construction Certification Report

6. Monthly Progress Reports

1.0 DEVELOP WORK PLANS

Defendant(s) shall submit a FSC Workplan (Workplan), a sampling and analysis plan (SAP) consisting of a field sampling plan (FSP) and a quality assurance project plan (QAPP), and a Site health and safety plan (HSP). The Workplan and supporting documents must be approved by Ohio EPA prior to the initiation of field activities.

1.1 *FSC Workplan*

The Workplan shall be developed in conjunction with the SAP and the HSP although each plan may be submitted under separate cover. The Workplan shall

include the supporting rationale for performing each task in the manner described. The Workplan shall describe in detail all tasks necessary to perform the work required by this SOW, including materials and procedures required for each task, and work products to be submitted to the Ohio EPA. This includes deliverables as required by the Consent Order and this SOW, and meetings with Ohio EPA. The Workplan shall provide fixed date schedules for accomplishing the required work.

The Workplan shall clearly state the objectives of the FSC and identify and qualitatively assess actual or potential threats to human health and the environment posed by the Site. The Workplan shall include soil and groundwater remediation goals for all contaminants previously identified at the Site. Soil remediation goals are developed in order to define the extent of the source areas which the proposed SCIA(s) must address and serve as an aid in SCIA design. They also guide the location of groundwater compliance monitoring point(s). Soil remediation goals are not compliance levels which must be met. Groundwater remediation goals are developed to establish compliance levels which are then measured in ground water downgradient of the identified source area(s). They are the ultimate measure of success with respect to the work required by this SOW. The Workplan shall recognize that the development of soil and groundwater remediation goals is an iterative process which is repeated throughout the investigation if contaminants are detected which are not known to be present at the time of Workplan preparation. Soil and groundwater remediation goals shall be developed following the procedures identified below:

A. Identify contaminants of concern (COC). COCs are those contaminants detected in ground water and soil at the Site and their associated degradation products.. Low relative concentration and infrequent occurrence are insufficient reasons to eliminate contaminants from the COC list.

B. For each COC, identify the corresponding maximum contaminant level (MCL) if one exists, and calculate the residential water carcinogenic effects remediation goal and the residential water noncarcinogenic effects remediation goal using equations 1' and 2' on pages 21 and 22 of RAGS Part B (see Guidance Document List contained in Attachment C).

C. For each COC, select the lowest concentration from among the MCL, the carcinogenic risk-based remediation goal, and the noncarcinogenic risk-based remediation goal.

D. For each COC, compare the value obtained in item C above with the practical quantitation limit (PQL) for the contaminant when analyzed using U. S. EPA method 8260 with a 25 ml. purge (or equivalent method). The value obtained in item C becomes the groundwater compliance level unless the PQL is higher in which case the PQL becomes the groundwater compliance level.

E. For each COC, use the value obtained in item C above to calculate soil remediation goals for design purposes using the VLEACH procedure

described in exhibit 2.

Based on review of existing information, Defendant(s) shall include in the Workplan a summary of the Site background including geographic location, and describe Site physiography, hydrogeology, and history with regard to the use, storage and disposal of contaminants. The Workplan shall describe any previous response actions conducted by local, state, federal, or private parties; provide a summary of existing data in terms of physical and chemical characteristics of identified contaminants, describe their distribution among the environmental media; and demonstrate compliance with federal, state and local laws and regulations which apply to the work to be performed.

The Workplan shall identify potential SCIA(s) which address each media of interest, identifying treatment, excavation, pumping, or other actions, either singly or in combination, to satisfy the objectives of this SOW. Primary consideration shall be given to potential SCIA(s) which actively control the source through removal or treatment. Data collection activities necessary to define source areas, identify pathways of contaminant migration, and evaluate potential SCIA(s) shall be identified. Following Ohio EPA approval of the Workplan and supporting documents, Defendant(s) shall implement the work in accordance with the schedules described therein.

In performing the work required by this SOW, Defendant(s) may rely upon data and/or information gathered from other sources to the extent that Defendant(s) can demonstrate that field and laboratory QA/QC procedures acceptable to Ohio EPA were followed in the generation and presentation of the data and/or information. Defendant(s) shall include all supporting documentation in the Workplan for data and/or information gathered from other sources and clearly identify the intended use(s) and data quality objectives for such data and/or information. Ohio EPA will evaluate the adequacy of supporting QA/QC documentation and determine the acceptability of all data and/or information gathered from other sources during review of the draft Workplan.

If the need for additional work is identified at any time during the performance of the work required by this SOW, Defendant(s) shall submit a Workplan amendment with schedule documenting the need for the additional work and describing in detail the tasks to be performed. Defendant(s) shall be responsible for completing any additional work approved or required by the Ohio EPA in a manner consistent with the purpose and objectives of this SOW.

1.2 Sampling and Analysis Plan

Defendant(s) shall prepare a SAP consisting of the following:

A. *Field Sampling Plan*

The FSP shall specify and detail all activities necessary to obtain Site data and

provide detailed standard operating procedures (SOPs) for those activities. It shall explain what additional data are required to adequately characterize the Site and support the evaluation of potential SCIA(s). The FSP shall describe sampling objectives; equipment and procedures; sample types, locations, and frequencies; and parameters of interest; and shall be tied to the schedules contained in the Workplan.

B. *Quality Assurance Project Plan*

The QAPP shall address all investigations to be conducted at the Site and shall include the following:

1. A project description;

2. Analytical methods and laboratory procedures;

3. Data quality objectives tied to the intended use(s) for all data proposed for collection;

4. Quality assurance objectives for data such as the required precision, accuracy, completeness, representativeness, and comparability of data;

5. Chain of custody procedures during sample collection and in the laboratory;

6. The type and frequency of calibration procedures during sample collection and in the laboratory;

7. Preventative maintenance procedures and schedule and corrective action procedures for field and laboratory instruments;

8. Specific procedures to assess data precision, representativeness, comparability, accuracy, and completeness of specific measurement parameters; and

9. Data documentation and tracking procedures.

C. *Health and Safety Plan*

Defendant(s) shall submit an HSP which shall comply with the requirements of applicable federal, state, and local laws. The HSP shall be consistent with:

1. NIOSH Occupational Safety and Health Guidance Manual for Hazardous Waste Site Activities (1985);

2. Section 111(c)(6) of CERCLA;

3. U.S. EPA Order 1440.3 -- Respiratory Protection;

4. U.S. EPA Occupational Health and Safety Manual;

5. U.S. EPA Interim Standard Operating Safety Procedures and other U.S. EPA guidance as developed;

6. OSHA regulations, particularly in 29 CFR 1910 and 1926;

7. State and local regulations; and

8. Site or facility conditions.

The HSP shall identify problems or hazards that may be encountered and their solution. Safety procedures to be followed to protect third parties, such as visitors or the surrounding community, including monitoring, shall also be provided. While Ohio EPA may review and provide comment on the HSP, the document is not subject to formal agency approval.

2.0 SITE INVESTIGATION AND CONCEPTUAL DESIGN

Defendant(s) shall collect data on the physical and chemical characteristics of the Site to the extent necessary to define potential source areas and pathways of contaminant migration and provide sufficient engineering data for screening and selecting proposed SCIA(s). Defendant(s) shall screen the potential SCIA(s) identified in the Workplan concurrent with the Site characterization tasks.

2.1 Hydrogeology

Defendant(s) shall perform a Site-wide hydrogeologic study to evaluate the subsurface geology and water bearing formations, and to characterize groundwater contamination and pathways of contaminant migration. The study shall determine the location of water bearing formations, confining layers, bedrock, and other subsurface geologic features, and shall support the determination of the vertical and horizontal extent of source areas and distribution of source contaminants. Efforts shall begin with a survey of previous hydrogeologic studies and other existing data.

A detailed technical description of all methods to be used in gathering data for this task shall be included in the Workplan. This shall include a diagrammatic representation of proposed field survey, monitoring well, and piezometer locations, monitoring well and piezometer design and construction details, drilling techniques, and well development methods.

The hydrogeologic investigation shall provide the following information for the Site:

A. A representative and accurate classification and description of the hydrogeologic units which may be part of the contaminant source areas or pathways of contaminant migration (i.e., the aquifers and any intervening saturated and unsaturated units) including but not limited to:

1. Hydraulic conductivity (vertical and horizontal) and porosity (total and effective);

2. Storativity and transmissivity;

3. Lithology, grain size, sorting, and degree of cementation;

4. A determination of hydraulic interconnections between saturated zones; and

5. The retardation capacity and mechanisms of the natural earth materials (e.g., organic carbon content, clay content, clay mineralogy, etc.).

B. Hydrogeologic cross-sections showing the extent (depth, thickness, lateral extent) of hydrogeologic units which may be part of the contaminant source areas or pathways of contaminant migration, identifying:

1. Sand, gravel, and other unconsolidated deposits;

2. Zones of higher or lower permeability that might direct or restrict the flow of contaminants;

3. Aquifers: geologic formations, groups of formations, or parts of formations capable of yielding usable amounts of ground water to wells or springs; and

4. Water-bearing zones that may serve as a pathway for contaminant migration including perched zones of saturation.

C. A representative description of water level or fluid pressure monitoring including:

1. Potentiometric surface maps;

2. Hydrogeologic cross sections showing vertical gradients and interconnection between water bearing strata; and

3. Temporal changes in hydraulic gradients and flow directions.

D. A description of man-made influences that may affect the hydrogeology of the Site or act as pathways of contaminant migration identifying:

1. Active and inactive local water supply and production wells with an approximate schedule of pumping; and

2. Man-made hydraulic structures (pipe-lines, french drains, ditches,

unlined ponds, septic tanks, wastewater outfalls, retention areas, utility lines, etc.).

Defendant(s) shall document the procedures used in making the above determinations.

2.2 Soil and Sediments Investigations

Defendant(s) shall conduct a program to characterize the soil and unconsolidated deposits in the vicinity of the contaminant release(s). This process may overlap with certain aspects of the hydrogeologic study (e.g., characteristics of soil strata are relevant to both the transport of contaminants by ground water and to the locations of contaminants in the vadose zone). A survey of existing data on soils and sediments may be useful. The characterization shall include as appropriate the following information:

A. Soil classification using the Unified Soil Classification System;

B. Surface soil distribution;

C. Soil profile, including ASTM classification of soils;

D. Transects of soil stratigraphy;

E. Hydraulic conductivity;

F. Relative permeability;

G. Bulk density;

H. Porosity;

I. Soil sorptive capacity;

J. Soil organic content;

K. Particle size distribution;

L. Depth to water table and any perched zones;

M. Moisture content;

N. Effect of stratification on unsaturated flow;

O. Infiltration rate;

P. Storage capacity; and

Q. Clay mineralogy.

Defendant(s) shall document the procedures used in making the above determinations.

2.3 Contamination Characterization

Defendant(s) shall identify and characterize contamination of Site ground water and soils to the extent necessary to define contaminant source areas and pathways of contaminant migration, and complete the determination of soil and ground-water remediation goals. Data collected shall be sufficient to define the magnitude, origin, direction, and rate of contaminant migration.

A. Ground-water Contamination

Defendant(s) shall conduct an investigation to characterize ground-water contamination which shall at a minimum provide the following information:

1. A characterization of any immiscible or dissolved phase contaminant plume(s) originating from the Site including non-aqueous phase liquids (NAPL);

2. The velocity of contaminant movement;

3. The horizontal and vertical concentration profiles of contaminants in identified plumes;

4. An evaluation of factors influencing contaminant movement; and

5. Background contaminant concentrations in areas upgradient of and unaffected by Site-related contaminant source(s).

Defendant(s) shall follow the guidance identified in the list of Guidance Documents contained in Attachment B for well design, construction, development, purging, sampling, geophysics, modeling, etc. and shall document the procedures used in making the above determinations.

B. Soil Contamination

Defendant(s) shall conduct an investigation to characterize surface and subsurface soil contamination at the Site. The investigation shall be designed to collect the following information:

1. The vertical and horizontal concentration profiles of contaminants in Site vadose and phreatic soils;

2. A description of soil chemical properties which might affect contaminant migration and transformation;

3. Identification of contaminants present;

4. Background soil contaminant concentrations in areas unaffected by Site-related contaminant source(s).

2.4 *Focused Site Characterization Report*

Defendant(s) shall summarize all investigations and their results to ensure that the investigation data are sufficient in quality and quantity to describe the nature and extent of identified source(s) of contamination, define contaminant migration pathways, and support the selection and design of proposed SCIA(s). Any data gaps shall be identified and their impact upon the work shall be fully described. The analysis and summary shall be presented in a written report which shall at a minimum include the following:

A. Data on Site physical characteristics (soils, geology, hydrogeology, etc.)

B. Data on source characteristics describing:

1. The source location(s);

2. The type and integrity of any existing waste containment; and

3. A description and diagrammatic representation (planar and cross section) of the vertical and horizontal extent of contamination in the source area(s) (quantity of contaminated source media) based on the identified soil remediation goals.

C. A description and diagrammatic representation of actual and potential contaminant migration pathways.

D. Soil and ground-water remediation goals and supporting calculations.

2.5 *Conceptual Design Report*

Using data generated during the FSC, Defendant(s) shall evaluate the potential SCIA(s) identified in the FSC Workplan for applicability to Site conditions and recommend a proposed SCIA(s) for implementation at the Site. Defendant(s) shall include a technical description of each component of the proposed SCIA(s) outlining the waste management strategy involved and identifying all applicable regulatory requirements.

Factors considered by Ohio EPA in approval of proposed SCIA(s) include but are not limited to the following:

A. Time required for implementation;

B. Time required to achieve protection of human health and the environment;

C. Compliance with federal, state and local laws and regulations;

D. Performance efficiencies;

E. Use of treatment technologies which significantly reduce toxicity, mobility, and volume of contaminants;

F. Ability to minimize or eliminate cross-media transfer of contaminants;

G. Ability to verify SCIA(s) effectiveness;

H. Frequency of routine maintenance and component replacement;

I. Degree of permanence; and

J. Degree of contribution to the efficient performance of any anticipated long-term remedial action(s).

The Conceptual Design Report shall be included as part of or submitted concurrently with the Focused Site Characterization Report. The Conceptual Design Report shall include but not be limited to the following:

A. A comparative evaluation of potential SCIA(s) considering the factors identified above;

B. A narrative description of the proposed SCIA(s);

C. Schematic drawings of treatment processes;

D. A description of how treatment, storage, and disposal of contaminated media will comply with sound engineering practices and all applicable regulatory requirements;

E. Supporting data and documentation defining the functional aspects of the SCIA(s);

F. Design calculations including removal and destruction efficiencies for all SCIA components (treatment works, extraction wells, vadose gases extraction networks, etc.);

G. A Site map and cross sections showing the location of all SCIA components and significant Site features;

H. A schedule for submittal of detailed plans and specifications including any required permit applications, initiation and completion of construction, attainment of operational level; and initiation of operation, maintenance, and monitoring; and

I. Identification and assessment of all applicable regulatory requirements pertaining to the proposed SCIA(s) including:

1. Identification of permitting authorities,

2. Required construction/operation permits,

3. Time required by permitting authorities to process applications,

4. Monitoring and/or compliance testing requirements, and

5. Reporting requirements.

J. Monitoring requirements to verify system effectiveness.

3.0 DESIGN/IMPLEMENTATION (D/I)

The purpose of D/I is to design and implement the approved SCIA(s) in order to protect human health and the environment.

3.1 *Detailed Plans and Specifications*

The Detailed Plans and Specifications (DPS) for the approved SCIA(s) shall be submitted in accordance with the timetable contained in the Ohio EPA-approved Conceptual Design. The DPS shall include but not be limited to final construction drawings, specifications, plans, and design analyses with supporting calculations. Applications for any required permits shall be submitted simultaneously with the DPS. Following Ohio EPA approval of the DPS and receipt of any necessary construction permits, Defendant(s) shall initiate construction of the approved SCIA(s) in accordance with the schedule contained in the Conceptual Design.

3.2 *Operation and Maintenance (O&M) Plan*

An O&M plan shall be submitted to Ohio EPA prior to the completion of construction. Appropriate elements are listed in Exhibit 1. Plan elements listed in Exhibit 1 are for illustrative purposes and should not limit the content of the O&M plan.

3.3 Design Changes During Construction

During construction, unforeseen Site conditions, changes in estimated quantities, and other problems associated with the project may require either major or minor changes to the approved design. Design changes require prior approval of Ohio EPA and may require modification of permit(s) to install to ensure that the intent and scope of the approved SCIA(s) is maintained. Changes to the SCIA(s) design which require Ohio EPA approval prior to implementation include:

A. Those which involve the deletion or addition of a major component of the approved SCIA(s) (e.g. changing one treatment system for another, changing from in-situ to ex-situ remediation);

B. Those which result in a less effective treatment for wastes associated with the Site;

C. Any changes which may result in an increased exposure to Site contaminants and/or risk to human health or the environment;

D. Those which result in a significant delay in the completion of the SCIA(s); and

E. Any other changes which alter the scope or objectives of the approved SCIA(s).

3.4 Construction Completion

As the construction of the SCIA(s) nears completion, the following activities shall be completed by Defendant(s) to ensure proper construction completion and transition to the O&M phase.

A. *SCIA(s) Construction Certification Report*

A SCIA(s) Construction Certification Report (CCR) shall be prepared and submitted by Defendant(s) within 30 days of completion of construction and in accordance with the schedule contained in the Conceptual Design. The CCR report shall include the following:

1. A synopsis of the construction work defined in the detailed plans and specifications and certification that this work was performed;

2. An explanation of any modifications to the work defined in the detailed plans and specifications and why they were necessary for the project; and

3. Certification that the constructed SCIA(s) is operational and functional and constructed according to the approved plans and specifications.

EXHIBIT 1

Basic Elements of an Operation and Maintenance (O&M) Plan

A. Normal O&M

1. Description of tasks for operation
2. Description of tasks for maintenance
3. Description of prescribed treatment or operating conditions
4. Schedules showing the frequency of each O&M task

B. Potential Operating Problems

1. Description and analysis of potential operating problems
2. Sources of information regarding potential operating problems
3. Description of means of detecting problems in the operating systems
4. Common remedies for operating problems

C. Routine Monitoring and Laboratory Testing

1. Description of monitoring tasks
2. Description of required laboratory tests and interpretation of test results
3. Required QA/QC procedures
4. Monitoring schedule

D. Alternative O&M

1. Description of alternate procedures to prevent undue hazard, should systems fail
2. Vulnerability analysis and additional resources requirements should a failure occur

E. Safety Plan

1. Description of safety procedures, necessary equipment, etc. for site personnel
2. Description of safety tasks required in the event of systems failure

F. Equipment

1. Description of equipment necessary to the O&M Plan
2. Description of installation of monitoring components
3. Description of maintenance of site equipment
4. Replacement schedule for equipment and installed components

G. Records and Reporting Mechanisms Required

1. Daily operating logs
2. Laboratory records
3. Mechanism for reporting emergencies
4. Personnel and maintenance records
5. Monthly reports to Ohio EPA

EXHIBIT 2

METHOD TO EVALUATE THE IMPACT OF VOLATILE ORGANIC COMPOUND CONTAMINATED SOILS ON GROUND-WATER RESOURCES

This document describes a method for evaluating the impact of volatile organic compound contaminated soils on ground-water resources at hazardous waste sites. The method calculates the maximum mass of contaminant that can be transported from the vadose zone to ground water without ground-water contaminant levels exceeding ground-water remediation goals and evaluates how different contaminant concentrations impact the rate at which contaminants are transported from the vadose zone to ground water. The impact of contaminants leaching from the vadose zone to ground water can be evaluated for each contaminant of concern.

The method consists of two steps. In step 1, the maximum mass flux for the contaminant of concern is calculated by setting the contaminant concentration in the top 10 feet of the aquifer beneath the contaminated portion of the site to the ground-water remediation goal, estimating the vertical and horizontal components of ground-water flow, and determining by mass balance calculations the maximum contaminant mass which can be transported via liquid advection and gaseous diffusion to ground water beneath the site without exceeding the ground-water remediation goal.

In step 2, VLEACH, a one-dimensional finite difference vadose zone leaching model, is used to evaluate the impact of soil contaminant concentrations on the transport of contaminants from the vadose zone to ground water.

Step 1. Calculate maximum mass flux for each contaminant.

A simple ground-water flow model is constructed for the site. The model assumes that Darcy's Law as expressed below is valid.
stack {Q~=~-KA{dh}over{dl} #{~}# ALIGNL func where~K~=~func hydraulic~ func conductivity# {~}# ALIGNL ~~~~~~~~~A~ =~func area# {~}# ALIGNL```~~~~~{dh}over{dl}~=~func hydraulic~ func gradient}The model is constructed as follows.

1. Measure the surface area of the contaminated portion of the site.

2. Measure the cross-sectional width of the contaminated area perpendicular to the direction of ground-water flow.

3. Using Darcy's Law, calculate the lateral ground-water flow in the top ten feet of the aquifer beneath the contaminated portion of the site.

4. Calculate the maximum mass of contaminant that can leave the site (ground-water remediation goal times yearly flux).

5. Calculate the infiltration rate through the contaminated portion of the site using the U.S.EPA Help Model.

6. Assuming the upgradient ground water contaminant concentration = 0, calculate the maximum contaminant mass flux rate for contaminants moving from the vadose zone to ground water passing beneath the site such that the ground-water contaminant level will not exceed the ground-water remediation goal.

Step 2. Evaluate the impact of soil contaminant concentrations on contaminant mass flux.

VLEACH is a computer code for estimating the impact due to the mobilization and migration of a sorbed organic contaminant located in the vadose zone on the underlying ground-water. The code was developed by CH2M Hill for the United States Environmental Protection Agency (USEPA). Version 2.0 can be obtained from USEPA's Center for Subsurface Modeling Support in Ada, Oklahoma.

VLEACH describes the movement of an organic contaminant within and between three different phases: (1) as a solute dissolved in water, (2) as a gas in the vapor phase, and (3) as an adsorbed compound in the solid phase. In particular, VLEACH simulates vertical transport by advection in the liquid phase and by gaseous diffusion in the vapor phase.

These processes are conceptualized as occurring in a number of distinct, use-defined polygons that are vertically divided into a series of cells. Variables such as soil properties, recharge rate, contaminant concentration, and depth to water table are specified for each polygon. Within each polygon homogeneous conditions are assumed except for contaminant concentration, which can vary between layered cells.

VLEACH calculates the mass of contaminant transported to ground water per the user-defined time period. Through an iterative "back calculation" procedure, one can evaluate the ground-water impact of differing vertical arrays of contaminant concentrations until one or more vertical arrays are found which do not result in the exceedance of the ground-water remediation goals.

ATTACHMENT B

OHIO EPA AND U.S. EPA GUIDANCE DOCUMENTS

Statement of Purpose and Use of This Guidance Document List:
The purpose of this list of Ohio EPA and U.S. EPA policies, directives and guidance documents is to provide a reference of the documents which provide essential direction and guidance for conducting investigations, evaluating alternative remedial actions, and designing and implementing selected remedial actions at sites for which the Division of Emergency and Remedial Response has authority over such activities. Certain sites may have contaminants or conditions which are not fully addressed by the documents in this list. There is an evolving body of policy directives, guidance and research documentation which should be utilized, as necessary, to address those conditions and contaminants not encompassed by the documents in this list. For sites where activities are conducted in response to an administrative or judicial order, this list would be an attachment to the order and would govern the work conducted pursuant to it. When entering into or issuing an order for a particular site, Ohio EPA reserves the right to modify this list to fully address the site conditions.

OHIO EPA POLICIES AND GUIDANCE DOCUMENTS

1. Background Sampling Guidance, Final, Ohio EPA, Division of Emergency and Remedial Response, July 26, 1991

2. Best Available Treatment Technologies (BATT) for Remedial Response Program Sites, Ohio EPA Policy No. DERR-00-RR-016, Final, October 23, 1992

3. Guidelines and Specifications for Preparing Quality Assurance Project Plans, Ohio EPA, Division of Emergency and Remedial Response, Policy No. DERR-00-RR-008, March 1990

4. How Clean is Clean, Final, Ohio EPA, Division of Emergency and Remedial Response, Policy No. DERR-00-RR-009, July 26, 1991

5. Procedures for Evaluation of Response Action Alternatives and Remedy Selection for Remedial Response Program Sites, Ohio EPA Policy No. DERR-00-RR-019, Final, October 23, 1992

6. Technical Guidance Manual for Hydrogeologic Investigations and Ground Water Monitoring Programs, Ohio EPA, Division of Drinking and Ground Waters, Final, February 1995

7. Wastewater Discharges Resulting from Clean-Up of Response Action Sites Contaminated with Volatile Organic Compounds, Ohio EPA Policy No. DSW-DERR 0100.027, Final, September 22, 1994

Also, if there are any aquatic ecological concerns for the site under investigation please consult the following Biological Criteria documents:

8a. Biological Criteria for the Protection of Aquatic Life: Volume I. The Role of Biological Data in Water Quality Assessment. Ohio EPA, Division of Surface Water, 1987

8b. Biological Criteria for the Protection of Aquatic Life: Volume II. Users Manual for Biological Field Assessment of Ohio Surface Waters. Ohio EPA, Division of Surface Water, 1987

8c. Addendum to Biological Criteria for the Protection of Aquatic Life: Volume II. Users Manual for Biological Field Assessment of Ohio Surface Waters. Ohio EPA, Division of Surface Water, 1989

8d. Biological Criteria for the Protection of Aquatic Life: Volume III. Standardized Biological Field Assessment of Ohio Surface Waters. Ohio EPA, Division of Surface Water, 1989

8e. Rankin, E.T. 1989. The Qualitative Habitat Evaluation Index (QHEI): Rationale, Methods, and Application. Ohio EPA, Division of Surface Water, 1990

U.S. EPA GUIDANCE DOCUMENTS AND OTHER USEFUL GUIDANCE

9. CERCLA Compliance with Other Laws Manual - Part I, OSWER Directive 9234.1-01, EPA/540/G-89/006, August 1988, interim final

10. CERCLA Compliance with Other Laws Manual - Part II, OSWER 9234.1-01, EPA/540/G-89/006, August 1988, interim final

10. A Compendium of Technologies Used in the Treatment of Hazardous Wastes, EPA/625/8-87/014, September 1987

12. A Rationale for the Assessment of Errors in the Sampling of Soils, EPA/600/4-90/013, July 1990

13. Assessment of Technologies for the Remediation of Radioactively Contaminated

Superfund Sites, EPA/540/2-90/001, January 1990

14. Closure of Hazardous Waste Surface Impoundments, SW-873, September 1980

15. Conducting Remedial Investigations/Feasibility Studies for CERCLA Municipal Landfill Sites, OSWER Directive 9355.3-11, EPA/540/P-91/001, Feburary 1991

16. Data Quality Objectives Process for Superfund, Interim Final Guidance, OSWER Directive 9355.9-01, EPA540-R-93-071, September 1993

17. Ecological Assessments of Hazardous Wastes Sites: A Field and Laboratory Reference, EPA/600/3-89/013, March 1989

18. Exposure Factors Handbook, EPA/600/8-89/043, March 1990

19.* Guidance for Remedial Actions for Contaminated Ground Water at Superfund Sites, OSWER Directive 9283.1-2, EPA/540/G-88/003, December 1988, interim final

20. Guidance for Conducting Remedial Investigation and Feasibility Studies under CERCLA, Interim Final, OSWER 9355.3-01, EPA/540/G-89/004, October 1988

21.* Guidance on Remedial Actions for Superfund Sites with PCB Contamination, OSWER Directive 9355.4-01, EPA/540/G-90/007, August 1990

22. Guidance Document on the Statistical Analysis of Ground Water Monitoring Data at RCRA Facilities, EPA, 1989

23. Guidance on Applying the Data Quality Objectives Process for Ambient Air Monitoring Around Superfund Sites (Stages 1 & 2), EPA/450/4-89/015, August 1989

24. Guidance for Data Usability in Risk Assessment, OSWER Directive 9285.7-05, EPA/540/G-90/008, October 1990, interim final

25.* Guide for Decontaminating Buildings, Structures, and Equipment at Superfund Sites, EPA/600/2-85/028, March 1985

26. Guide for Conducting Treatability Studies Under CERCLA: Soil Vapor Extraction, EPA/540/2-91/019A, September 1991, interim guidance

27. Guide for Conducting Treatability Studies Under CERCLA: Aerobic Biodegradation Remedy Screening, EPA/540/2-91/013A, July 1991, interim guidance

28. Guide for Conducting Treatability Studies Under CERCLA, EPA/540/2-89/058, December 1989, interim final

29. Handbook - Permit Writer's Guide to Test Burn Data - Hazardous Waste Incineration, EPA/625/6-86/012, September 1986

30.* Handbook - Quality Assurance/Quality Control (QA/QC) Procedures for Hazardous Waste Incineration, EPA/625/6-89/023, January 1990

31. Handbook - Dust Control at Hazardous Waste Sites, EPA/540/2-85/003, November 1985

32.* Handbook - Guidance on Setting Permit Conditions and Reporting Trial Burn Results - Volume II of the Hazardous Waste Incineration Guidance Series, EPA/625/6-89/019, January 1989

33. Handbook on In Situ Treatment of Hazardous Waste-Contaminated Soils, EPA/540/2-90/002, January 1990,

34. Handbook for Stabilization/Solidification of Hazardous Wastes, EPA/540/2-86/001, June 1986

35. Handbook - Hazardous Waste Incineration Measurement Guidance Manual - Volume III of the Hazardous Waste Incineration Guidance Series, EPA/625/6-89/021, June 1989

36. Leachate Plume Management, EPA/540/2-85/004, November 1985

37. Preparation Aids for the Development of Category 1 Quality Assurance Project Plans, EPA/6008-91-003, February 1991

38. Quality Assurance/Quality Control Guidance for Removal Activities: Sampling QA/QC Plan and Data Validation Procedures,Interim Final, EPA/540/G-90/004, April 1989

39. RCRA Ground Water Monitoring Technical Enforcement Guidance Document (TEGD), OSWER Directive 9950.1, September 1986

40. Risk Assessment Guidance for Superfund: Volume I - Human Health Evaluation Manual (Part A), Interim Final, EPA/540/1-89/002, December 1989

41. Risk Assessment Guidance for Superfund: Volume I - Human Health Evaluation Manual (Part B), "Development of Risk-based Preliminary Remediation Goals," OSWER Directive 9285.7-01B, December 1991, Interim

42. Risk Assessment Guidance for Superfund: Volume II -Environmental Evaluation Manual, OSWER Directive 9285.7-01, EPA/540/1-89/001A, March 1989, interim final

43. Risk Assessment Guidance for Superfund: Volume I - Human Health Evaluation Manual, Supplemental Guidance: "Standard Default Exposure Factors," OSWER Directive 9285.6-03, March 1991, interim final

44. Risk Assessment Guidance for Superfund: Volume I - Human Health Evaluation Manual (Part C), "Risk Evaluation of Remedial Alternatives," OSWER Directive 9285.7-01C, December 1991, Interim

45.* Seminar Publication - Requirements for Hazardous Waste Landfill Design, Construction, and Closure, EPA/625/4-89/022, August 1989

46. SW 846, Test Methods for Evaluating Solid Waste, 3rd Edition and appropriate updates, November 1986.

47. Stabilization/Solidification of CERCLA and RCRA Wastes - Physical Tests, Chemical Testing Procedures, Technology Screening and Field Activities, EPA/625/6-89/022, May 1989

48. Standard Methods for the Examination of Water and Wastewater, American Public Health Association, 18th Edition, 1992

49.* Superfund Remedial Design and Remedial Action Guidance, OSWER 9355.0-4A, June 1986

50. Superfund Exposure Assessment Manual, OSWER Directive 9285.5-1, EPA/540/1-88/001, April 1988

51. Superfund Ground Water Issue: Ground Water Sampling for Metals, EPA/540/4-89/001, March 1989

52.* Technical Guidance Document: Final Covers on Hazardous Waste Landfills and Surface Impoundments, EPA/530-SW-89-047, July 1989

53.* Technical Guidance Document: Inspection Techniques for the Fabrication of Geomembrane Field Seams, EPA/530/SW-91/051, May 1991

54. Technical Guidance for Corrective Measures - Subsurface Gas, EPA/530-SW-88-023, March 1985

55. Technical Guidance Document: Construction Quality Assurance and Quality Control for Waste Containment Facilities, EPA/600/R-93/182, September 1993

56. U.S. EPA Integrated Risk Information System (IRIS) Data Base

57. U.S. EPA Health Effects Assessment Summary Tables, Office of Emergency & Remedial Response, published annually

58. U.S. EPA Contract Laboratory Program National Functional Guidelines for Inorganic Data Review, EPA-540/R-94-013, February 1994

59. U.S. EPA Contract Laboratory Program National Functional Guidelines for Organic Data Review, EPA-540/R-94-012, February 1994

Notes:

1) Documents and guidances denoted by an asterisk (*) are those which may be important to the Remedial Design/Remedial Action phase of a project but generally will have limited relevance to the Remedial Investigation/Feasibility Study process.

2) This list of guidance documents is updated periodically. You should check with Ohio EPA to verify that this list is the most current available.

ATTACHMENT B Cont'd

GUIDANCE DOCUMENTS FOR THE DEVELOPMENT

OF THE WORKPLAN

a) *Technical Guidance Manual for Hydrogeologic Investigations and Ground Water Monitoring Programs*, Ohio EPA, June, 1993, Draft.

b) *Guidelines and Specifications for Preparing Quality Assurance Project Plans*, Ohio EPA, Division of Emergency and Remedial Response, Policy No. DERR-00-RR-008.

c) *Preparation Aids for the Development of Category 1 Quality Assurance Project Plans*, EPA/600/8-91/003, February, 1991.

d) *Data Quality Objectives for Remedial Response Activities: Development Process*, EPA/540/G-87/003, March, 1987.

e) *Risk Assessment Guidance for Superfund: Volume I - Human Health Evaluation Manual (Part B, Development of Risk-based Preliminary Remediation Goals)*, EPA/540/R-92/003, December, 1991, Interim.

f) *VLEACH: A One-Dimensional Finite Difference Vadose Zone Leaching Model*, Version 2.0, USEPA, Hazardous Sites Control Division, Contract No. 68-01-251, 1990.

IN THE COURT OF COMMON PLEAS
WAYNE COUNTY, OHIO

State of Ohio	:	**Case No.**
Betty D. Montgomery	:	
Attorney General of Ohio	:	**Judge**
	:	
Plaintiff,	:	
	:	**Joint Notice of Filing**
v.	:	**of Proposed Consent Order**
	:	**for Permanent Injunction**
Teledyne Industries, Inc., et al.	:	
	:	
	:	
Defendants.	:	

Plaintiff, the State of Ohio ex rel., together with Defendants, Teledyne Industries Inc, Ethicon Endo-Surgery Inc., United Titanium Inc., Sandy Supply Company, and Christmas Run Inc., do hereby give notice to this Court of the filing of the attached Consent Order for Permanent Injunction in the above-captioned case. The Consent Order requires the performance of remediation work at the site commonly known as the Sandy Supply Site. The Parties are standing by to assist the Court in its consideration of the Consent Order.

The Consent Order represents the proposed settlement between the parties, including the State enforcement of the Federal Clean Water Act. Pursuant to the requirements of the Federal Clean Water Act 40 C.F.R. Section 123.27(d)(2)(iii), the Ohio Environmental Protection Agency will allow thirty (30) days for a public notice regarding the proposed Consent Order, which is to begin on or about April 30, 1998. Because the thirty (30) day public notice and comment period will extend beyond the time period for Defendants to file their answers in this case, the State of

IN THE COURT OF COMMON PLEAS
WAYNE COUNTY, OHIO

State of Ohio
Betty D. Montgomery
Attorney General of Ohio

Plaintiff,

v.

Teledyne Industries, Inc., et al.

Defendants.

Case No.

Judge

Joint Notice of Filing of Proposed Consent Order for Permanent Injunction

Plaintiff, the State of Ohio ex rel., together with Defendants, Teledyne Industries Inc, Ethicon Endo-Surgery Inc., United Titanium Inc., Sandy Supply Company, and Christmas Run Inc., do hereby give notice to this Court of the filing of the attached Consent Order for Permanent Injunction in the above-captioned case. The Consent Order requires the performance of remediation work at the site commonly known as the Sandy Supply Site. The Parties are standing by to assist the Court in its consideration of the Consent Order.

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State of Ohio does not object to a sixty (60) day extension of Defendants' answer date.

The State of Ohio and each Defendant reserve the right to withdraw consent to this Consent Order upon filing with this Court notice of such withdrawal in the event that the parties cannot agree to changes proposed by the State of Ohio to this Consent Order as a result of public comment.

After the public notice period has ended, the Parties agree to file a Joint Motion to Enter the Consent Order, at which time the Parties will request that the Court review and consider the proposed Consent Order. The parties would request that you sign the Consent Order after we confirm in writing with you that the public notice period is over and, assuming it meets with the Court's approval, the proposed Consent Order can go final. If public comments affect the Consent Order requiring a change in terms and conditions, however, Defendants and the State would not be bound by this Consent Order.

Respectfully Submitted,

STATE OF OHIO, ex rel.
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