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New York State Department of Environmental Conservation
Region 4 Headquarters
1150 North Westcott Road
Schenectady, New York 12306-2014
Telephone 518/357-2048 Facsimile: 518-357-2087

Michael D. Zagata
Commissioner

OVERNIGHT DELIVERY

August 8, 1995

David P. Flynn, Esq.
Phillips, Lytle, Hitchcock, Blaine & Huber
3400 Marine Midland Center
Buffalo, New York 14203

Re: Order on Consent
R4-1467-93-02

Dear Mr. Flynn:

Enclosed please find a fully executed copy of the above referenced Order.

Sincerely,

David H. Keehn
Assistant Regional Attorney
Region 4

Enclosure

STATE OF NEW YORK
DEPARTMENT OF ENVIRONMENTAL CONSERVATION
----------X

In the Matter of the Alleged Violations of Article 17 of the New York State Environmental Conservation Law, Article 12 of the New York State Navigation Law, and Regulations promulgated thereunder,

ORDER ON CONSENT

DEC File No.
R4-1467-93-02

- By -

AL Tech Specialty Steel Corp.,

Respondent.
----------X

WHEREAS:

JURISDICTION

1. The New York State Department of Environmental Conservation (DEC) is the State agency with jurisdiction over the environmental law and policy of the State pursuant to, inter alia, § 3-0301 of the Environmental Conservation Law (ECL). In particular, DEC is and has been responsible for the protection of the water resources of the State, pursuant to, *inter alia*, ECL Article 17, and regulations promulgated thereunder; and Article 12 of the New York State Navigation Law (NL) and regulations promulgated thereunder, and for overseeing the conduct of corrective and remedial actions under, *inter alia,* ECL Article 27 and regulations promulgated thereunder.

2. Respondent AL Tech Specialty Steel Corp. (Respondent) is a Delaware Corporation, duly authorized to conduct business in New York, which owns and operates two specialty steel manufacturing facilities, one located on Lincoln Avenue in the Town of Colonie, New York (the Watervliet facility), and another at Willowbrook Avenue, Dunkirk, New York, 14048 (the Dunkirk facility), and is a person as defined in ECL § 17-0105(1) and NL § 172(14).

3. DEC and Respondent agree that it is the goal of this Order to fund and implement the Program (defined below) at Respondent's facilities over time, resolve the violations of law alleged herein, and return both facilities to full compliance with all applicable environmental laws and regulations.

FACTS

SPDES Violations

4. Respondent's State Pollutant Discharge Elimination System (SPDES) permit, No. NY 0007081, sets out conditions governing the operation of Respondent's wastewater treatment facility at the Watervliet facility, and sets limits for the discharge of pollutants to the waters of the State by Respondent.

5. Respondent has violated the terms of the referenced SPDES permit on the occasions and at the outfalls indicated below. DEC and Respondent agree that execution of this Order will result in the resolution of all SPDES violations at the Watervliet facility that occurred before the effective date of this Order, whether or not every one of them is listed below.

- November, 1990; TSS, chrome and nickel at 09A
- December 1990; chrome and nickel at 09A
- January, 1991; TSS, hexchrome, total chrome and nickel at 09A
- February, 1991; hexchrome at 09A
- March, 1991; nickel at 09A
- August, 1991; nickel at 09A
- October, 1991; antimony at 09A
- November, 1991; antimony at 09A
- December, 1991; antimony at 09A
- January, 1992; ammonia, TSS and antimony at 09A
- March, 1992; TSS at 09A
- April, 1992; TSS at 09A
- May, 1992; lead at sum of 09A and 09B
- June, 1992; flow at 08B; pH at 09A; foam at 009
- July, 1992; oil & grease at 09B; nickel and pH at 09A; foam at 009

- August, 1992; cyanide and pH at 09A; iron at 009,003 and 012
- September, 1992; chlorine at 003
- December, 1992; Ph at 09A
- January, 1993; ammonia, antimony at 09A; TSS at 09B
- February, 1993; surfactant, at 09A; TSS at 09B
- March, 1993; TSS at 09B and 09A
- April, 1993; mercury at sum of 09A and 09B
- May, 1993; pH, nickel at 09A; ammonia, mercury at sum of 09A and 09B
- June, 1993; pH at 09A, mercury at sum of 09A and 09B
- July, 1993; oil and grease at 09B, mercury at sum of 09A and 09B
- August, 1993; mercury, phenolics, zinc, copper, cadmium, at sum of 09A and 09B
- September, 1993; phenolics, cadmium and mercury at sum of 09A and 09B
- October, 1993; oil and grease at 09A, zinc, at sum of 09A and 09B, Iron at sum of 003, 009 and 012
- November, 1993; mercury, at sum of 09A and 09B, iron at sum of 009,003 and 012
- December, 1993; Iron at sum of 003, 009 and 012, foaming at 009, TSS at 09B
- January, 1994; Oil & Grease at 09C, Iron at 09C, Nickel at 09A, Iron at sum of 003, 009 and 012, Oil & Grease at 09B
- February, 1994; Iron at 09C
- March, 1994; Iron at sum of 003, 009 and 012, TSS at 09B, Zinc at sum of 09A and 09B
- April, 1994; Iron at sum of 003, 009 and 012, TSS at 09A, Ammonia at sum of 09A and 09B, Temperature at 003, TSS at 09B

- May, 1994; Iron at sum of 003, 009, and 012, Temperature at 003, Surfactant at 09A, TSS at 09B, Zinc and Copper at sum of 09A and 09B, Oil & Grease at 09B
- June, 1994; TRC at 09A, TSS at 09B, Zinc at sum of 009, Iron at sum of 003, 009 and 012
- July, 1994; TRC at 003, 09A and 012, Iron at sum of 003, 009, and 012, Copper at 009
- August, 1994; Phenolics at 009, Iron at sum of 003, 009, and 012, TRC at 003, pH at 09A, Surfactants at 09A, TRC at 09A, TSS at 09B, TRC at 012
- September, 1994; TRC at outfalls 003, 09A and 012, TSS at 09B, Copper at 009, Iron at sum of 003, 009 and 012
- October, 1994; pH at 09A, TRC at 012, Copper at 009, Lead at 009, Iron at sum of 003, 009 and 012
- November, 1994; Copper at 009, Iron at sum of 003, 009 and 012, pH at 09A, TSS at 09B, TRC at 012
- December, 1994; Iron for sum of 003, 09A and 012, TSS at outfall 09B
- January, 1995; Iron for sum of 003, 009 and 012, pH at 09A, TSS at 09B
- February, 1995; Iron for 003, 009 and 012, pH at 09A, TSS at 09A, TRC at 012
- March, 1995; Iron for 003, 009 and 012, pH at 09A, Mercury at 009
- April, 1995; Iron from 003, 009 and 012, pH at 09A, TSS at 09B, TRC at 003, TRC at 09A, TRC at 012
- May, 1995; Iron from 003, 009, 012 and 012, TSS at 09A, Oil and Grease at 09A, TRC at 012 and Cyanide at 09A

Petroleum Spill Violations

6. On or about February 17, 1993, Respondent discharged petroleum to the Kromma Kill from its SPDES outfall #009 at the Watervliet facility.

7. The action identified in the preceding paragraph constitutes a violation of NL § 173, ECL § 17-0501, and 6 NYCRR § 703.5, which proscribe discharges of petroleum which cause a violation of duly promulgated water quality standards.

8. Respondent failed to notify DEC of the discharge on or about February 17, 1993 as required.

9. The action identified in the preceding paragraph constitutes a violation of NL § 175, ECL § 17-1743, 17 NYCRR § 32.3, and 6 NYCRR § 613.8, which require the timely notification of DEC of discharges of petroleum.

RCRA Violations

10. A DEC inspection of the Watervliet facility on or about January 20, 1995 revealed violations of the following RCRA provisions:

a. 373-3.2(h)(1): Although no waste was in the 90-day exempt container storage area at the time of inspection, D001 waste is occasionally generated at this facility, and therefore, a "No Smoking" sign should be posted in the area.

b. 376.1(g)(1)(i): All inspected manifests for EAF Dust, a K061 waste, were lacking a separate LDR notice. Instead, a line was typed in on the manifests which read "subject to disposal restrictions under 40 CFR 268.33 and 6NYCRR 376.4(c)." No other LDR information was given.

c. 376.5(a)(1)(i): Not all of the storage requirements in 373-3 were complied with, as noted in Part II and the inspection forms.

d. Condition II.G.1: There are no updates to the post-closure cost estimates that satisfy this condition.

e. 373-3.10(b): Assessment of existing tanks - the EAF dust tank is old and has no secondary containment. No documentation could be produced for this tank. No assessment has been done for this tank.

f. 373-3.10(c): Assessment of new tank system or components - the acid tanks are relatively new but very little documentation could be produced on-site, and no actual assessment as required by the regulations has been performed on these tanks. These tanks are inside a building with a floor trench containment system.

g. 373-3.10(d)(9): None of the tanks have had an annual exam for leaks or integrity, and therefore, no documentation is on file.

h. 373-3.10(e)(4): The EAF dust tank had a hazardous waste sticker but no other words appeared on the sticker to indicate the contents of the tank.

i. 373-1.1(d)(1)(xii) and 373-3.10(l)(2)(v): The leachate pit and surge pit were not marked with the words "Hazardous Waste" and other words to identify their contents.

Respondent shall institute measures to correct these violations and ensure, to the maximum extent practicable, that they do not recur.

General

11. ECL § 71-1929 provides, *inter alia*, that any person who violates any provisions of Article 17 of the ECL, or regulations promulgated thereunder shall be liable for a civil penalty not to exceed $25,000, and an additional penalty of $25,000 for each day such violation continues, and may be enjoined from continuing such violation.

12. ECL § 71-2705 provides, *inter alia*, that any person who violates any provisions of titles 9, 11 and 13 of Article 27 of the ECL, or regulations promulgated thereunder, shall be liable for a civil penalty not to exceed $25,000, and an additional penalty of $25,000 for each day such violation continues, and may be enjoined from continuing such violation. In the case of second and subsequent violations, the liability shall be for a penalty of a maximum of $50,000 per day and an additional penalty of $50,000 for each day such violation continues.

13. NL § 192 provides that any violations of the provisions of the Navigation Law cited in this Order subject the violator to a penalty of up to $25,000 per day of violation.

14. Respondent hereby consents to the issuance and entry of this Order, affirmatively waives its right to a hearing herein as provided by law, and agrees to be bound by the provisions, terms and conditions contained herein.

NOW, being duly advised and having considered this matter, **IT IS HEREBY ORDERED THAT:**

I. Financial Assurance

Within 30 days of the effective date of this Order, Respondent shall submit a Financial Assurance Plan, which will, to the extent practicable, identify and ensure the availability of resources sufficient for the completion of all activities called for in this Order in a manner consistent with the prioritization schedule, which is Appendix C hereto, and hereby made a part of this Order. The plan shall call for, among other things, the creation and funding of a trust fund. Expenditures from the trust fund shall be made as directed by DEC. DEC will either approve or disapprove the Financial Assurance Plan, and if the plan is disapproved, shall notify Respondent of the reasons therefor in writing. Within 15 days of the receipt of any disapproval, Respondent shall submit to DEC a revised plan addressing the issues identified in the disapproval. If the revised plan is not approvable, DEC, at its option, may disapprove it or may approve it on condition that Respondent accept such modifications as may be specified by DEC

to make it approvable. If Respondent does not accept such modifications, the revised plan shall be disapproved, and Respondent shall be in violation of this Order, unless Respondent contests the issue and invokes the Dispute Resolution section of this Order.

Proposals for modification of the Financial Assurance Plan, or a proposal that no changes should be made to the Financial Assurance Plan, shall be submitted by Respondent by each January 15 and July 15 subsequent to the effective date of this Order, for DEC review and approval. DEC will either approve or disapprove the proposed modifications, or lack thereof, and if the proposal is disapproved, shall notify Respondent of the reasons therefor in writing. Within 15 days of the receipt of any disapproval, Respondent shall submit to DEC a revised proposal addressing the issues identified in the disapproval. If the revised proposal is not approvable, DEC, at its option, may disapprove it or may approve it on condition that Respondent accept such modifications as may be specified by DEC to make it approvable. If Respondent does not accept such modifications, the revised plan shall be disapproved, and Respondent shall be in violation of this Order, unless Respondent contests the issue and invokes the Dispute Resolution section of this Order. In the event the Financial Assurance Plan is finally determined to be inadequate, DEC may, at its option, revoke this Order. Respondent shall annually provide DEC with a copy of its yearly audited financial statement within 30 days of its finalization. In the event this Order is no longer effective, DEC specifically reserves its right to require Respondent to provide, within 30 days of a request by DEC therefor, a financial assurance package which meets all applicable regulatory or statutory criteria, for any project for which such a financial assurance package is required, or would in the absence of this Order have been required. In the event Respondent is finally determined to be in violation of any terms of this Order, except provisions relating to dates by which submissions are due which are corrected within 5 business days of the receipt by Respondent of a notice that such submittal is overdue, DEC reserves the right to revoke this Order. Nothing in this Order, or elsewhere, shall limit DEC's ability to pursue any and all rights it may have, or which it may acquire, in any forum, against any parties other than Respondent for matters covered by this Order.

As of the effective date of this Order, DEC and Respondent agree that elements of the plan will include the following:

- up-front participation in the trust fund by GATX Corporation, a former owner of AL Tech, in the amount of $1,000,000, and annual contributions from GATX ranging from $500,000 to $300,000 over the life of the Order;

- monthly contributions from AL Tech ranging from $30,000 to $50,000 over the life of the Order;

- the application to the Environmental Facilities Corporation for a loan for funds for remedial work;

- all proceeds, if any, from a pending appeal of a decision denying AL Tech its claim in bankruptcy against a former owner/affiliate, Allegheny International;

- net proceeds, if any, from the metals reclamation project (see below) which AL Tech may institute at the Watervliet facility;

- 10% of AL Tech's annual net profits.

II. Penalty

A. Payable and Suspended

Respondent is hereby assessed a civil penalty in the amount of $130,000, as follows: within 30 days after Respondent is notified that this Order has been executed by DEC, Respondent shall submit to DEC a payment of $5,000, payable to the New York State Department of Environmental Conservation. The Respondent shall make monthly payments of an equal amount for the subsequent 4 months. The balance of $105,000 shall be suspended for so long as Respondent fully complies with the terms and conditions of this Order. The suspended penalty shall be immediately due and payable at such time as Respondent receives from DEC a notice of violation indicating it has violated the terms and conditions of this Order, after the parties have attempted to resolve any dispute pursuant to the Dispute Resolution section of this Order. In the event Respondent fails to pay sums that come due under the terms of this Order, this Order together with the notice of violation specifying the violation and the amount due may be filed and enforced by DEC, in any court of competent jurisdiction in the State of New York, as a civil judgment for the total amount set forth in the notice of violation, without the need for any further administrative proceedings whatsoever.

B. Stipulated

If Respondent fails to meet a deadline which is not governed by the provisions of any other Order or the Permit, Respondent shall be liable for a stipulated penalty as set forth below:

Period of Non-Compliance	Penalty Per Day
1st day through 15th day	$200
16th day through 30th day	$400
31st day through 45th day	$750
Each day beyond the 45th day	$1,250

The stipulated penalty, if sought by DEC, shall run from the date Respondent is notified by DEC that a covered deadline has been missed and the non-compliance has not been cured within 5 business days of such notification, unless Respondent contests the issue and invokes the Dispute Resolution section of this Order. If Respondent fails to pay any Stipulated Penalty that has been sought by DEC, the Order together with the notice of violation specifying the violation and amount due may be filed and enforced by DEC in any court of competent jurisdiction in the State of New York, as a civil judgment for the total amount set forth in the notice of violation without the need for any further administrative proceeding whatsoever.

Stipulated penalties shall begin to accrue immediately after the service upon Respondent of the final notice of noncompliance and shall cease to accrue as soon as the noncompliance has been cured. The stipulated penalties shall be payable thirty days after the noncompliance described in the final notice is cured; provided however, the payment shall be deferred during the pendency of any proceedings brought to enforce or challenge DEC's final notice of noncompliance (and any appeal or review thereof) and no payment shall be made if it is determined that Respondent did not violate the Order as alleged. Respondent may commence proceedings to challenge a final notice of noncompliance whether or not it has cured the alleged noncompliance subsequent to the issuance of the final notice by filing a motion to the Chief Administrative Law Judge, Office of Hearings. Respondent and DEC agree that any proceedings to enforce or challenge a final notice of noncompliance shall be commenced promptly after the service of the final notice upon the Respondent.

III. Prior Orders

The terms of any Orders on Consent Respondent has entered into with DEC pertaining to the Facilities shall continue in full force and effect unless they conflict with or are otherwise addressed by the terms of this Order, in which case the terms of this Order shall control.

IV. Binding Effect of Reports and Submissions

All reports and submissions made by any contractors or consultants of Respondent pursuant to this Order shall be deemed to bind Respondent, and no subsequent adoption of the contents of such reports or submissions shall be required to make such reports and submissions as binding on Respondent as if they had been submitted directly by Respondent.

V. Remediation

Pursuant to the terms of this Order, Respondent shall complete the activities as called for in the Schedule of Compliance and Appendices A - D attached hereto, which are hereby incorporated into and made a part of this Order. In the event any investigations called for in this Order, or otherwise, discover contamination which poses an imminent threat to human health or the environment, DEC specifically reserves the right to undertake any response action it deems fit.

VI. Hazardous Waste Determination

The Commissioner may at any time make a determination, in addition to determinations he has already made, pursuant to Title 13 of Article 27 of the ECL as to whether any site addressed in this Order, or areas in the vicinity of any such site, constitute a significant threat to the environment, and whether Respondent should be ordered to undertake a remedial program there. Any such determination shall be provided to Respondent by DEC in writing, and the prioritization schedule shall be amended to reflect such determination.

VII. Force Majeure

Respondent shall not be in default of compliance with this Order or any permit if Respondent is unable to comply with any provision of this Order or any permit because of an action of a national, state or local government, body or court or an act of God, war, strike, riot or catastrophe, or other reason which is completely beyond the control of the Respondent. The inability of Respondent to fund any activities required to be conducted pursuant to this Order shall not constitute Force Majeure. Respondent shall notify DEC in writing as soon as practicable upon obtaining knowledge of any such event, and shall request an appropriate modification to this Order. Relief under this clause shall not be available if Respondent fails timely to comply with this notice requirement.

VIII. Reports

All reports and submissions required herein, unless otherwise indicated, shall be made with one copy to the Central Office of DEC, 50 Wolf Road, Colonie, NY 12233, Attn.: Scott Menrath, P.E., and one copy of documents relating to the Watervliet facility to the Region 4 office of DEC, 1150 North Westcott Road, Schenectady, NY 12306, Attn.: Clifford Van Guilder, P. E., with one copy of documents relating to the Dunkirk facility to the Region 9 office of DEC, Attn: Frank Shattuck, P. E., 270 Michigan Avenue, Buffalo, New York, 14203, and one copy of all documents to Andrew Bellina, P.E., Chief, Hazardous Waste Facilities Branch, U.S.E.P.A. Region 2, 290 Broadway, New York, New York 10007-1866.

IX. Access

Respondent shall allow duly authorized representatives of DEC access to all facilities referred to in this Order, and any subject property, without prior notice, at such times as may be desirable or necessary in order for DEC to inspect and determine the status of Respondent's compliance with this Order, the ECL or NL.

X. Notice of Work

Respondent shall provide notice to DEC of the commencement of any field activities to be conducted pursuant to the terms of this Order at least ten business days in advance of such activities.

XI. Split Samples

DEC may, at its option, obtain for the purpose of comparative analysis "split samples" or "duplicate samples" of all substances and materials sampled by Respondent pursuant to this Order. If DEC undertakes any sampling at either facility, Respondent shall be entitled to split samples as well. As used herein, "split samples" shall mean whole samples divided into aliquots, and "duplicate samples" shall mean multiple samples, collected at the same time from exactly

the same location, using the same sampling apparatus, collected into identical containers prepared identically, filled to the same volume, and thereafter identically handled and preserved.

XII. Other Remedies

Nothing contained in this Order shall be construed as barring, diminishing, adjudicating or in any way affecting the following: (1) DEC's right to bring any action or proceeding against Respondent and/or any of Respondent's directors, officers, employees, servants, agents, successors and assigns with respect to claims for natural resource damages as a result of any release of petroleum or oil at or from either facility; or (2) DEC's, New York State's or the New York State Environmental Protection and Spill Compensation Fund's right to seek reimbursement of un-reimbursed costs or costs that have not been previously settled with the State associated with any unpermitted discharges at either facility.

XIII. Summary Abatement

This Order shall not be construed to prohibit the Commissioner or his duly authorized representative from exercising any summary abatement powers, either at common law or as granted pursuant to statute or regulation.

XIV. Binding Effect of Order

The provisions of this Order shall be deemed to bind Respondent, its officers, directors, agents, employees, contractors, successors and assigns, and all persons, firms and corporations acting under or for it, including, without limitation, any subsequent owner or operator of the facilities or part thereof.

XV. Conveyance

In the event that Respondent proposes to convey all or any part of its ownership interest in any site identified in this Order, or later identified pursuant to this Order, Respondent shall, not less than 60 days prior to the consummation of such proposed conveyance, notify DEC in writing of the identity of the transferee and of the nature and date of the proposed conveyance. In advance of such proposed conveyance, Respondent shall notify the transferee in writing, with a copy to DEC, of the applicability of this Order.

XVI. Indemnification

Respondent shall indemnify and hold DEC, New York State, and their representatives and employees harmless for all claims, suits, damages, and costs of every name and description arising out of or resulting from the fulfillment or attempted fulfillment of the provisions hereof by Respondent, its directors, officers, employees, servants, agents, successors or assigns, so long as they do not result from the gross negligence or willful misconduct of DEC or its representatives and employees.

XVII. Dispute Resolution

In the event that DEC determines that Respondent is in violation of the terms of this Order, DEC shall serve upon the Respondent a preliminary notice of violation specifying the alleged violation. Respondent shall have 5 days either to cure such violation and deliver to DEC a written statement showing it has done so, or to respond to the preliminary notice explaining why it believes there is no violation. If the asserted violation is cured within 5 business days, no further action shall be taken by DEC.

If Respondent asserts there is no violation, representatives of DEC and Respondent shall meet within 7 business days after delivery of Respondent's statement to seek to resolve their dispute, unless DEC advises the Respondent that it has determined that the matter already has been resolved to its satisfaction. If the dispute is not resolved at the meeting, and the DEC continues to believe that Respondent is in violation of the Order, it may issue a final notice of violation. It may then take whatever actions are permitted by law with respect to the alleged violation. Respondent reserves its right to contest any claim of violation.

Whenever DEC's approval of a submittal under the terms of this Order is required, DEC shall review such submittal to determine whether it was prepared, and whether the work done to generate the data and other information in the submittal was done, in accordance with this Order and applicable state and federal regulations and laws and generally accepted technical and scientific principles. DEC shall notify Respondent in writing of its approval or disapproval of the submittal. All DEC approved submittals shall be incorporated into and become an enforceable part of this Order.

If DEC disapproves a submittal, its notice shall specify the reasons for disapproval. Within ten (10) days of receipt of a notice of disapproval, Respondent may request a meeting with representatives of DEC to discuss the issues raised by the notice and this meeting shall take place within seven (7) business days of Respondent's request. Respondent shall make a revised submittal to DEC within forty-five (45) days after receiving written notice of disapproval that specifically addresses all of DEC's stated reasons for disapproving the first submittal; except, however, if Respondent has requested a meeting, the revised submittal (if one is still required by DEC) shall be due forty-five (45) days after the meeting takes place.

After receipt of the revised submittal from Respondent, DEC shall notify Respondent in writing of its approval or disapproval. If DEC approves the revised submittal, it shall be incorporated into and become an enforceable part of this Order. If DEC disapproves the revised submittal, it shall notify the Respondent in writing and specify its reasons. Its notice of disapproval of the revised submittal shall be deemed a final notice of violation. DEC may then take whatever it actions are permitted by law with respect to the alleged violation. Respondent reserves its right to contest any claim of violation.

XVIII. The Department shall not, except as otherwise provided herein, institute any action or proceeding for penalties or other relief pursuant to law on account of any of the violations alleged herein or for any violations occurring during the pendency of this Order, for as long as Respondent adheres to and fully complies with the terms, provisions and conditions of this Order.

XIX. Contribution Protection

So long as Respondent remains in compliance with the terms of this Order Respondent shall be deemed to have resolved its liability to others for purposes of contribution protection provided by CERCLA § 113(f)(2), except as otherwise provided herein, for remedial activities subject to CERCLA. The provisions of this section shall not apply to any action brought by DEC to enforce this Order. Neither this section, nor any other, shall in any way diminish or interfere with DEC's authority to proceed against any and all other parties that may have liability for any of the remedial measures contemplated in this Order, or that may otherwise be required, now or in the future, at the facilities.

XX. Effective Date

The effective date of this Order shall be the date it is executed by DEC.

XXI. Entire Agreement: Modification

This Order and its attachments and appendices constitute the entire agreement of the parties, and no provision of the agreement shall be deemed waived or otherwise modified except as is specifically set forth in a writing executed by the Commissioner or Regional Director of DEC indicating an intent to modify this Order.

DATED: Albany, New York

9/14, 1995

MICHAEL ZAGATA, COMMISSIONER
NEW YORK STATE DEPARTMENT OF
ENVIRONMENTAL CONSERVATION

CONSENT BY RESPONDENT

Respondent, without admitting or denying any liability for matters covered by this Order or any of the allegations set forth herein, hereby consents to the issuance and entry of the foregoing Order, waives its right to a hearing herein as provided by law, and agrees to be bound by the provisions, terms and conditions contained herein.

AL Tech Specialty Steel Corp.

By: T Parker

Title: President

ACKNOWLEDGEMENT

~~State of New York~~) PROVINCE OF ONTARIO

ss:

County of WELLAND)

On the 28 day of JULY , 1995, before me personally came Thomas Parker to me known, who being by me duly sworn did depose and say that he is duly authorized to execute the foregoing instrument on behalf of AL Tech Specialty Steel Corp.

Notary Public

APPENDIX A

SCHEDULE OF COMPLIANCE

I. Respondent's RCRA Permit (No. 4-0126-11/27-0) (as it exists or may be modified or renewed) sets out certain monitoring, investigation and remediation requirements for the Watervliet facility. Portions of the Permit that are consistent with this Order, including but not limited to the provisions regarding corrective measures implementation, are incorporated into this Order to the extent necessary to provide for the implementation of Respondent's Program on a basis consistent with the Prioritization Schedule, which is Appendix C hereto.

II. General

A. Quarterly Progress Reports

Respondent shall submit quarterly progress reports to DEC on activities conducted pursuant to this Order until termination of all such activities. Progress reports shall summarize all activities conducted under this Order, compliance dates achieved or missed, and the reasons therefor, and all results of such activities. Progress reports for each reporting period shall contain the following information:

1. A description of the activities completed;
2. Summaries of all findings made;
3. Summaries of all changes made;
4. Summaries of all contacts with representatives of the local community, public interest groups or State government concerning environmental matters;
5. Summaries of all problems or potential problems encountered and actions taken to rectify them;
6. Changes in personnel;
7. Projected work for the next reporting period;

The quarterly reports shall be due within forty-five (45) calendar days following the end of a quarter. For the purposes of this Order, quarterly reporting periods are defined as follows:

April 1 to June 30 - First (1st) Quarter July 1 to September 30 - Second (2nd) Quarter October 1 to December 31 Third (3rd) Quarter January 1 to March 31 - Fourth (4th) Quarter

B. Best Management Practices

Within 90 days of the effective date of this Order Respondent shall submit for DEC's review and approval an update of the existing Best Management Practices Plan for both facilities which comports with the requirements set out at 40 CFR § 125.104. DEC will either approve or disapprove the updated Plan, and if it is disapproved, shall notify Respondent of the reasons therefor in writing. Within 15 days of the receipt of any disapproval, Respondent shall submit to DEC a revised plan addressing the issues identified in the disapproval. If the revised plan is not approvable, DEC, at its option, may disapprove it or may approve it on condition that Respondent accept such modifications as may be specified by DEC to make it approvable. If Respondent does not accept such modifications, the revised plan shall be disapproved, and Respondent shall be in violation of this Order, unless Respondent contests the issue and invokes the Dispute Resolution section of this Order.

C. Accident Prevention/Emergency Response Plan

1. Accident Prevention Planning

a. Respondent shall develop and implement a program to reduce the risk of accidents involving the release to the environment of a toxic substance which is listed in both facilities' Tier I/Tier II submittal, which is Appendix E to this Order. In general, the program should include the prevention planning steps of safety audits, hazard analysis and risk reduction implementation.. Respondent shall provide to the department copies of prevention planning program documents, if any, that may now be in effect at its facilities. A prevention planning evaluation Plan shall be submitted to DEC for review and approval within 90 days of the effective date of this Order, and will be revised annually as necessary. DEC will either approve or disapprove the plan, and if the plan is disapproved, shall notify Respondent of the reasons therefor in writing. Within 15 days of the receipt of any disapproval, Respondent shall submit to DEC a revised plan addressing the issues identified in the disapproval. If the revised plan is not approvable, DEC, at its option, may disapprove it or may approve it on condition that Respondent accept such modifications as may be specified by DEC to make it approvable. If Respondent does not accept such modifications, the revised plan shall be disapproved, and Respondent shall be in violation of this Order, unless Respondent contests the issue and invokes the Dispute Resolution section of this Order. The plan, when implemented, shall include:

(1) an assessment of the potential for an accidental release of each listed toxic substance, including but not limited to any release caused by human error, equipment or structural failure or system malfunction;

(2) a review of any Process and Instrument Diagrams, Process Flow Diagrams, Standard Operating Procedures and other process-related documentation;

(3) a review of any facility hazard assessment documentation;

(4) a discussion of the processing, use and storage of a listed toxic substance at both facilities and associated accidental release scenarios;

(5) an identification of all critical product transfers and transformations associated with a listed toxic substance;

(6) an identification and evaluation of process operations which use a listed toxic substance;

(7) an identification of all process upset and/or over-pressure relief systems, relief system settings and substance release mitigation systems associated with a listed toxic substance;

(8) a description of, or in the event none exists, the establishment and description of, the specific safety precautions and maintenance schedules employed at either facility with respect to the storage, processing, handling or use of each listed toxic substance and the integrity of equipment used for these purposes;

(9) a description of the requirements for employee training to ensure that each employee with access to a listed toxic substance or process involving a listed toxic substance receives training on the proper methods of handling such substance prior to engaging in activities involving such substance; and

(10) a mechanism to ensure that employees adhere to the accident prevention program.

b. Respondent, upon completion of the above activities, shall submit for DEC's review and approval, a plan and implementation schedule, consistent with the provisions of this Order, for mitigating or reducing the risk, if any, of accidental releases of a listed toxic substance, including specific risk reduction or mitigation measures appropriate to each accidental release scenario identified pursuant to efforts described above. DEC will either approve or disapprove the plan, and if the plan is disapproved, shall notify Respondent of the reasons therefor in writing. Within 15 days of the receipt of any disapproval, Respondent shall submit to DEC a revised plan correcting the problems identified in the disapproval. If the revised plan is not approvable, DEC, at its option, may disapprove it or may approve it on condition that Respondent accept such modifications as may be specified by DEC to make it approvable. If Respondent does not accept such modifications, the revised plan shall be disapproved, and Respondent shall be in violation of this Order, unless Respondent contests the issue and invokes the Dispute Resolution section of this Order. This should, to the extent practicable and economically feasible, consider the following:

(1) equipment modifications;

(2) material substitutions;

(3) process changes;

(4) operational changes; and

(5) additional administrative safeguards.

D. Landfill Closure

Respondent has implemented a pilot program which included a metals reclamation program south of the extrusion operation at the Watervliet facility (the Pilot Program). This program evaluated the viability of a program to recycle from the landfill previously disposed of materials, evaluate alternatives to the Pilot Program, and provide for quarterly progress reports on such program.

Respondent shall make the determination of the viability of the recycling program for purposes of landfill closure. Net proceeds from the operation of the recycling program at the landfill, if undertaken, shall be applied to the costs of the closure of the landfill up to the limit of the total cost of closure. Based upon Respondent's determination regarding the recycling program for the landfill, Respondent shall, within a reasonable period of time, submit a plan for the recycling program and/or landfill closure. DEC will either approve or disapprove the plan, and if the plan is disapproved, shall notify Respondent of the reasons therefor in writing. Within 15 days of the receipt of any disapproval, Respondent shall submit to DEC a revised plan addressing the issues identified in the disapproval. If the revised plan is not approvable, the Department, at its option, may disapprove it or may approve it on condition that Respondent accept such modifications as may be specified by DEC to make it approvable. If Respondent does not accept such modifications, the revised plan shall be disapproved, and Respondent shall be in violation of this Order, unless Respondent contests the issue and invokes the Dispute Resolution section of this Order.

III. **SPDES**

A. Within 30 days of the effective date of this Order, Respondent shall complete its efforts to implement the following interim corrective actions and repairs detailed in the document entitled Preliminary Engineering Evaluation for Discharge to Albany County Sewer District, dated December 4, 1992: 1) modify the diversion manhole to divert all incoming wastewater from the pickle house to the surge pits; 2) repair the mixer in the flash mix tank to provide uniform mixing; 3) add metering pumps to better control dosage of reduction chemicals; 4) implement a polymer system that will provide proper polymer dilution, activation and dosage; 5) develop and implement a schedule for cleaning clarifier launder and weirs; 6) institute the practice of utilizing clarified effluent, where appropriate, in place of service water; 7) implement awareness program for all employees responsible for operation and maintenance of the Watervliet WWTP facility.

B. Respondent has applied for a SPDES permit modification for redirection of the wastewater treatment plant effluent from the Kromma Kill to the Hudson River.

C. Within 60 days of the effective date of this Order, Respondent shall commence any necessary bench scale studies or other pre-design studies which may be required for design purposes. Respondent shall also submit any necessary permit applications to construct air emission point sources associated with its wastewater treatment plant.

D. Within 150 days of the effective date of this Order, Respondent shall submit an engineering report, under the sign and seal of a Professional Engineer licensed to practice in New York State, which details the components needed to provide for discharge of wastewater to the Hudson River via the existing supply line and to upgrade the existing treatment plant to reliably meet the numerical effluent limits for discharge to the Hudson River, and all other permit conditions. The upgrade shall include the installation and operation of an ammonia stripper system. The Report shall include a schedule for the implementation of the recommendations. DEC will either approve or disapprove the engineering report, and if the report is disapproved, shall notify Respondent of the reasons therefor in writing. Within 15 days of the receipt of any disapproval, Respondent shall submit to DEC a revised report correcting the problems identified in the disapproval. If the revised report is not approvable, DEC, at its option, may disapprove it or may approve it on the condition that Respondent accept such modifications as may be specified by DEC to make it approvable. If Respondent does not accept such modifications, the revised plan shall be disapproved, and Respondent shall be in violation of this Order, unless Respondent contests the issue and invokes the Dispute Resolution section of this Order. Respondent shall implement the recommendations of the report pursuant to the approved schedule.

E. Upon commencement of operation of the ammonia stripper system, Respondent shall undertake a study to demonstrate the performance capability of the ammonia stripper system. The results of this study will be used by DEC to make a determination of a permit limitation for ammonia, which will be incorporated into a Department initiated modification of the SPDES permit. The study shall include, at a minimum, the following elements: weekly monitoring of ammonia concentration of the influent to and effluent from the ammonia stripper system, corresponding ambient air temperature, corresponding temperature and pH of leachate, flow through the ammonia stripper system, corresponding ammonia concentration of the outfall and corresponding flow at the outfall.

F. Within 365 days of the commencement of operation of the ammonia stripping system, Respondent shall conclude the study called for in the preceding paragraph.

G. Within 30 days of the conclusion of the study referred to in the preceding paragraph, Respondent shall submit a report to DEC that summarizes the data collected, evaluates those data and presents the overall efficiency of the proposed ammonia stripping system. DEC will either approve or disapprove the engineering report, and if the report is disapproved, shall notify Respondent of the reasons therefor in writing. Within 15 days of the

receipt of any disapproval, Respondent shall submit to DEC a revised report correcting the problems identified in the disapproval. If the revised report is not approvable, DEC, at its option, may disapprove it or may approve it on the condition that Respondent accept such modifications as may be specified by DEC to make it approvable. If Respondent does not accept such modifications, the revised plan shall be disapproved, and Respondent shall be in violation of this Order, unless Respondent contests the issue and invokes the Dispute Resolution section of this Order. Respondent shall implement the recommendations of the report pursuant to the approved schedule.

H. Respondent shall submit the results of Tier I Toxicity Testing of the Hudson River discharge quarterly for the first year after commencement of discharge to the Hudson River.

I. Within 120 days of effective date of this Order, Respondent shall submit an engineering report which evaluates the cause(s) of non-compliance with SPDES limits for the following violations:

daily max. conc. iron at sum of 003, 09A, 09B, and 012
30 day ave. limit for TSS at 09B
daily max. loading for TSS at 09B
daily max. conc. limit for TSS at 09A and 09B
daily max. loading limit for copper at 09A and 09B
daily max. loading for mercury at 09A and 09B
daily max conc. limit for chlorine at 012.

The engineering report must determine the cause(s) of and recommended corrective actions to eliminate the non-compliance. The report shall include a Schedule for implementation of corrective actions. DEC will either approve or disapprove the engineering report, and if the report is disapproved, shall notify Respondent of the reasons therefor in writing. Within 15 days of the receipt of any disapproval, Respondent shall submit to DEC a revised report correcting the problems identified in the disapproval. If the revised report is not approvable, DEC, at its option, may disapprove it or may approve it on the condition that Respondent accept such modifications as may be specified by DEC to make it approvable. If Respondent does not accept such modifications, the revised plan shall be disapproved, and Respondent shall be in violation of this Order, unless Respondent contests the issue and invokes the Dispute Resolution section of this Order. Respondent shall implement the recommendations of the report pursuant to the approved schedule, as it may be incorporated into the prioritization schedule.

APPENDIX B

CORRECTIVE ACTION REQUIREMENTS FOR SOLID WASTE MANAGEMENT UNITS AND AREAS OF CONCERN

AL TECH - DUNKIRK

A. APPLICABILITY

The provisions of this Appendix B apply to the Dunkirk facility only.

1. Summary of Corrective Action Process. Corrective action implementation includes: (a) the RCRA Facility Assessment ("RFA"); (b) the RCRA Facility Investigation ("RFI"); and (c) Corrective Measures ("CM"). The RFA is a three phase process that includes: a Preliminary Review ("PR"); a Visual Site Inspection ("VSI"); and a Sampling Visit ("SV"). The PR is a review of all available information on the individual SWMU(s) and AOC(s). During the PR, and in subsequent phases of the RFA, all of the media (i.e., soil, groundwater, surface water/sediment, air and subsurface gas) that could potentially be impacted by release(s) of hazardous waste, including hazardous constituents, are evaluated. Based on this evaluation, the SWMU(s)/AOC(s) will be characterized as to release potentials.

   Following the PR, a VSI is conducted during which all of the SWMU(s)/AOC(s) either previously or newly discovered, are observed. While performing this reconnaissance, any signs of spills or leakage, stained soil, stressed vegetation, unit deterioration, or any other conditions that may be indicative of a release are assessed. By means of these observations and the findings of the PR, the Commissioner may require the facility to conduct a Sampling Visit (SV) at the unit(s)/area(s) where the release(s) would be suspected.

   The SV can involve any or all of the previously described media at any given SWMU and or Area of Concern (AOC). For those units/areas where releases are clearly demonstrated in the PR and/or VSI, the SV can be avoided leaving the unit(s)/area(s) to be addressed in the RFI.

   The RFA includes preparing the RFA report. This report includes the findings of the various RFA activities and recommendations for further action at those units and areas with demonstrated releases of hazardous wastes, including hazardous constituents. In some cases, where an immediate threat to human health or the environment exists, interim corrective measures may be required.

Zoning Prohibition:

The motion clearly misconstrues MLR-92-2 particularly paragraph A. Complete Application, on the bottom of page 1. Staff raised this issue directly in two letters dated 12/15/92 to Mr Bridgeham, the Supervisor of the Town of Nassau, and to Mr Wetmore, President,Lane Construction. The staff position was a close paraphrasing of the policy. Any "issue" associated with the completeness of the application, based on incompatibility with zoning laws, is therefore a debate with respect to the appropriateness of MLR-92-2 , not the decision by staff to conform exactly to this directive.

It seems to me that if the Town disagreed with the staff position the issue should have been raised in response to that letter. The Town has been a participant in the Lead Agency process, the Scoping of the DEIS, and the review of the DEIS acting all along as if they were entertaining an application for a discretionary approval. Raising this issue at this time is disingenuous.

I anticipated that consistency with local plans would be an issue in my 1/9/95 memo to Clarke and Ostrov. As I understand the Town's Zoning a mine of up to 5 acres is allowable with appropriate plan approval. I suspect that Lane may believe that they can successfully overturn the Town's regulation. Were the ALJ to entertain this as an "issue", the Commissioner could make one of three choices.

a) Note that a record had been created for use by the Town in it's decision making process and base the Departments decision only on applicable DEC regulations.

b)Determine that the conflict with the local zoning ordinance must be resolved between the parties. He could issue a permit to mine 5 acres for a 1 or 2 year permit term. This might be consistent with the ordinance. He could include a condition that required the issue to be resolved before the permit authorized mining beyond the 5 acre limit.

c) He could deny the permit based on inconsistency with established local plans.

DRAFT

Subsequent to the "determination" studies are made which examine the potential impact of the action on the environment including but not limited to cultural resources. These analyses may include the discussion of alternatives to the action which may reduce or mitigate the impacts. These resultant record is either the justification for a negative declaration, or the preliminary scope for the DEIS required by a positive declaration. Where potentially significant impacts are identified and a DEIS is required the Department must provide a copy of the document to OPRHP. Where potential impacts to two or more resources, including cultural resources, are considered; any final decision must weigh the magnitude of the impacts to the each resource. No single resource can be considered alone because changes to the project, the most important impact avoidance tool in the review process, might cause a greater impact to one resource by avoiding another.

Part 14.09 describes a participatory process in which OPRHP acts as a resource advocate and provides comments to the agency responsible for the decision. The consultation must extend through the review process. Any determination that the analysis of cultural resources must precede completeness essentially requires a decision by the agency before the **SEQR** process is completed which would be inconsistent with 617.3(a)

Staff determined that cultural resources might be impacted by the action in the scoping process. The applicant was instructed to retain a consultant and contact OPRHP in early 1993. The record will show that OPRHP provided a determination to the Department on the project on 3/16/93. The applicants consultant, S. Oberon contacted OPRHP in the summer of 1994,after the stage 1 survey was completed. When potentially important archeological resources were found staff required a stage 2 study, and the Draft Permit requires the recovery of this site as a condition of issuing the permit.

The DEIS contains a survey of listed site on the register. Subsequent to the acceptance of the document OPRHP determined that several structures and a cemetery in Brainard were "eligible"for listing. OPRHP expressed concern with respect to the impact of the proposed mine on the viewshed from these "eligible" sites. The analysis of visual impacts, however, in another section of the DEIS appears to demonstrate that mining the portion of Snake Mountain consistent with Lane Construction's plans will not adversely effect the view from these structures. Subsequent to that discussion, see 7/24/95 OPRHP representatives asserted that the mine would devalue the structures based on blasting impacts. ..."even if structures are not damaged by the blast, perception of the blast will have a negative psychological effect, and may in the long run decrease property values of the historic district." This position repudiates their 6/15/95 position in which they recommended the following ...If monitoring demonstrates any damage to historic buildings and structures, blasting shall halt and consultation shall commence with OPRHP."

It is clear that OPRHP staff oppose the Lane mine. The DEC staff invited the OPRHP staff to file as potential parties and participate in the hearing process. They appear to prefer to stand on the shore and throw rocks at those of us who must make the voyage.

production related. Within broad limits however the technology associated with the control of emissions, (both direct and fugitive), for this type of facility is consistent in that water sprays applied to the crushers, and the travel corridors in the mine are the most effective controls.

These control measures were included in the DEIS and specific controls were required in the Draft Permit; thus the proposed activity, an estimate of the impacts and the staff's response to the proposal were available to the public as required.

SPDES Permit(s);

The applicant believes that the storm water from within the mine can be managed internally. The application/DEIS asserts that storm water will be discharged through cracks in the rocks and a surface discharge will not occur. Staff questioned this assumption based on experience in other quarries. The Geology of the Taconic Klippe, the overall geologic formation which includes Snake Hill however,has been described as... "unique"...,and ..."a storm- tossed sea of rocks". This complex geological context caused staff to be reluctant to assert that the applicants geologist was wrong and a surface discharge inevitable. As a further complicating factor it seemed possible that in the early stages of the mining operation that the storm water might be successfully discharged to subsurface cracks. In the context of a 5 year permit term it was judged possible that a discharge might not occur. As the cracks filled with fines and the surface area of the mine(and thus storm flows) increased the potential for a surface discharge was judged to be more probable.

Staff therefore decided to accept the applicants basic assumption that the storm water could be managed internally, but to include in the DEIS a discussion of the other alternative, a surface discharge from the mine. This together with a condition which prohibited a surface discharge without an industrial SPDES permit, gives the applicant the opportunity to demonstrate it's consultants are correct and also protects the Kinderhook Creek against unplanned and untreated discharges of waste water. Any site runoff from outside the quarry, areas being cleared for mining for example, are to be regulated through the General Storm Water SPDES permit.

The discussion of the surface discharge alternative has stimulated the discussion of the impacts of any possible discharge and the appropriate technologies to treat the potential discharge. It avoids the requirement of a permit for a discharge which may never be made.

Cultural Resources, section 14.09 of the NYS Historic Preservation Act:

A review of the referenced section of the Historic Preservation Act will demonstrate that the regulation requires consultation with OPRHP as early as may be practicable and ..."prior to....an action of approval"...If it appears that any aspect of the project will cause any change in the quality of specific cultural resources. If a DEIS is prepared the agency must provide a copy of that document to the commissioner of OPRHP. The "determination" referenced in Part 621.3(7) must be interpreted as **the initial finding that the evaluation of potential effects to cultural resources is required.** The determination is therefore an identification of the existence of known cultural resources in the vicinity of the action, and a preliminary assessment of the potential of the action to impact these resources.

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

MEMORANDUM

Draft For Discussion

TO: A. Lapinski

FROM: A. Henningson

DATE: August 7, 1995

SUBJECT: Remand Motion by potential Lane "parties"

The following is intended as resource material for your use in the reply to the briefs expected from the Town of Nassau, NUCC, and CALM.

Concurrent Filing of Applications:

6 NYCRR Part 621.3(a)(4) requires simultaneous submission of all necessary applications unless the applicant demonstrates to the Department's satisfaction that there is good cause not to do so. With respect to the discharges to air and surface waters associated with the proposed Lane Brainard Quarry, the applicant made reasonable representations to the Department that the air emissions would be below the regulated thresholds and that the discharge of water from the mine to surface water would not occur. The staff review of both potential air emissions and point source discharges to surface water determined that based on these representations, no permit(s) were required for the proposed activity(s). The determination made by staff at the time a completeness determination was made therefore, was not a deferral of an application, but , based on the applicants representations and staff calculations no permit(s) would be necessary.

Consistent with 6NYCRR Part 617, however, staff required the applicant to discuss in the project plans and DEIS any potential impacts to air quality and water quality (ground and surface),and any controls necessary to minimize adverse impacts to these resources. The proposed life of mine,(100 - 150 years) extends the analysis for an unusually long time period. Experience suggests that plans which extend this far into the future are inevitably subject to change. To deal with this uncertainty, the Draft Permit included conditions to regulate these impacts and provided that should subsequent activities approach or exceed regulatory thresholds that permit applications would be required.

Air Permit(s); The Mining application described portable processing facilities which would operate 12 hr./day, 9 months /year, and 5 or 6 days per week. Staff estimated that based on that operating schedule the processing equipment would operate between 2,808 and 2,340 hr. / year. These two numbers divided into the 350,000 tons/year maximum annual capacity equals between 124 and 149 tons / hour. Available guidance (attached 8/16/95,by L. Concra) indicated that portable facilities with the capacity for 150 tons / day or less did not require air emission permits.

A reevaluation of the air emissions subsequent to the Legislative Public Hearing, and subsequent submissions by the applicant resulted in a determination that air emission permits would be required. These submissions were made on 7/21/95 and provided to the service list on 7/25/95. The regulatory threshold for air emissions from mineral processing facilities is

(a) Description of precautions, of necessary equipment, etc., for site personnel; and

(b) Safety tasks required in event of systems failure.

6. Description of equipment; and

(a) Equipment identification;

(b) Installation of monitoring components;

(c) Maintenance of site equipment; and

(d) Replacement schedule for equipment and installed components.

7. Records and reporting mechanisms required.

(a) Daily operating logs;

(b) Laboratory records;

(c) Records for operating costs;

(d) Mechanism for reporting emergencies;

(e) Personnel and maintenance records; and

(f) Monthly/annual reports to Federal, State or local agencies. An initial Draft Operation and Maintenance Plan shall be submitted simultaneously with the Prefinal Design Document submission and the Final Operation and Maintenance Plan with the Final Design Documents.

C. Cost Estimate

The Respondent shall develop cost estimates for the purpose of assuring that the facility has the financial resources necessary to construct and implement the corrective measure. The cost estimate developed in the Corrective Measure Study shall be refined to reflect the more detailed/accurate design plans and specifications being developed. The cost estimate shall include both capital and operation and maintenance costs. An Initial Cost Estimate shall be submitted simultaneously with the Prefinal Design submission and the Final Cost Estimate with the Final Design Document.

D. **Project Schedule**

The Respondent shall develop a Project Schedule for construction and implementation of the corrective measure or measures which identifies timing for initiation and completion of all critical path tasks. The Respondent shall specifically identify dates for completion of the project and major interim milestones. An Initial Project Schedule shall be submitted simultaneously with the Prefinal Design Document submission and the Final Project Schedule with the Final Design Document.

E. **Construction Quality Assurance Objectives**

The Respondent shall identify and document the objectives and framework for the development of a construction quality assurance program including, but not limited to the following: responsibility and authority; personnel qualifications; inspection activities; sampling requirements; and documentation.

F. **Health and Safety Plan**

The Respondent shall modify the Health and Safety Plan developed for the RCRA Facility Investigation to address the activities to be performed at the facility to implement the corrective measure(s).

G. **Design Phases**

The design of the corrective measure(s) should include the phases outlined below.

1. Preliminary Design

   At the discretion of the Commissioner, the Respondent may be required to submit the Preliminary design when the design effort is approximately 30% complete. At this stage, the Respondent shall have field verified the existing conditions of the facility. The preliminary design shall reflect a level of effort such that the technical requirements of the project have been addressed and outlined so that they may be reviewed to determine if the final design will provide an operable and usable corrective measure. Supporting data and documentation shall be provided with the design documents defining the functional aspects of the program. The preliminary construction drawings by the Respondent shall reflect organization and clarity. The scope of the technical specifications shall be outlined in a manner reflecting the final specifications. The Respondent shall include, with the preliminary submission, design calculations reflecting the same percentage of completion as the designs they support.

2. Intermediate Design

Complex project design may necessitate review of the design documents between the preliminary and the prefinal/final design. At the discretion of the Commissioner, a design review may be required at 60% completion of the project. The intermediate design submittal should include the same elements as the prefinal design.

3. Correlating Plans and Specifications

General correlation between drawings and technical specifications, is a basic requirement of any set of working construction plans and specifications. Before submitting the project specifications, the Respondent shall:

(a) Coordinate and cross-check the specifications and drawings; and

(b) Complete the proofing of the edited specifications and required cross-checking of all drawings and specifications. These activities shall be completed prior to the 95% prefinal submittal to EPA and NYSDEC.

4. Equipment Start-Up and Operator Training

The Respondent shall prepare, and include in the technical specifications governing treatment systems, contractor requirements for providing: appropriate service visits by experienced personnel to supervise the installation, adjustment, start-up, and operation of the treatment systems, and training covering appropriate operational procedures once the start-up has been successfully accomplished.

5. Additional Studies

Corrective Measure Implementation may require additional studies to supplement the available technical data. At the direction of the Commissioner, for any such studies required, the Respondent shall furnish all services, including field work as required, materials, supplies, plant, labor, equipment, investigations, studies and superintendence. Sufficient sampling, testing and analysis shall be performed to optimize the required treatment and/or disposal operations and systems. There shall be an initial meeting of all principal personnel involved in the development of the program. The purpose will be to discuss objectives, resources, communication channels, role of personnel involved and orientation of the site, etc. The interim report shall present the results of the testing with the recommended treatment or disposal system (including options). A review conference shall be scheduled after the interim report has been reviewed by all interested parties. The final report of the testing shall include all data taken during the testing and a summary of the results of the studies.

6. Prefinal and Final Design

At the discretion of the Commissioner, Prefinal design documents may be required. In the event they are required, the Respondent shall submit the Prefinal/Final design documents in two parts. The first submission shall be at 95% completion of design (i.e., prefinal). After approval of the Prefinal submission, the Respondent shall execute the required revisions and submit the final documents (100% complete) with reproducible drawings and specifications.

The prefinal design submittal shall consist of the Design Plans and Specifications, Operation and Maintenance Plan, Capital and Operating and Maintenance Cost Estimate, Project Schedule, Quality Assurance Plan and Specifications for the Health and Safety Plan.

The final design submittal shall consist of the Final Design Plans and Specifications (100% complete), the Respondent's Final Construction Cost Estimate, the Final Operation and Maintenance Plan, Final Quality Assurance Plan, Final Project Schedule and Final Health and Safety Plan specifications. The quality of the design documents should be such that the Respondent would be able to include them in a bid package and invite contractors to submit bids for the construction project.

TASK XIV: CORRECTIVE MEASURE CONSTRUCTION

Following the Commissioner's approval of the final design, the Respondent shall develop and implement a construction quality assurance (CQA) program to ensure, with a reasonable degree of certainty, that a completed corrective measure(s) meets or exceeds all design criteria, plans, and specifications. The CQA plan is a facility specific document which must be submitted to the Commissioner for approval prior to the start of construction. At a minimum, the CQA plan should include the elements which are summarized below. Upon the Commissioner's approval of the CQA plan, the Respondent shall construct and implement the corrective measures in accordance with the approved design, schedule, and the CQA plan. The Respondent shall also implement the elements of the approved Operation and Maintenance Plan.

A. Responsibility and Authority

The responsibility and authority of all organizations (i.e., technical consultants, construction firms, etc.) and key personnel involved in the construction of the corrective measure shall be described fully in the CQA plan. The Respondent must identify a CQA officer and the necessary supporting inspection staff.

B. **Construction Quality Assurance Personnel Qualifications**

The qualifications of the CQA officer and supporting inspection personnel shall be presented in the CQA plan to demonstrate that they possess the training and experience necessary to fulfill their identified responsibilities.

C. **Inspection Activities**

The observations and tests that will be used to monitor the construction and/or installation of the components of the corrective measure(s) shall be summarized in the CQA plan. The plan shall include the scope and frequency of each type of inspection. Inspections shall verify compliance with all environmental requirements and include, but not be limited to, air quality and emissions monitoring records, waste disposal records (e.g., RCRA transportation manifests), etc. The inspection should also ensure compliance with all health and safety procedures. In addition to oversight inspections, the Respondent shall conduct the following activities:

1. Preconstruction Inspection and Meeting

   The Respondent shall conduct a preconstruction inspection and meeting to:

   (a) Review methods for documenting and reporting inspection data;

   (b) Review methods for distributing and storing documents and reports;

   (c) Review work area security and safety protocol;

   (d) Discuss any appropriate modifications of the construction quality assurance plan to ensure that site-specific considerations are addressed; and

   (e) Conduct a site walk-around to verify that the design criteria, plans, and specifications are understood and to review material and equipment storage locations. The preconstruction inspection and meeting shall be documented by a designated person and minutes should be transmitted to all parties.

2. Prefinal Inspection

   Upon preliminary project completion, the Respondent shall notify the Commissioner for the purposes of conducting a prefinal inspection. The prefinal inspection will consist of a walk-through inspection of the entire project site. The inspection is to determine whether the project is complete and consistent with the contract documents and the Commissioner-approved corrective measure. Any outstanding construction items discovered during the inspection will be identified and noted. Additionally, treatment equipment will be operationally tested by the Respondent. The Respondent will certify that the equipment has performed to meet the purpose and intent of the specifications. Retesting will be

completed where deficiencies are revealed. The prefinal inspection report should outline the outstanding construction items, actions required to resolve items, completion date for these items, and date for final inspection.

3. Final Inspection

Upon completion of any outstanding construction items, the Respondent shall notify the Commissioner for the purposes of conducting a final inspection. The final inspection will consist of a walk-through inspection of the project site. The prefinal inspection report will be used as a checklist with the final inspection focusing on the outstanding construction items identified in the prefinal inspection. Confirmation shall be made that outstanding items have been resolved.

D. **Sampling Requirements**

The sampling activities, sample size, sample locations, frequency of testing, acceptance and rejection criteria, and plans for correcting problems as addressed in the project specifications should be presented in the CQA plan.

E. **Documentation**

Reporting requirements for CQA activities shall be described in detail in the CQA plan. This should include such items as daily summary reports, inspection data sheets, problem identification and corrective measures reports, design acceptance reports, and final documentation. Provisions for the final storage of all records also should be presented in the CQA plan.

TASK XV: REPORTS

The Respondent shall prepare plans, specifications, and reports as set forth in Tasks XII through Task XV to document the design, construction, operation, maintenance, and monitoring of the corrective measure. The documentation shall include, but not be limited to the following:

A. **Progress**

The Respondent shall, at a minimum, provide the Commissioner with signed, quarterly progress reports during the design and construction phases and annual progress reports for operation and maintenance activities containing:

1. A description and estimate of the percentage of the CMI completed;

2. Summaries of all findings;

3. Summaries of all changes made in the CMI during the reporting period;

4. Summaries of all contacts with representative of the local community, public interest groups, or State or local government during the reporting period;

5. Summaries of all problems or potential problems encountered during the reporting period;

6. Actions being taken to rectify problems;

7. Changes in personnel during the reporting period;

8. Projected work for the next reporting period; and

9. Copies of daily reports, inspection reports, laboratory/monitoring data, etc.

B. **Draft**

1. The Respondent shall submit a draft Corrective Measure Implementation Program Plan as outlined in Task XII;

2. The Respondent shall submit draft Construction Plans and Specifications, Design Reports, Cost Estimates, Schedules, Operation and Maintenance Plans, and Study Reports as outlined in Task XIII;

3. The Respondent shall submit a draft Construction Quality Assurance Program Plan and Documentation as outlined in Task XIV; and

4. At the "completion" of the construction of the project, the Respondent shall submit a Corrective Measure Implementation Report to the Commissioner. The Report shall document that the project is consistent with the design specifications, and that the corrective measure is performing adequately. The Report shall include, but not be limited to the following elements:

   (a) Synopsis of the corrective measure and certification of the design and construction;

   (b) Explanation of any modifications to the plans and why these were necessary for the project;

   (c) Listing of the criteria, established before the corrective measure was initiated, for judging the functioning of the corrective measure and also explaining any modification to these criteria;

   (d) Results of facility monitoring indicating that the corrective measure will meet or exceed the performance criteria; and

(e) Explanation of the operation and maintenance (including monitoring) to be undertaken at the facility. This report should include all of the daily inspection summary reports, inspection summary reports, inspection data sheets, problem identification and corrective measure reports, block evaluation reports, photographic reporting data sheets, design engineers' acceptance reports, deviations from design and material specifications (with justifying documentation) and as-built drawings.

C. Final

The Respondent shall finalize the Corrective Measure Implementation Program Plan, Construction Plans and Specifications, Design Reports, Cost Estimates, Project Schedule, Operation and Maintenance Plan, Study Reports, Construction Quality Assurance Program Plan/Documentation and the Corrective Measure Implementation Report incorporating comments received on draft submissions. A summary of the information reporting requirements contained in the Corrective Measure Implementation Scope of Work is presented below:

[NOTE: Due dates are calculated from the effective date of this Order, unless otherwise specified.]

Facility Submission	Due Date
Draft Program Plans (Task XII)	90 days after selection of Corrective Measures
Final Program Plans	Date established by the Commissioner
Design Phases	
- Preliminary Design (30% completion)	As approved in Final Program Plan, if required.
- Intermediate Design (60% completion)	Same.
- Prefinal Design (95% completion)	Same.
- Final Design (100% completion)	As approved in Final Program Plan.
(Task XIII B through F) - Draft Submittals	Concurrent with Prefinal Design or date established by Commissioner.
- Final Submittals	Concurrent with Final Design.
Additional Studies: Interim Report (XIII G)	Date established by Commissioner (if necessary).
Additional Studies: Final Report (XIII G)	Date established by Commissioner (if necessary).
Draft Construction Quality Assurance Plan (XIV)	Ninety (90) days prior to construction.
Final Construction Quality Assurance Plan (XIV)	Date established by Commissioner.
Construction of Corrective Measure(s)	As approved in Final Design.
Prefinal Inspection Report (Task XIV)	Sixty (60) days after Prefinal Inspection.

Draft CMI Report (Task XV)	90 days after completion of construction.
Completion of Construction	As approved by Commissioner in the Corrective Measure Design.
Final CMI Report (Task XV)	Date established by the Commissioner.
Progress Reports for Tasks XII through XIV	Quarterly, per Attachment A, Condition II.A of this Order.
Progress Reports During Operation and Maintenance	Semi-Annually (as necessary)

APPENDIX BE

COMPONENTS REQUIRED FOR RCRA ANALYTICAL DATA SUBMITTED TO NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION*

AL Tech - Dunkirk

A Report Narrative should accompany each submission, summarizing the contents, results and all relevant circumstances of the work. It should describe the data validation and explain discrepancies.

A. Parameter requested.

B. Sample Number or Numbers, Matrix, and:

1. Date and time collected;
2. Date extracted and/or digested;
3. Date and time analyzed;
4. Chain of custody report and/or form, including confirmation of unbroken chain of custody, intact sample packaging and container seals and adequate temperature and/or other preservation; and
5. Field Sampling log.

C. Results [b,e,f,]

1. Sample Results;
2. Duplicate;
3. Blanks[a];
4. Matrix Spike; matrix spike duplicate; blank spike;
5. Surrogate recoveries, if applicable;
6. Standard reference materials results; and
7. Low level matrix spike recoveries, to confirm method detection limit (MDL) in the matrix.

D. Supporting QA/QC[b,d]

1. Sample preparation and analysis methods, and sample cleanup procedures;

2. Sample preparation and sample cleanup logs;

3. Analysis run logs;

4. Method detection limits, instrument detection limits[c], method used to determine MDL in the matrix;

5. Calibration data (correlation coefficient or percent relative standard deviation and calibration check sample results);

6. Percent solids for soils, sludges, sediments, and where otherwise applicable;

7. Example calculations;

8. Data validation procedures, results, and completed data validation checklists; and

9. Documentation which illustrates how blank water is determined to be analyte-free.

In addition to submitting the above, all sample data and its QA/QC data as specified in the approved methods and SW-846, 3rd edition (or more current edition), must be maintained accessible to NYSDEC either in hard copy or on magnetic tape or disk (computer data files). The data, if requested by NYSDEC, should be formatted as described in SW-846, 3rd edition, Chapter 1, where applicable. This requirement may be changed in the future to mandate computer data files, accessible to NYSDEC on request.

* Components for RCRA submissions for non-contract Lab Protocols. If CLP, then CLP deliverables are required, unless otherwise stated in the approved plan.

[a] The data should include all blanks (trip, equipment rinse, method and instrument blanks) as specified in the sampling and analysis plan, guidance and regulation.

[b] Supporting QA/QC should be specific to the RCRA samples analyzed.

[c] Every effort practicable must be made to achieve detection limits below regulatory limits and comparable to or better than the Practical Quantification Limits specified in the EPA-approved methods. In no case, will reporting limits above the specified PQL's be accepted without extensive and complete documentation to DEC.

d The supporting data should be provided to NYSDEC upon request, without restriction. Calibration data must include date and time of analysis.

e Frequencies of blanks, duplicates, spikes, surrogates, calibrations, standard reference materials, etc., should be as stated in the approved sampling and analysis plan, the approved analytical methods and the SW-846 3rd edition, Chapter 1, requirements. If there are any perceived conflicts, these should be resolved with NYSDEC in advance of sampling.

f Spiking for metals, organics or other parameters must be done before sample preparation (i.e., before digestions, extractions, etc.) unless otherwise stated in the approved plan. Furnace analysis for metals will still require post-digestion spikes on all samples analyzed by this technique.

APPENDIX BF

RAW DATA DELIVERABLES

For the purpose of data validation or confirming the data validation, DEC may select a number of samples for which raw data deliverables may be required in addition to the main data and QA/QC requirements enumerated in Appendix BE. This selection may be determined before the initial data report is received by DEC, or after review of the initial data report. Raw data deliverables may also be stated to be required in the approved sampling and analysis plan for any or all of the samples. If requested by DEC, at a minimum, the following supporting information and raw data must be submitted, for the selection of samples:

1. The Report Narrative pertaining to the selection of data, including a detailed description of any problems associated with the data and how the problems were resolved.

2. The Chain-of-Custody forms for the selected samples.

3. The laboratory I.D. numbers corresponding to the field sample numbers.

4. Sample preparation logs, analytical run logs, GPC and other sample cleanup logs and related chromatograms, fully labelled; documentation of sample changes or reactions during preparation; documentation of sample pH where applicable.

5. Key explaining notations on the data sheets that are relevant to the usage of the data; and explanation of data corrections or other anomalies, including all data voided.

6. Standards information sheets documenting the composition and concentrations of standards used in the analyses.

7. Standards preparation logs

8. Organics reconstructed in chromatograms (RICs), as described in the NYSDEC ASP.

9. Quantitation reports.

10. Copies of organics raw spectra and copies of background-subtracted mass spectra of detected target compounds and non-target compounds (TICs), labelled, as described in the NYSDEC ASP, and the corresponding standard mass spectra (or best-match spectra in the case of TICs).

11. Organics extracted in current profiles (EICPs) for samples and their related standards, fully labelled.

12. The standards raw data corresponding to the sample data for initial and continuing calibrations, with sources and preparation dates.

13. All the sample raw data and QC raw data pertaining to the samples, such as the data from instrument tunings, blanks, spikes (of matrices and blanks), detection limitation determinations in water and in the matrices, low-level spiking of matrices to confirm PQLs, interference check samples, ICP serial dilutions, CRDL standards, LCSs, post-digestion spikes, MSAs, linear range analyses, etc.

14. Calculations showing how final results are obtained from values printed on the quantitation reports; copies of formulas used (even by software packages), and values for all terms in the formulas.

15. Chromatograms and data system printouts for all standards (individual and multi-component) for the PCB and pesticides analyses.

16. All direct real-time instrument read-outs, fully labelled.

The raw data submission should contain all the information needed to confirm, recalculate and validate the reported results for the selected samples.

APPENDIX C

PRIORITIZATION SCHEDULE

Respondent shall carry out a Comprehensive Coordinated Environmental Remediation and Compliance Program (the Program) for the facilities which will result in the coordinated remediation of both facilities over time and as provided for in the financial assurance plan. The timing and sequence of the Program is delineated in this Prioritization Schedule, Appendix C, which is hereby incorporated into and made an enforceable part of the Order. Respondent shall carry out the actions as called for in the Prioritization Schedule. The Prioritization Schedule shall include those actions with capital costs in excess of $20,000 which are required for remediating AL Tech's Facilities or which are required to comply with this Order, the Permit or any new or existing environmental law or regulatory program at the Facilities. The Prioritization Schedule shall supersede all other requirements for the scheduling of remediation at the facilities, unless they conflict with the terms of the RCRA Permit, in which case the terms of the Permit shall control.

Proposals for modification of the Prioritization Schedule, or a proposal that no changes should be made to the Prioritization Schedule, shall be submitted by Respondent by each January 15 and July 15 subsequent to the effective date of this Order for DEC review and approval. DEC will either approve or disapprove the proposed modifications, or lack thereof, and if the proposal is disapproved, shall notify Respondent of the reasons therefor in writing. Within 15 days of the receipt of any disapproval, Respondent shall submit to DEC a revised proposal addressing the issues identified in the disapproval. If the revised proposal is not approvable, DEC, at its option, may disapprove it or may approve it on condition that Respondent accept such modifications as may be specified by DEC to make it approvable. If Respondent does not accept such modifications, the revised plan shall be disapproved, and Respondent shall be in violation of this Order, unless Respondent contests the issue and invokes the Dispute Resolution section of this Order.

This schedule, as it may be revised and modified as set out in the Order to which it is attached, sets forth the sequence and order of the Environmental Remediation and Environmental Capital projects at Al Tech's Facilities.

Environmental Remediation Projects are those projects at the facilities required to remediate the release of hazardous constituents which have been confirmed by a RCRA Facility Investigation or otherwise.

Environmental Capital Projects are those projects which are required to meet or maintain compliance with new or existing statutory or regulatory programs.

The factors which have been considered in establishing this Schedule include but may not be limited to:

1. Threat to Human Health/Environment
2. Statutory/Regulatory Requirements

3. Mobility of Constituents
4. Type of Constituents
5. Proximity to Receptors/Facility Boundary
6. Existing Operational Requirements
7. Need for Further Investigation/Research

Based upon the evaluation of known existing conditions at the Facilities, the Schedule is as follows:

TIER I:

Environmental Remediation Projects:

* Main Plant Groundwater Interim Corrective Measure - Watervliet
  Action: - Implement the Groundwater ICM workplan
  Factors: - Statutory/Regulation Requirements
  - Mobility of Contaminants
  Timeframe: Set out in Permit
  Approximate Cost Estimate: $100,000

* South Lagoon Stabilization - Watervliet
  Action: - Stabilize South Lagoon to prevent migration
  Factors: - Mobility of Constituents
  - Type of Constituents
  Timeframe: 9 months (weather dependent)
  Approximate Cost Estimate: $400,000

* RCRA Facility Investigations - Watervliet & Dunkirk
  Action: - Undertake RFI at the Facilities
  Factors:- Statutory/Regulatory Requirements
  - Need for Further Investigation Research
  Timeframe: 24 months (to complete both)
  Approximate Cost Estimate: $1,200,000 (Phase I)

Environmental Capital Projects:

* Wastewater Treatment Plant - Watervliet
  Action: - Upgrade Wastewater treatment plant discharge to Hudson
  Factors:- Statutory/Regulatory requirements
  - Proximity to Receptors/Facility Boundary
  Timeframe: Set out in Order
  Approximate Cost Estimate: $1,500,000

* Metals Reclamation - Watervliet
  Action: - Undertake metals reclamation project
  Factors: - Type of Constituent
  Timeframe: 1 year for development work
  Approximate Cost Estimate: $550,000

TIER II:

Environmental Remediation Projects:

* Oil and acid groundwater Remediation - Watervliet
  Action: - Remedy Oil Contamination Area (soil and groundwater)
  Factors: - Statutory/Regulatory Requirements
  - Mobility of Constituents
  Timeframe: 5 years
  Approximate Cost Estimate: $3,700,000

* Lucas Avenue West Pickle House - Dunkirk
  Action: - Close and decontaminate pickle house and ancillary facilities
  Factors: - Statutory/Regulatory Requirements
  - Proximity of Receptors
  - Type of Constituents
  Timeframe: 1 year
  Approximate Cost Estimate: $1,700,000

* South Lagoon Closure - Watervliet
  Action: - Close South Lagoon;
  - Address groundwater issues
  Factors:- Type of Constituents
  - Proximity to Receptors/Facility Boundary
  Timeframe: 10 years
  Approximate Cost Estimate: $100,000

* Waste Acid Pits - Watervliet
  Action: - Close waste acid pits; address soil and groundwater issues
  Factors:- Mobility of Constituents
  - Type of Constituents
  Timeframe: 9 months
  Approximate Cost Estimate: $800,000

* Landfill Closure - Watervliet

Action: - Close landfill (may include metals reclamation); address capping, groundwater and leachate issues
Factors:- Statutory/Regulatory Requirements
- Type of Constituents
- Mobility of Constituents
- Need for Further Investigation/ Research
Timeframe: 10 years
Approximate Cost Estimate (For RCRA closure with metals reclamation);
$1,500,000

* Willowbrook Pond Closure - Dunkirk
Action: - Close Willowbrook Pond
Factors: - Statutory/Regulatory Requirements
- Type of Constituents
- Mobility of Constituents
Timeframe: 1 year
Approximate Cost Estimate: $3,700,000

* Brigham Road Plant Waste Acid Pit - Dunkirk
Action: - Close waste acid pit;
Address soil contamination
Factors: - Type of Constituents
- Mobility of Constituents
Timeframe: 9 months
Approximate Cost Estimate: $300,000

Environmental Capital Projects:

* None

These projects constitute the Program for the Facilities at this time. Within 90 days of the receipt by Respondent of a written request therefor by DEC, Respondent shall submit engineering reports, prepared by a professional engineer licensed in the State of New York, for the completion of each specified Environmental Remediation Project or Environmental Capital Project, including a schedule. DEC will either approve or disapprove the engineering reports, and if they are disapproved, shall notify Respondent of the reasons therefor in writing. Within 15 days of the receipt of any disapproval, Respondent shall submit to DEC a revised engineering report addressing the issues identified in the disapproval. If the revised engineering report is not approvable, DEC, at its option, may disapprove it or may approve it on condition that Respondent accept such modifications as may be specified by DEC to make it approvable. If Respondent does not accept such modifications, the revised engineering report shall be disapproved, and Respondent shall be in violation of this Order, unless Respondent contests the issue and invokes the Dispute

Resolution section of this Order. Respondent shall implement the approved engineering reports, as called for in the approved engineering report.

Date: _____

Supersedes version dated: _____

APPENDIX D

AIR EMISSION REDUCTION PLAN

Respondent shall develop Air Emission Reduction Plans (the Plans) to evaluate methods to reduce the amount of chemicals released to the air from both facilities. The Plan shall address compounds addressed by the relevant requirements of the Clean Air Act, as amended and the regulations promulgated thereunder. Respondent shall submit the Plan for DEC review and approval within 180 days of the effective date of this Order. Respondent shall submit annual status reports on the Plan.

The Air Emission Reduction Plan shall include:

I. An evaluation of the amounts and types of Clean Air Act Amendment-listed air toxic chemicals emitted during the previous calendar year and an estimate of the amounts and types of such emissions to the air prior to on-site treatment. For each listed chemical emitted, the plan shall include: a simple flow or block diagram of the unit, process, operation or activity that resulted in the emission of toxic chemicals. The diagram must include at a minimum raw material inputs, major process steps/equipment and product and toxic chemical emissions to the air, and a written description of the diagram;

II. For each listed chemical identified pursuant to section I of this Appendix, an evaluation of the technical feasibility and economic practicability of implementing processes, technologies or operational changes to reduce or eliminate the emission of such chemicals. Such evaluation will consider the technical feasibility and economic practicability of:

A. substitution of less-toxic or non-toxic inputs to the production processes which result in a reduction in the volume and/or toxicity of emissions to the air;

B. modification or redesign of production processes, technologies or equipment which result in a reduction in the volume and/or toxicity of emissions to the air;

C. the use of closed loop reclamation, reuse or recycling processes or technologies which directly or indirectly recycle such toxic chemical emissions to the air back into the production process;

D. the use of on-site or off-site recycling technologies or processes that reduce the amount and/or toxicity of such emissions to the air that must be treated or disposed of.

III. The establishment and description of a program which is consistent with the requirements of the Clean Air Act Amendments and the regulations promulgated thereunder, this Order and the Prioritization Schedule for implementing the technically feasible and economically practicable emission reduction alternatives acceptable to Respondent which were identified under paragraph II of this Appendix A. Such program will be included in the Prioritization Schedule and should include:

A. the establishment of a general corporate, facility or organizational emission reduction policy;

B. a time schedule for implementing those technically feasible and economically practicable emission reduction technology, process or operational changes identified under paragraph II of this section;

C. designation of the office or department responsible for implementing the emission reduction plan;

D. a method of emission reduction measurement which will provide a basis for charting any reduction trends over time; and

E. training.

Tier Two
EMERGENCY AND HAZARDOUS CHEMICAL INVENTORY

Specific Information by Chemical

Facility Identification
Name: AL TECH SPECIALTY STEEL CORPORATION
Street: SPRING STREET ROAD
City: WATERVLIET County: ALBANY State: NY Zip: 12189
SIC Code: 3312
Dun & Brad Number: 06-054-5209

FOR OFFICIAL USE ONLY — ID # / Date Received

Owner/Operator Name:
Name: AL TECH SPECIALTY STEEL CORP. Phone: (518) 273-4110
Mail Address: SPRING STREET ROAD WATERVLIET, NY 12189

Emergency Contact
Name: THOMAS A. RAGOSIA Title: SR. ENVIRN. ENG.
Phone: (518) 273-4110 24 Hr. Phone: (518) 273-4110

Name: DENNIS ZURAKONSKI Title: DIR. ENVIRONMENTAL
Phone: (518) 273-4110 24 Hr. Phone: (518) 273-4110

Important: Read all instructions before completing form

Reporting Period: From January 1 to December 31, 19 94

☐ Check if information below is identical to the information submitted last year.

Chemical Description	Physical and Health Hazards (check all that apply)	Inventory	Storage Codes and Locations (Non-Confidential): Container Type / Temperature / Pressure	Storage Locations	Optional
CAS 00-7697-37-2 Trade Secret ☐ Chem. Name: NITRIC ACID Check all that apply: Pure ☐ Mix [X] Solid ☐ Liquid [X] Gas ☐ EHS [X] EHS Name: NITRIC ACID	Fire ☐ Sudden Release of Pressure ☐ Reactivity [X] Immediate (acute) [X] Delayed (chronic) [X]	Max. Daily Amount (code): 04 Avg. Daily Amount (code): 03 No. of Days On-site (days): 365	A 4 1 C 5 1 C 5 1 C 5 1	TANK FARM PICKLEHOUSE - TANK #9 PICKLEHOUSE - TANK #10 PICKLEHOUSE - TANK #13	☐
CAS 00-7664-93-9 Trade Secret ☐ Chem. Name: SULFURIC ACID Check all that apply: Pure ☐ Mix [X] Solid ☐ Liquid [X] Gas ☐ EHS [X] EHS Name: SULFURIC ACID	Fire ☐ Sudden Release of Pressure ☐ Reactivity [X] Immediate (acute) [X] Delayed (chronic) [X]	Max. Daily Amount (code): 04 Avg. Daily Amount (code): 03 No. of Days On-site (days): 365	A 4 1 C 5 1	TANK FARM PICKLEHOUSE - TANK #6	☐
CAS 00-7664-39-3 Trade Secret ☐ Chem. Name: HYDROFLUORIC ACID Check all that apply: Pure ☐ Mix [X] Solid ☐ Liquid [X] Gas ☐ EHS [X] EHS Name: HYDROGEN FLUORIDE	Fire ☐ Sudden Release of Pressure ☐ Reactivity [X] Immediate (acute) [X] Delayed (chronic) [X]	Max. Daily Amount (code): 04 Avg. Daily Amount (code): 03 No. of Days On-site (days): 365	A 4 1 C 5 1 C 5 1	TANK FARM PICKLEHOUSE - TANK #9 PICKLEHOUSE - TANK #10	☐

Certification *(Read and sign after completing all sections)*

I certify under penalty of law that I have personally examined and am familiar with the information submitted in pages one through 5, and that based on my inquiry of those individuals responsible for obtaining the information, I believe that the submitted information is true, accurate, and complete.

ROCCO TETA/PLANT MANAGER
Name and official title of owner/operator OR owner/operator's authorized representative

Signature: [signature] Date signed:

Optional Attachments
[X] I have attached a site plan
☐ I have attached a list of site coordinate abbreviations
☐ I have attached a description of dikes and other safeguard measures

APPENDIX E - 1

Tier Two
EMERGENCY AND HAZARDOUS CHEMICAL INVENTORY
Specific Information by Chemical

Facility Identification
Name: AL TECH SPECIALTY STEEL CORPORATION
Street: SPRING STREET ROAD
City: WATERVLIET County: ALBANY State: NY Zip: 12189
SIC Code: 3312
Dun & Brad Number: 06-054-5209

Owner/Operator Name
Name: AL TECH SPECIALTY STEEL CORP. Phone: (518) 273-4110
Mail Address: SPRING STREET ROAD, WATERVLIET, NY 12189

Emergency Contact
Name: THOMAS A. RAGOSTA Title: SR. ENVIRN. ENG.
Phone: (518) 273-4110 24 Hr. Phone: (518) 273-4110
Name: DENNIS ZURAKOWSKI Title: DIR. ENVIRNOMENTAL
Phone: (518) 273-4110 24 Hr. Phone: (518) 273-4110

Important: Read all instructions before completing form

Reporting Period: From January 1 to December 31, 19 94

☐ Check if information below is identical to the information submitted last year.

Chemical Description	Physical and Health Hazards (check all that apply)	Inventory	Storage Codes and Locations (Non-Confidential)
CAS: [blank] Trade Secret ☐ Chem. Name: SODIUM HYDROXIDE Check all that apply: ☐ Pure ☒ Mix ☒ Solid ☒ Liquid ☐ Gas ☐ EHS EHS Name:	☐ Fire ☐ Sudden Release of Pressure ☒ Reactivity ☒ Immediate (acute) ☒ Delayed (chronic)	03 Max. Daily Amount (code) 03 Avg. Daily Amount (code) 365 No. of Days On-site (days)	D 4 1 PICKLEHOUSE C 5 1 PICKLEHOUSE - TANK #17
CAS: 007440-50-8 Trade Secret ☐ Chem. Name: Check all that apply: ☒ Pure ☒ Mix ☒ Solid ☐ Liquid ☐ Gas ☐ EHS EHS Name:	☐ Fire ☐ Sudden Release of Pressure ☐ Reactivity ☐ Immediate (acute) ☒ Delayed (chronic)	04 Max. Daily Amount (code) 03 Avg. Daily Amount (code) 365 No. of Days On-site (days)	R 4 1 MELT SHOP STORAGE BIN
CAS: 007440-02-0 Trade Secret ☐ Chem. Name: NICKEL Check all that apply: ☒ Pure ☒ Mix ☒ Solid ☐ Liquid ☐ Gas ☐ EHS EHS Name:	☐ Fire ☐ Sudden Release of Pressure ☐ Reactivity ☐ Immediate (acute) ☒ Delayed (chronic)	02 Max. Daily Amount (code) 03 Avg. Daily Amount (code) 365 No. of Days On-site (days)	R 4 1 MELT SHOP STORAGE BIN

Certification (Read and sign after completing all sections)
I certify under penalty of law that I have personally examined and am familiar with the information submitted in pages one through 57, and that based on my inquiry of those individuals responsible for obtaining the information, I believe that the submitted information is true, accurate, and complete.

ROCCO TETA/PLANT MANAGER
Name and official title of owner/operator OR owner/operator's authorized representative — Signature — Date signed

Optional Attachments
☒ I have attached a site plan
☐ I have attached a list of site coordinate abbreviations
☐ I have attached a description of dikes and other safeguard measures

Tier Two
EMERGENCY AND HAZARDOUS CHEMICAL INVENTORY
Specific Information by Chemical

Form Approved OMB No. 2050-0072

Facility Identification
Name: AL TECH SPECIALTY STEEL CORPORATION
Street: SPRING STREET ROAD
City: WATERVLIET County: ALBANY State: NY Zip: 12189
SIC Code: 3312 Dun & Brad Number: 06-054-6209

FOR OFFICIAL USE ONLY — ID # / Date Received

Owner/Operator Name
Name: AL TECH SPECIALTY STEEL CORP. Phone: (518) 273-4110
Mail Address: SPRING STREET ROAD, WATERVLIET, NY 12189

Emergency Contact
Name: THOMAS A. RAGOSTA Title: SR. ENVIRN. ENG.
Phone: (518) 273-4110 24 Hr. Phone: (518) 273-4110

Name: DENNIS ZUBAKOWSKI Title: DIR. ENVIRONMENTAL
Phone: (518) 273-4110 24 Hr. Phone: (518) 273-4110

Important: Read all instructions before completing form

Reporting Period: From January 1 to December 31, 19 94

☐ Check if information below is identical to the information submitted last year.

Chemical Description	Physical and Health Hazards (check all that apply)	Inventory	Storage Codes and Locations (Non-Confidential): Container / Pressure / Temperature	Storage Locations	Optional
CAS: 00-7440-47-3; Trade Secret: ☐; Chem. Name: ; Check all that apply: Pure ☐ Mix [X] Solid [X] Liquid ☐ Gas ☐ EHS ☐; EHS Name:	Fire ☐; Sudden Release of Pressure ☐; Reactivity ☐; Immediate (acute) ☐; Delayed (chronic) [X]	Max. Daily Amount (code): 05; Avg. Daily Amount (code): 04; No. of Days On-site (days): 365	R 4 1	MELT SHOP STORAGE BIN	☐
CAS: NA; Trade Secret: ☐; Chem. Name: K/061 EMISSION CONTROL DUST; Check all that apply: Pure ☐ Mix ☐ Solid [X] Liquid ☐ Gas ☐ EHS ☐; EHS Name:	Fire ☐; Sudden Release of Pressure ☐; Reactivity ☐; Immediate (acute) ☐; Delayed (chronic) [X]	Max. Daily Amount (code): 04; Avg. Daily Amount (code): 03; No. of Days On-site (days): 365	A (H) 4 1	MELT SHOP BAGHOUSE	☐
CAS: NA; Trade Secret: ☐; Chem. Name: K062 SPENT PICKLE ACIDS; Check all that apply: Pure ☐ Mix [X] Solid ☐ Liquid [X] Gas ☐ EHS ☐; EHS Name:	Fire ☐; Sudden Release of Pressure ☐; Reactivity [X]; Immediate (acute) [X]; Delayed (chronic) [X]	Max. Daily Amount (code): 01; Avg. Daily Amount (code): 03; No. of Days On-site (days): 365	C 4 1	PICKLEHOUSE - SPENT ACIDS TANKS	☐

Certification (Read and sign after completing all sections)

I certify under penalty of law that I have personally examined and am familiar with the information submitted in pages one through 9, and that based on my inquiry of those individuals responsible for obtaining the information, I believe that the submitted information is true, accurate, and complete.

ROCCO TETA/PLANT MANAGER

Name and official title of owner/operator OR owner/operator's authorized representative — Signature — Date signed

Optional Attachments
[X] I have attached a site plan
☐ I have attached a list of site coordinate abbreviations
☐ I have attached a description of dikes and other safeguard measures

Tier Two

EMERGENCY AND HAZARDOUS CHEMICAL INVENTORY

Specific Information by Chemical

Facility Identification

Name: AL TECH SPECIALTY STEEL CORPORATION
Street: SPRING STREET ROAD
City: WATERVLIET County: ALBARY State: NY Zip: 12189
SIC Code: 3312 Dun & Brad Number: 06-054-5209

Owner/Operator Name

Name: AL TECH SPECIALTY STEEL CORP. Phone: (518) 273-4110
Mail Address: SPRING STREET ROAD, WATERVLIET, NY 12189

Emergency Contact

Name: THOMAS A. RAGOSTA Title: SR. ENVIRN. ENG.
Phone: (518) 273-4110 24 Hr. Phone: (518) 273-4110

Name: DENNIS ZURAKOWSKI Title: DIR. ENVIRNOMENTAL
Phone: (518) 273-4110 24 Hr. Phone: (518) 273-4110

For Official Use Only — ID # / Date Received

Important: Read all instructions before completing form

Reporting Period: From January 1 to December 31, 19 94

☐ Check if information below is identical to the information submitted last year.

Chemical Description	Physical and Health Hazards (check all that apply)	Inventory	Storage Codes (Container / Pressure / Temperature)	Storage Locations (Non-Confidential)	Optional
CAS: N A; Trade Secret ☐; Chem. Name: LIME STABLIZED WASTE PICKLE LIQUOR SLUDGE; Check all that apply: Pure ☐ Mix [X] Solid [X] Liquid ☐ Gas ☐ EHS ☐; EHS Name:	Fire ☐ Sudden Release of Pressure ☐ Reactivity ☐ Immediate (acute) ☐ Delayed (chronic) [X]	Max. Daily Amount (code): 04; Avg. Daily Amount (code): 03; No. of Days On-site (days): 365	K 4 1	WASTE WATER TREATMENT PLANT	☐
CAS: 00744 0-37-1; Trade Secret ☐; Chem. Name: ARGON (LIQUID); Check all that apply: Pure [X] Mix ☐ Solid ☐ Liquid [X] Gas ☐ EHS ☐; EHS Name:	Fire ☐ Sudden Release of Pressure [X] Reactivity ☐ Immediate (acute) [X] Delayed (chronic) ☐	Max. Daily Amount (code): 04; Avg. Daily Amount (code): 03; No. of Days On-site (days): 365	A 7 2	ADJACENT MELT SHOP - NORTHWEST SIDE	☐
CAS: 00778 2-44-7; Trade Secret ☐; Chem. Name: OXYGEN (LIQUID); Check all that apply: Pure [X] Mix ☐ Solid ☐ Liquid [X] Gas ☐ EHS ☐; EHS Name:	Fire [X] Sudden Release of Pressure [X] Reactivity ☐ Immediate (acute) [X] Delayed (chronic) ☐	Max. Daily Amount (code): 04; Avg. Daily Amount (code): 03; No. of Days On-site (days): 365	A 7 2	ADJACENT MELT SHOP - NORTHWEST SIDE	☐

Certification *(Read and sign after completing all sections)*

I certify under penalty of law that I have personally examined and am familiar with the information submitted in pages one through 5, and that based on my inquiry of those individuals responsible for obtaining the information, I believe that the submitted information is true, accurate, and complete.

ROCCO TETA/PLANT MANAGER

Name and official title of owner/operator OR owner/operator's authorized representative — Signature — Date signed

Optional Attachments

[X] I have attached a site plan
☐ I have attached a list of site coordinate abbreviations
☐ I have attached a description of dikes and other safeguard measures

APPENDIX E - 4

Page 2 of 2 pages

Tier Two
EMERGENCY AND HAZARDOUS CHEMICAL INVENTORY
Specific Information by Chemical

Facility Identification
Name: AL TECH SPECIALTY STEEL CORPORATION
Street: SPRING STREET ROAD
City: WATERVLIET County: ALBANY State: NY Zip: 12189
SIC Code: 3312 Dun & Brad Number: 06-054-5209

Owner/Operator Name
Name: AL TECH SPECIALTY STEEL CORP. Phone: (518) 273-4110
Mail Address: SPRING STREET ROAD, WATERVLIET, NY 12189

Emergency Contact
Name: THOMAS A. RAGOSTA Title: SR. ENVIRN. ENG.
Phone: (518) 273-4110 24 Hr. Phone: (518) 273-4110
Name: DENNIS ZURAKOWSKI Title: DIR. ENVIRONMENTAL
Phone: (518) 273-4110 24 Hr. Phone: (518) 273-4110

FOR OFFICIAL USE ONLY — ID # / Date Received

Important: Read all instructions before completing form

Reporting Period: From January 1 to December 31, 19 94

☐ Check if information below is identical to the information submitted last year.

Chemical Description	Physical and Health Hazards (check all that apply)	Inventory	Storage Codes and Locations (Non-Confidential)	Optional
CAS 007727-37-9 Trade Secret ☐ Chem. Name: NITROGEN (LIQUID) Check all that apply: [X] Pure ☐ Mix ☐ Solid [X] Liquid ☐ Gas ☐ EHS EHS Name:	☐ Fire [X] Sudden Release of Pressure ☐ Reactivity [X] Immediate (acute) ☐ Delayed (chronic)	04 Max. Daily Amount (code) 03 Avg. Daily Amount (code) 365 No. of Days On-site (days)	Container Type: A; Pressure: 7; Temperature: 2 Storage Locations: ADJACENT TO MELT SHOP NORTHWEST SIDE	☐
CAS ☐ Trade Secret ☐ Chem. Name: Check all that apply: ☐ Pure ☐ Mix ☐ Solid ☐ Liquid ☐ Gas ☐ EHS EHS Name:	☐ Fire ☐ Sudden Release of Pressure ☐ Reactivity ☐ Immediate (acute) ☐ Delayed (chronic)	Max. Daily Amount (code) Avg. Daily Amount (code) No. of Days On-site (days)		☐
CAS ☐ Trade Secret ☐ Chem. Name: Check all that apply: ☐ Pure ☐ Mix ☐ Solid ☐ Liquid ☐ Gas ☐ EHS EHS Name:	☐ Fire ☐ Sudden Release of Pressure ☐ Reactivity ☐ Immediate (acute) ☐ Delayed (chronic)	Max. Daily Amount (code) Avg. Daily Amount (code) No. of Days On-site (days)		☐

Certification *(Read and sign after completing all sections)*

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ROCCO TETA/PLANT MANAGER
Name and official title of owner/operator OR owner/operator's authorized representative

Signature: [signature] Date signed:

Optional Attachments
[X] I have attached a site plan
☐ I have attached a list of site coordinate abbreviations
☐ I have attached a description of dikes and other safeguard measures

Tier Two

EMERGENCY AND HAZARDOUS CHEMICAL INVENTORY

Specific Information by Chemical

Name: AL Tech Specialty Steel Corporation
Street: Willowbrook Avenue
City: Dunkirk County: Chautauqua State: NY Zip: 14048
SIC Code: 3315 / 3398
Dun & Bradstreet Number: 02-021-5529

FOR OFFICIAL USE ONLY
ID #
Date Received

Owner/Operator Name
Name: AL Tech Specialty Steel Corp. Phone: (716) 366-1000
Mail Address: P.O. Box 152, Dunkirk, New York 14048

Emergency Contact
Name: Michael Guziec Title: Environmental Engineer
Phone: (716) 366-1000 Ext. 317 24 Hr. Phone: (716) 366-9028
Name: William McKee Title: Plant Manager
Phone: (716) 366-1000 Ext. 200 24 Hr. Phone:

Important: Read all instructions before completing form

Reporting Period: From January 1 to December 31, 1994

☐ Check if information below is identical to the information submitted last year

Chemical Description

CAS: 007697-37-2 Trade Secret ☐
Chem Name: Nitric Acid
Check all that apply: Pure ☒ Mix ☒ Solid ☐ Liquid ☐ Gas ☐ EHS ☒
EHS Name: Nitric Acid

CAS: Trade Secret ☐
Chem Name: Hydrogen
Check all that apply: Pure ☒ Mix ☐ Solid ☐ Liquid ☐ Gas ☒ EHS ☐
EHS Name:

CAS: Trade Secret ☐
Chem Name: Kolene
Check all that apply: Pure ☒ Mix ☒ Solid ☒ Liquid ☒ Gas ☐ EHS ☐
EHS Name:

Physical and Health Hazards

(check all that apply)

	Fire	Sudden Release of Pressure	Reactivity	Immediate (Acute)	Delayed (Chronic)
Nitric Acid			X	X	X
Hydrogen	X	X			
Kolene			X	X	X

Inventory

	Max. Daily Amount (code)	Avg. Daily Amount (code)	No. of Days On site (days)
Nitric Acid	05	04	365
Hydrogen	04	04	365
Kolene	05	05	365

Storage Codes and Locations (Non-Confidential)

	Container Type	Temperature	Pressure	Storage Locations	Confid.
Nitric Acid	A	4	1	BPS Pickle Room (outdoors)	☐
	G	4	1		
				Met Lab	
				Max. 122,660 lbs.	
				Avg. 48,093 lbs.	
Hydrogen	A	7	2	Lucas Avenue Plant Northeast Side (outdoors)	☐
				Max. 25,000 lbs.	
				Avg. 12,000 lbs.	
Kolene	J	4	1	BPS	☐
	C	5	1	BPS Pickle Room	
	C	4	1	Lucas Avenue Pickle Room	
	C	4	1	BRP Pickle Room	
				Max. 460,000 lbs.	
				Avg. 420,000 lbs.	

Certification *(Read and sign after completing all sections)*

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Michael P. Guziec, Environmental Engineer

Name and official title of owner/operator or owner/operator's authorized representative — Signature — Date

Optional Attachments

☒ I have attached a site plan
☐ I have attached a list of site description abbreviations
☐ I have attached a description of

Tier Two

EMERGENCY AND HAZARDOUS CHEMICAL INVENTORY

Specific information by Chemical

Facility Identification

Name: AL Tech Specialty Steel Corporation
Street: Willowbrook Avenue
City: Dunkirk County: Chautauqua State: NY Zip: 14048
SIC Code: 3315 / 3398
Dun & Bradstreet Number: 02-021-5529

FOR OFFICIAL USE ONLY
ID #
Date Received

Owner/Operator Name

Name: AL Tech Specialty Steel Corp Phone: (716) 366-1000
Mail Address: P.O. Box 152, Dunkirk, New York 14048

Emergency Contact

Name: Michael Guziec Title: Environmental Engineer
Phone: (716) 366-1000 Ext. 317 24 Hr. Phone: (716) 366-9028
Name: William McKee Title: Plant Manager
Phone: (716) 366-1000 Ext. 200 24 Hr. Phone:

Important: Read all instructions before completing form

Reporting Period: From January 1 to December 31, 19 94

☐ Check if information below is identical to the information submitted last year

Chemical Description

Chemical 1

CAS: 007446-09-5 Trade Secret: ☐
Chem Name: Sulfur Dioxide
Check all that apply: Pure ☐ Mix ☐ Solid ☐ Liquid ☐ Gas ☒ Haz ☒
EHS Name: Sulfur Dioxide

Chemical 2

CAS: Trade Secret: ☐
Chem Name: Diesel Fuel
Check all that apply: Pure ☐ Mix ☐ Solid ☐ Liquid ☒ Gas ☐ Haz ☐
EHS Name:

Chemical 3

CAS: 007664-39-3 Trade Secret: ☐
Chem Name: Hydrogen Fluoride
Check all that apply: Pure ☒ Mix ☒ Solid ☐ Liquid ☒ Gas ☐ Haz ☒
EHS Name: Hydrofluoric Acid

Physical and Health Hazards (check all that apply)

Chemical 1	Chemical 2	Chemical 3	
☐	☐	☐	Fire
☒	☐	☐	Sudden Release of Pressure
☒	☐	☐	Reactivity
☒	☐	☒	Immediate (acute)
☐	☐	☒	Delayed (chronic)

Inventory

	Chemical 1	Chemical 2	Chemical 3
Max. Daily Amount (code)	03	04	04
Avg. Daily Amount (code)	03	04	04
No. of Days On-site (days)	365	365	365

Storage Codes and Locations (Non-Confidential)

Storage Locations

Container Type	Temperature	Pressure	Chemical 1	Chemical 2	Chemical 3
	L	4	2	A	4	1	A	4	1
Storage Location			Wastewater Treatment (indoors)	Howard Avenue (outdoors)	BFS Pickle Room (indoors)
Max.			7000 lbs.	69,200 lbs.	35,000 lbs.
Avg.			6000 lbs.	36,000 lbs.	15,366 lbs.

Optional: ☐ ☐ ☐

Certification *(Read and sign after completing all sections)*

I certify under penalty of law that I have personally examined and am familiar with the information submitted in pages one through 5, and that based on my inquiry of those individuals responsible for obtaining the information, I believe that the submitted information is true, accurate and complete.

Michael P. Guziec, Environmental Engineer

Name and official title of owner/operator or senior management official — Signature — Date

Optional Attachments

☒ I have attached a site plan
☐ I have attached a list of site coordination contacts
☐ I have attached _____

APPENDIX E - 7

Tier Two

EMERGENCY AND HAZARDOUS CHEMICAL INVENTORY

Specific Information by Chemical

Name: AL Tech Specialty Steel Corporation
Street: Willowbrook Avenue
City: Dunkirk County: Chautauqua State: NY Zip: 14048
SIC Code: 3316 3399 Dun & Bradstreet Number: 02-021-5529

FOR OFFICIAL USE ONLY
ID #
Date Received

Name: AL Tech Specialty Steel Corp. Phone: (716) 366-1000
Mail Address: P.O. Box 152, Dunkirk, New York 14048

Emergency Contact
Name: Michael Guziec Title: Environmental Engineer
Phone: (716) 366-1000 Ext. 317 24 Hr. Phone: (716) 366-9028
Name: William McKee Title: Plant Manager
Phone: (716) 366-1000 Ext. 200 24 Hr. Phone:

Important: Read all instructions before completing form | Reporting Period: From January 1 to December 31, 1994 | ☐ Check if information below is identical to the information submitted last year

Chemical Description	Physical and Health Hazards (check all that apply)	Inventory	Storage Codes and Locations (Non-Confidential) — Container Type / Temperature / Pressure / Storage Locations	Optional
CAS 007664-93-9 ☐ Trade Secret Chem Name: Sulfuric Acid Check all that apply: ☐ Pure ☒ Mix ☐ Solid ☒ Liquid ☐ Gas ☒ EHS EHS Name: Sulfuric Acid	☐ Fire ☐ Sudden Release of Pressure ☒ Reactivity ☒ Immediate (acute) ☒ Delayed (chronic)	05 Max. Daily Amount (code) 04 Avg Daily Amount (code) 365 No. of Days On-site (days)	A 4 1 — BFS Pickle Room (outdoors) Max. 154,095 lbs. Avg. 97,846 lbs.	☐
CAS: ☐ Trade Secret Chem Name: K062 Pickle Liquor Check all that apply: ☐ Pure ☒ Mix ☐ Solid ☒ Liquid ☐ Gas ☐ EHS EHS Name:	☐ Fire ☐ Sudden Release of Pressure ☒ Reactivity ☒ Immediate (acute) ☒ Delayed (chronic)	06 Max. Daily Amount (code) 06 Avg. Daily Amount (code) 365 No. of Days On-site (days)	A 4 1 — Wastewater Treatment A 5 1 — BFS Pickle Room Max. 3,500,000 lbs. Avg. 2,300,000 lbs.	☐
CAS: ☐ Trade Secret Chem Name: Check all that apply: ☐ Pure ☐ Mix ☐ Solid ☐ Liquid ☐ Gas ☐ EHS EHS Name:	☐ Fire ☐ Sudden Release of Pressure ☐ Reactivity ☐ Immediate (acute) ☐ Delayed (chronic)	☐☐ Max. Daily Amount (code) ☐☐ Avg Daily Amount (code) ☐☐☐ No. of Days On-site (days)		☐

Certification *(Read and sign after completing all sections)*

I certify under penalty of law that I have personally examined and am familiar with the information submitted in pages one through [illegible] and that based on my inquiry of those individuals responsible for obtaining the information, I believe that the submitted information is true, accurate and complete.

Michael P. Guziec, Environmental Engineer

Name and official title of owner/operator or senior official responsible for facility | Signature | Date signed

Optional Attachments
☒ I have attached a site plan
☐ I have attached a list of site coordination abbreviations
☐ I have attached a description of [illegible]

2. Contamination Characterization Plan

The Respondent shall submit a workplan on collecting analytical data to supplement existing data on groundwater, soils, surface water, sediment, air and subsurface gas contamination. This data shall be sufficient to define the nature, extent, origin, direction, and rate of movement of contaminant plume(s) in the environmental medium impacted by the release(s) from the SWMU(s) and AOC(s).

(a) Groundwater Contamination

The Respondent shall conduct a program to characterize any plume(s) of contamination at the facility and any plume(s) that have migrated off-site. The program shall provide relevant information on groundwater contamination that should include, but not be limited to the following facts:

(i) A description of the horizontal and vertical extent of any immiscible or dissolved plume(s);

(ii) The horizontal and vertical direction of contamination movement;

(iii) The velocity of contaminant movement;

(iv) The horizontal and vertical concentration profiles of contaminant constituents in the plume(s);

(v) An evaluation of factors influencing the plume movement, specific contaminant movement, and specific contaminant transformation (e.g., physical, chemical, biological, etc.); and

(vi) An extrapolation of future contaminant movement.

(b) Soil Contamination

The Respondent shall conduct a program to characterize the contamination of the soil and rock units above the water table in the vicinity of the contaminant release(s). The program shall provide relevant information on soil contamination that should include, but not be limited to the following facts:

(i) A description of the vertical and horizontal extent of contamination.

(ii) A description of relevant contaminant chemical properties within the contaminant source area and plume. This includes contaminant solubility, speciation, adsorption, leachability,

exchange capacity, biodegradability, hydrolysis, photolysis, oxidation and other factors that might affect contaminant migration and transformation.

(iii) Specific contaminant concentrations.

(iv) The velocity and direction of contaminant movement.

(v) An extrapolation of future contaminant movement.

(c) Surface-Water and Sediment Contamination

The Respondent shall conduct a program to characterize the contamination in surface-water bodies resulting from the contaminant release(s) at the facility. The program shall provide relevant information on surface water and sediment contamination that shall include, but not be limited to the following facts:

(i) A description of the horizontal and vertical extent of any immiscible or dissolved plume(s) originating from the facility, and the extent of contamination in underlying sediments;

(ii) The horizontal and vertical direction of contaminant movement;

(iii) The contaminant velocity;

(iv) An evaluation of the physical, biological and chemical factors influencing contaminant movement;

(v) An extrapolation of future contaminant movement; and

(vi) The toxicity of the sediment and adjacent water column to aquatic life.

(d) Air Contamination

The Respondent shall conduct a program to characterize the particulate and gaseous contaminants released into the atmosphere. The program shall provide relevant information on air emissions that should include, but not be limited to the following facts:

(i) A description of the horizontal and vertical direction and velocity of contaminant movement;

(ii) The rate and amount of the release; and

(iii) The chemical and physical composition of the contaminant(s) released, including horizontal and vertical concentration profiles.

(e) Subsurface Gas Contamination

The Respondent shall conduct a program to characterize subsurface gas contamination in the soil. The program shall provide relevant information on subsurface gas contamination that should include, but not be limited to the following facts:

(i) A description of the horizontal and vertical extent of subsurface gas migration;

(ii) The chemical composition of the gases being emitted;

(iii) The rate, amount, and density of the gases being emitted; and

(iv) Horizontal and vertical concentration profiles of the subsurface gases emitted.

F. TASK V: INVESTIGATION ANALYSIS

The Respondent shall prepare an analysis and summary of all facility investigations and their results. The objective of this task shall be to ensure that the investigation data are sufficient in quality (e.g., quality assurance procedures have been followed) and quantity to describe the nature, rate, and extent of contamination, potential threat to human health and/or the environment, and to support the Corrective Measures Study.

1. Data Analysis

The Respondent shall analyze all facility investigation data outlined in Task IV and prepare a report on the nature, rate, and extent of contamination at the facility including sources and migration pathways. The report shall describe the nature and extent of contamination (qualitative/ quantitative) in relation to background levels indicative for the area.

2. Protection Standards

The Respondent shall identify all relevant and applicable standards and action levels (e.g., health based guidance values) for the protection of human health and the environment.

G. TASK VI: LABORATORY AND BENCH SCALE STUDIES

The Respondent shall conduct laboratory and/or bench scale studies to determine the applicability of a corrective measure technology or technologies to facility conditions. The Respondent shall analyze the technologies, based on literature review, vendor contracts, and past experience to determine the testing requirements.

The Respondent shall develop a testing plan identifying the type(s) and goal(s) of the study(s), the level of effort needed, and the procedures to be used for data management and interpretation.

Upon completion of the testing, the Respondent shall evaluate the testing results to assess the technology or technologies with respect to the site-specific questions identified in the test plan.

The Respondent shall prepare a report summarizing the testing program and its results, both positive and negative.

H. TASK VII: REPORTS

1. Progress Reports

The Respondent shall provide signed progress reports as required by the Compliance Schedule in Appendix A of the Order on Consent.

2. Draft and Final Reports

The Respondent shall prepare a RCRA Facility Investigation ("RFI") Report as required by Attachment B to this Order on Consent. The RFI Report shall present all information gathered under the approved RFI Workplan.

Appendix BC

SCOPE OF WORK FOR A CORRECTIVE MEASURE STUDY

AL Tech - Dunkirk

A. PURPOSE

The purpose of this Corrective Measure Study (CMS) is to develop and evaluate the corrective action alternative or alternatives and to recommend the corrective measure or measures to be taken. AL Tech will furnish the personnel, materials, and services necessary to prepare the corrective measure study, except as otherwise specified.

The information presented in this Appendix shall serve as guidance for developing component plans and supporting reports to accomplish the intended purpose. This guidance can be further tailored to meet site-specific circumstances. The Respondent should consult with DEC on any significant deviations from this guidance prior to implementation.

B. SCOPE

The Corrective Measure Study consists of four tasks:

Task I: Identification and Development of the Corrective Measure Alternative or Alternatives

A. Description of Current Situation
B. Establishment of Corrective Action Objectives
C. Screening of Corrective Measures Technologies
D. Identification of the Corrective Measure Alternative or Alternatives

Task II: Evaluation of the Corrective Measure Alternative or Alternatives

A. Technical/Environmental/Human Health/Institutional
B. Cost Estimate

Task III: Justification and Recommendation of the Corrective Measure or Measures

A. Technical
B. Human Health
C. Environmental

Task IV: Reports

A. Progress
B. Final

C. TASK I: IDENTIFICATION AND DEVELOPMENT OF THE CORRECTIVE ACTION ALTERNATIVE OR ALTERNATIVES

Based on the results of the RCRA Facility Investigation and consideration of the identified Preliminary Corrective Measure Technologies, the Respondent shall identify, screen, and develop the alternative or alternatives for removal, containment, treatment and/or other remediation of the contamination based on the objectives established for the corrective action.

1. Description of Current Situation

The Respondent shall submit an update to the information describing the current situation at the facility and the known nature and extent of the contamination as documented by the RCRA Facility Investigation Report. The Respondent shall provide an update to information presented in Task I of the RFI to the Commissioner regarding previous response activities and any interim measures which have or are being implemented at the facility. The Respondent shall also make a facility-specific statement of the purpose for the response, based on the results of the RCRA Facility Investigation ("RFI"). The statement of purpose should identify the actual or potential exposure pathways that should be addressed by corrective measures.

2. Establishment of Corrective Action Objectives

The Respondent, in conjunction with DEC, shall establish site specific objectives for the corrective action. These objectives shall be based on public health and environmental criteria, information gathered during the RFI, EPA and New York State guidance, and the requirements of any applicable federal and state statutes. At a minimum, all corrective actions concerning groundwater releases from regulated units must be consistent with, and as stringent as, those required under 6NYCRR 373-2.6.

3. Screening of Corrective Measure Technologies

The Respondent shall review the results of the RFI and reassess the technologies specified in Task II and identify additional technologies which are applicable at the facility. The Respondent shall screen the preliminary corrective measure technologies identified in Task II of the RFI and any supplemental technologies to eliminate those that may prove infeasible to implement, that rely on technologies unlikely to perform satisfactorily or reliably, or that do not achieve the corrective measure objective within a reasonable time period. This screening process focuses on eliminating those technologies which have severe limitations for a given set of waste and site-specific conditions. The screening step may also eliminate technologies based on inherent technology limitations. Site, waste,

and technology characteristics which are used to screen inapplicable technologies are described in more detail below:

(a) Site Characteristics

Site data should be reviewed to identify conditions that may limit or promote the use of certain technologies. Technologies whose use is clearly precluded by site characteristics should be eliminated from further consideration;

(b) Waste Characteristics

Identification of waste characteristics that limit the effectiveness or feasibility of technologies is an important part of the screening process. Technologies clearly limited by these waste characteristics should be eliminated from consideration. Waste characteristics particularly affect the feasibility of in-situ methods, direct treatment methods, and land disposal (on/off-site); and

(c) Technology Limitations

During the screening process, the level of technology development, performance record, and inherent construction, operation, and maintenance problems should be identified for each technology considered. Technologies that are unreliable, perform poorly, or are not fully demonstrated may be eliminated in the screening process. For example, certain treatment methods have been developed to a point where they can be implemented in the field without extensive technology transfer or development.

4. Identification of the Corrective Measure Alternative or Alternatives

The Respondent shall develop the corrective measure alternative or alternatives based on the corrective action objectives and analysis of the Preliminary Corrective Measure Technologies, as presented in Task II of the RFI and as supplemented following the preparation of the RFI Final Report. The Respondent shall rely on engineering practice to determine which of the previously identified technologies appear most suitable. Technologies can be combined to form the overall corrective action alternative or alternatives. The alternative or alternatives developed should represent a workable number of option(s) that each appear to adequately address all problems and corrective action objectives. Each alternative may consist of an individual technology or a combination of technologies. The Respondent shall document the reasons for excluding technologies, identified in Task II, as supplemented in the development of the alternative or alternatives.

D. TASK II: EVALUATION OF THE CORRECTIVE MEASURE ALTERNATIVE OR ALTERNATIVES

The Respondent shall describe each corrective measure alternative that passes through the Initial Screening in Task I of Appendix BC and evaluate each corrective measure alternative and it's components. The evaluation shall be based on technical, environmental, human health and institutional concerns. The Respondent shall also develop cost estimates of each corrective measure.

1. Technical/Environmental/Human Health/Institutional

The Respondent shall provide a description of each corrective measure alternative which includes, but is not limited to the following: preliminary process flow sheets; preliminary sizing and type of construction for buildings and structures; and rough quantities of utilities required. The Respondent shall evaluate each alternative in the four following areas:

(a) Technical

The Respondent shall evaluate each corrective measure alternative based on performance, reliability, implementability and safety.

(i) The Respondent shall evaluate performance based on the effectiveness and useful life of the corrective measure:

(1) Effectiveness shall be evaluated in terms of the ability to perform intended functions, such as containment, diversion, removal, destruction, or treatment. The effectiveness of each corrective measure shall be determined either through design specifications or by performance evaluation. Any specific waste or site characteristics which could potentially impede effectiveness shall be considered. The evaluation should also consider the effectiveness of combinations of technologies; and

(2) Useful life is defined as the length of time the level of effectiveness can be maintained. Most corrective measure technologies, with the exception of destruction, deteriorate with time. Often, deterioration can be slowed through proper system operation and maintenance, but the technology eventually may require replacement. Each corrective measure shall be evaluated in terms of the projected service lives of its component technologies. Resource availability in the future life of the technology,

as well as appropriateness of the technologies, must be considered in estimating the useful life of the project.

(ii) The Respondent shall provide information on the reliability of each corrective measure including their operation and maintenance requirements and their demonstrated reliability:

(1) Operation and maintenance requirements include the frequency and complexity of necessary operation and maintenance. Technologies requiring frequent or complex operation and maintenance activities should be regarded as less reliable than technologies requiring little or straight forward operation and maintenance. The availability of labor and materials to meet these requirements shall also be considered; and

(2) Demonstrated and expected reliability is a way of measuring the risk and effect of failure. The Respondent should evaluate whether the technologies have been used effectively under analogous conditions; whether the combination of technologies have been used together effectively; whether failure of any one technology has an immediate impact on receptors; and whether the corrective measure has the flexibility to deal with uncontrollable changes.

(iii) The Respondent shall describe the implementability of each corrective measure including the relative ease of installation (constructability) and the time required to achieve a given level of response:

(1) Constructability is determined by conditions both internal and external to the facility conditions and include such items as location of underground utilities, depth of water table, heterogeneity of subsurface materials, and location of the facility (i.e., remote location v. a congested urban area). The Respondent shall evaluate what measures can be taken to facilitate construction under these conditions. External factors which affect implementation include the need for special permits or agreements, equipment availability, and the location of suitable off-site treatment or disposal facilities; and

(2) Time has two components that shall be addressed: (1) the time it takes to implement a corrective measure; and (2) the time it takes to actually see beneficial results.

Beneficial results are defined as the reduction of contaminants to some acceptable, pre-established level.

(iv) The Respondent shall evaluate each corrective measure alternative with regard to safety. This evaluation shall include threats to the safety of nearby communities and environments as well as those to workers during implementation. Among the factors to consider are fire, explosion, and exposure to hazardous substances.

(b) Environmental

The Respondent shall perform an Environmental Assessment for each alternative. The Environmental Assessment shall focus on the facility conditions and pathways of contamination actually addressed by each alternative. The Environmental Assessment for each alternative will include, at a minimum, an evaluation of: the short and long term beneficial and adverse effects of the response alternative; any adverse effects on environmentally sensitive areas; and an analysis of measures to mitigate adverse effects.

(c) Human Health

The Respondent shall assess each alternative in terms of the extent to which it mitigates short and long term potential exposure to any residual contamination and protects human health both during and after implementation of the corrective measure. The assessment will describe the levels and characterizations of contaminants on-site, potential exposure routes, and potentially affected populations. Each alternative will be evaluated to determine the level of exposure to contaminants and the reduction over time. For management of mitigation measures, the relative reduction of impact will be determined by comparing residual levels of each alternative with existing criteria, standards, or guidelines.

(d) Institutional

The Respondent shall assess relevant institutional needs for each alternative. Specifically, the effects of Federal, State, and local environmental and public health standards, regulations, guidance, advisories, ordinances, or community relations on the design, operation, and timing of each alternative.

2. Cost Estimate

The Respondent shall develop an estimate of the cost of each corrective measure alternative (and for each phase or segment of the alternative). The cost estimate shall include both capital, operation and maintenance costs.

(a) Capital costs consist of direct (construction) and indirect (nonconstruction and overhead) costs.

(i) Direct capital costs include:

(1) Construction costs: Costs of materials, labor (including fringe benefits and worker's compensation), and equipment required to install the corrective measure;

(2) Equipment costs: Costs of treatment, containment, disposal and/or service equipment necessary to implement the action; these materials remain until the corrective action is complete;

(3) Land and site-development costs: Expenses associated with purchase of land and development of existing property; and

(4) Buildings and services costs: Costs of process and nonprocess buildings, utility connections, purchased services, and disposal costs.

(ii) Indirect capital costs include:

(1) Engineering expenses: Costs of administration, design, construction supervision, drafting, and testing of corrective measure alternatives;

(2) Legal fees and license or permit costs: Administrative and technical costs necessary to obtain licenses and permits for installation and operation;

(3) Startup and shakedown costs: Costs incurred during corrective measure startup; and

(4) Contingency allowances: Funds to cover costs resulting from unforeseen circumstances, such as adverse weather conditions, strikes, and inadequate facility characterization.

(b) Operation and maintenance costs are post-construction costs necessary to ensure continued effectiveness of a corrective measure. The Respondent shall consider the following operation and maintenance cost components;

(i) Operating labor costs: Wages, salaries, training, overhead, and fringe benefits associated with the labor needed for post-construction operations;

(ii) Maintenance materials and labor costs: Costs for labor, parts, and other resources required for routine maintenance of facilities and equipment;

(iii) Auxiliary materials and energy: Costs of such items as chemicals and electricity for treatment plant operations, water and sewer service, and fuel;

(iv) Purchased services: Sampling costs, laboratory fees, and professional fees for which the need can be predicted;

(v) Disposal and treatment costs: Costs of transporting, treating, and disposing of waste materials, such as treatment plant residues generated during operations;

(vi) Administrative costs: Costs associated with administration of corrective measure operation and maintenance not included under other categories;

(vii) Insurance, taxes, and licensing costs: Costs of such items as liability and sudden accidental insurance; real estate taxes on purchased land or rights-of-way; licensing fees for certain technologies; and permit renewal and reporting costs;

(viii) Maintenance reserve and contingency funds: Annual payments into escrow funds to cover (1) costs of anticipated replacement or rebuilding of equipment and (2) any large unanticipated operation and maintenance costs; and

(ix) Other costs: Items that do not fit any of the above categories.

E. TASK III: JUSTIFICATION AND RECOMMENDATION OF THE CORRECTIVE MEASURE OR MEASURES

The Respondent shall justify and recommend a corrective measure alternative using technical, human health, and environmental criteria. This recommendation shall include summary tables which allow the alternative or alternatives to be understood easily. Tradeoffs among health risks, environmental effects, and other pertinent factors shall be highlighted. The Commissioner will select the corrective measure alternative or alternatives to be implemented based on the results of Tasks II and III of Appendix C. At a minimum, the following criteria will be used to justify the final corrective measure or measures.

1. Technical

(a) Performance - corrective measure or measures which are most effective at performing their intended functions and maintaining the performance over extended periods of time will be given preference;

(b) Reliability - corrective measure or measures which do not require frequent or complex operation and maintenance activities and that have proven effective under waste and facility conditions similar to those anticipated will be given preference;

(c) Implementability - corrective measure or measures which can be constructed and operated to reduce levels of contamination to attain or exceed applicable standards in the shortest period of time will be preferred; and

(d) Safety - corrective measure or measures which pose the least threat to the safety of nearby residents and environments as well as workers during implementation will be preferred.

2. Human Health

The corrective measure or measures must comply with existing EPA and/or State criteria, standards, or guidelines for the protection of human health. Corrective measures which provide the minimum level of exposure to contaminants and the maximum reduction in exposure with time are preferred.

3. Environmental

The corrective measure or measures posing the least adverse impact (or greatest improvement) over the shortest period of time on the environment will be favored.

F. TASK IV: REPORTS

1. Progress Reports

The Respondent shall provide the Commissioner with signed progress reports as required by Condition II.A. of Attachment A to this Order on Consent.

2. Corrective Measures Study ("CMS") Final Report

The Respondent shall prepare a CMS Final Report as required by Attachment B to this Order on Consent. The CMS Final Report shall include all information gathered under the approved CMS Workplan. The CMS Final Report shall at a minimum include:

(a) A description of the facility;

(i) Site topographic map and preliminary layouts.

(b) A summary of the corrective measure or measures;

(i) Description of the corrective measure or measures and rationale for selection;

(ii) Performance expectations;

(iii) Preliminary design criteria and rationale;

(iv) General operation and maintenance requirements; and

(v) Long-term monitoring requirements.

(c) A summary of the RCRA Facility Investigation and impact on the selected corrective measure or measures;

(i) Field studies (groundwater, surface-water, soil, air); and

(ii) Laboratory studies (bench scale, pilot scale).

(d) Design and Implementation Precautions;

(i) Special technical problems;

(ii) Additional engineering data required;

(iii) Permits and regulatory requirements;

(iv) Access, easements, right-of-way;

(v) Health and safety requirements; and

(vi) Community relations activities.

(e) Cost Estimates and Schedules;

(i) Capital cost estimate;

(ii) Operation and maintenance cost estimate; and

(iii) Project schedule (design, construction, operation).

Appendix BD

SCOPE OF WORK FOR THE CORRECTIVE MEASURE IMPLEMENTATION

AL Tech - Dunkirk

PURPOSE

The purpose of this Corrective Measure Implementation (CMI) program is to design, construct, operate, maintain, and monitor the performance of the corrective measure or measures selected to protect human health and the environment. The Respondent will furnish all personnel, materials and services necessary for the implementation of the corrective measure or measures.

The information presented in this Appendix shall serve as guidance for developing component plans and supporting reports to accomplish the intended purpose. This guidance can be tailored to meet site-specific circumstances. The Respondent should consult with DEC on any significant deviations from this guidance prior to implementation.

SCOPE

The Corrective Measure Implementation program consists of four tasks;

Task XII: Corrective Measure Implementation Program Plan

1. Program Management Plan
2. Community Relations Plan

Task XIII: Corrective Measure Design

1. Design Plans and Specifications
2. Operation and Maintenance Plan
3. Cost Estimate
4. Project Schedule
5. Construction Quality Assurance Objectives
6. Health and Safety Plan
7. Design Phases

Task XIV: Corrective Measure Construction

1. Responsibility and Authority
2. Construction Quality Assurance Personnel Qualifications
3. Inspection Activities
4. Sampling Requirements
5. Documentation

Task XV: Reports

1. Progress
2. Draft
3. Final

TASK XII: CORRECTIVE MEASURE IMPLEMENTATION PROGRAM PLAN

The Respondent shall prepare a Corrective Measure Implementation Program Plan. This program will include the development and implementation of several plans, which require concurrent preparation. It may be necessary to revise plans as the work is performed to focus efforts on a particular problem. The Program Plan includes the following:

A. Program Management Plan

The Respondent shall prepare a Program Management Plan which will document the overall management strategy for performing the design, construction, operation, maintenance, and monitoring of corrective measure(s). The plan shall document the responsibility and authority of all organizations and key personnel involved with the implementation. The Program Management Plan will also include a description of qualifications of key personnel directing the Corrective Measure Implementation Program, including contractor personnel.

B. Community Relations Plan

The Respondent shall revise the Community Relations Plan to include any changes in the level of concern of information needs to the community during design and construction activities.

1. Specific activities which must be conducted during the design stage are the following:

   (a) Revise the facility Community Relations Plan to reflect knowledge of citizen concerns and involvement at this stage of the process; and

   (b) Prepare and distribute a public notice and an updated fact sheet at the completion of engineering design.

2. Specific activities to be conducted during the construction stage could be the following: Depending on citizen interest at a facility at this point in the corrective action process, community relations activities could range from group meetings to fact sheets on the technical status.

TASK XIII: CORRECTIVE MEASURE DESIGN

The Respondent shall prepare final construction plans and specifications to implement the corrective measure(s) at the facility as defined in the Corrective Measure Study.

A. Design Plans and Specifications

The Respondent shall develop clear and comprehensive design plans and specifications which include, but are not limited to, the following:

1. Discussion of the design strategy and the design basis, including;

   (a) Compliance with all applicable or relevant environmental and public health standards; and

   (b) Minimization of environmental and public impacts.

2. Discussion of the technical factors of importance including:

   (a) Use of currently accepted environmental control measures and technology;

   (b) The constructability of the design; and

   (c) Use of currently acceptable construction practices and techniques.

3. Description of assumptions made and detailed justification of these assumptions;

4. Discussion of the possible sources of error and references to possible operation and maintenance problems;

5. Detailed drawings of the proposed design including;

   (a) Qualitative flow sheets; and

   (b) Quantitative flow sheets.

6. Tables listing equipment and specifications;

7. Tables giving material and energy balances;

8. Appendices including;

   (a) Sample calculations (one example presented and explained clearly for significant or unique design calculations);

   (b) Derivation of equations essential to understanding the report; and

(c) Results of laboratory or field tests.

B. **Operation and Maintenance Plan**

The Respondent shall prepare an Operation and Maintenance Plan to cover both implementation and long term maintenance of the corrective measure. The plan shall be composed of the following elements:

1. Description of normal operation and maintenance (O&M);

   (a) Description of tasks for operation;

   (b) Description of tasks for maintenance;

   (c) Description of prescribed treatment or operation conditions; and

   (d) Schedule showing frequency of each O&M task.

2. Description of potential operating problems;

   (a) Description and analysis of potential operation problems;

   (b) Sources of information regarding problems; and

   (c) Common and/or anticipated remedies.

3. Description of routine monitoring and laboratory testing;

   (a) Description of monitoring tasks;

   (b) Description of required laboratory tests and their interpretation;

   (c) Required QA/QC; and

   (d) Schedule of monitoring frequency and date, if appropriate, when monitoring may cease.

4. Description of alternate O&M;

   (a) Should systems fail, alternate procedures to prevent undue hazard; and

   (b) Analysis of vulnerability and additional resource requirements should a failure occur.

5. Safety plan;

(a) Data Record

The data record shall include, but not be limited to the following:

(i) Unique sample or field measurement code;

(ii) Sampling or field measurement location and sample or measurement type;

(iii) Sampling or field measurement raw data;

(iv) Laboratory analysis ID number;

(v) Property or component measured; and

(vi) Result of analysis (e.g., concentration).

(b) Tabular Displays

The following data shall be presented in tabular displays:

(i) Unsorted (raw) data;

(ii) Results for each medium, or for each constituent monitored;

(iii) Data reduction for statistical analysis;

(iv) Sorting of data by potential stratification factors (e.g., location, soil layer, topography); and

(v) Summary data.

(c) Graphical Displays

The following data shall be presented in graphical formats (e.g., bar graphs, line graphs, area or plan maps, isopleth plots, cross-sectional plots or transects, three dimensional graphs, etc.):

(i) Display sampling location and sampling grid;

(ii) Indicated boundaries of sampling area, and areas where more data are required;

(iii) Display levels of contamination at each sampling location;

(iv) Display geographical extent of contamination;

(v) Display contamination levels, averages, and maxima;

(vi) Illustrate changes in concentration in relation to distance from the source, time, depth or other parameters; and

(vii) Indicate features affecting intramedia transport and show potential receptors.

3. Quality Assurance Project Plan (QAPjP)

The Respondent shall prepare a QAPjP to document each phase of investigative work and all sampling and monitoring procedures to be implemented during the RFI. The following activities shall be covered in the QAPjP: sampling, field measurements and sample analysis performed during the investigations. This Plan shall ensure that all information, data, and resulting decisions are technically sound, statistically valid, and properly documented. The QAPjP(s) shall be developed in accordance with the following guidance documents, "RCRA Quality Assurance Project Plan Guidance," "SW-846," and "Technical Enforcement Guidance Document." The Plan shall address all of the sixteen (16) essential QA/QC elements stipulated in the "RCRA Quality Assurance Project Plan Guidance." A summary of the QA/QC elements that shall be in the Plan is found in the subsequent paragraphs.

(a) Data Quality Objectives

The QAPjP shall include, but not be limited to the following:

(i) Description of the intended uses for the data, and the necessary level of precision and accuracy for these intended uses;

(ii) Description of methods and procedures to be used to assess the precision, accuracy and completeness of the measurement data;

(iii) Description of the rational used to assure that the data accurately and precisely represent a characteristic of a population, parameter variations at a sampling point, a process condition or an environmental condition; and

(iv) Description of the measures to be taken to assure that data sets can be compared to each other.

(b) Sampling and Field Measurements

The QAPjP shall include, but not be limited to the following:

(i) Sampling and field measurement locations, depths, etc.;

(ii) Collecting all necessary ancillary data;

(iii) Conditions under which sampling and field measurements should be conducted;

(iv) Media to be sampled and addressed by field measurements (e.g., groundwater, air, soil, sediment, etc.);

(v) Parameters to be measured and where;

(vi) The frequency of sampling and field measurements and length of sampling period;

(vii) The types of sample (e.g., composites v. grabs) and number of samples to be collected;

(viii) Measures to be taken to prevent contamination of the sampling equipment and cross contamination between sampling points;

(ix) Documenting field sampling and measurement operations and procedures, including;

(1) Documentation of procedures for preparation of reagents or supplies which become an integral part of the sample (e.g., filters, and adsorbing reagents);

(2) Procedures and forms for recording raw data and the exact location, time, and specific considerations associated with sample and data acquisition;

(3) Documentation of specific sample preservation method;

(4) Calibration of field devices;

(5) Collection of replicate samples and measurements;

(6) Submission of field-biased blanks, where appropriate;

(7) Potential interferences present at the facility;

(8) Construction materials and techniques, associated with monitoring wells and piezometers;

(9) Field equipment listing and sample containers;

(10) Sampling and field measurement order; and

(11) Decontamination procedures.

(x) Selecting appropriate sample containers;

(xi) Sample preservation; and

(xii) Chain-of-Custody, including:

(1) Standardized field tracking reporting forms to establish sample custody in the field prior to and during shipment; and

(2) Pre-prepared sample labels containing all information necessary for effective sample tracking.

(c) Sample Analysis

The QAPjP shall include, but not be limited to the following:

(i) Chain-of-custody procedures, including:

(1) Identification of a responsible party to act as sample custodian at the laboratory facility authorized to sign for incoming field samples, obtain documents of shipment, and verify the data entered onto the sample custody records;

(2) Provision for a laboratory sample custody log consisting of serially numbered standard lab-tracking report sheets; and

(3) Specification of laboratory sample custody procedures for sample handling, storage, and disbursement for analysis.

(ii) Sample storage procedures and storage times;

(iii) Sample preparation methods;

(iv) Analytical procedures, including:

(1) Scope and application of the procedure;

(2) Sample matrix;

(3) Potential interferences;

(4) Precision and accuracy of the methodology; and

(5) Method detection limits.

(v) Calibration procedures and frequency;

(vi) Data reduction, validation and reporting;

(vii) Internal quality control checks, laboratory performance and systems audits and frequency, including:

(1) Method blank(s);

(2) Laboratory control sample(s);

(3) Calibration check sample(s);

(4) Replicate sample(s);

(5) Matrix-spikes sample(s);

(6) "Blind" quality control sample(s);

(7) Control charts;

(8) Surrogate samples;

(9) Zero and span gases; and

(10) Reagent quality control checks.

(viii) Preventive maintenance procedures and schedules;

(ix) Corrective action (for laboratory problems); and

(x) Turnaround time.

4. Health and Safety Plan

The Respondent shall prepare a Health and Safety Plan for the protection of the investigative team(s), workers, and general public which may be exposed to hazards.

(a) The Health and Safety Plan shall include, but not be limited to the following:

(i) Facility description including availability of resources such as roads, water supply, electricity and telephone service;

(ii) Describe the known hazards and evaluate the risks associated with the incident and with each activity conducted;

(iii) List key personnel and alternates responsible for site safety, response operations, and for protection of public health;

(iv) Delineate work areas;

(v) Describe levels of protection to be worn by personnel in work areas;

(vi) Establish procedures to control site access;

(vii) Describe decontamination procedures for personnel and equipment;

(viii) Establish site emergency procedures;

(ix) Address emergency medical care for injuries and toxicological problems;

(x) Describe requirements for an environmental surveillance program;

(xi) Specify any routine and special training required for responders; and

(xii) Establish procedures for protecting workers from weather-related problems.

(b) The Facility Health and Safety Plan shall be consistent with:

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

(ii) EPA Order 1440.1 - Respiratory Protection;

(iii) EPA Order 1440.3 - Health and Safety Requirements for Employees engaged in Field Activities;

(iv) Facility Contingency Plan;

(v) EPA Standard Operating Safety Guide (1984);

(vi) OSHA regulations particularly in 29 CFR §§ 1910 and 1926;

(vii) State, local, and other federal agency (e.g., DOD, DOE) regulations; and

(viii) Other EPA guidance as provided.

5. Community Relations Plan

The Respondent shall prepare a plan on disseminating information to the public regarding investigation activities and results. The plan should identify who will be notified and will receive summary RFI reports.

E. TASK IV: THE FACILITY INVESTIGATION

The Respondent shall consistent with the approved SOW, submit a workplan that shall address the techniques and procedures necessary to characterize the environmental setting at and within the vicinity of the facility and the media-specific contamination resulting from the release(s) by the SWMU(s) and the AOC(s). The part of the workplan that addresses field sampling and measurement activities shall meet the sampling plan requirements stipulated in the "RCRA Quality Assurance Project Plan Guidance."

1. Environmental Setting

The Respondent shall submit an appropriate plan on collecting information to supplement existing information on the environmental setting at the facility and in the vicinity of the facility. Sufficient information shall be collected by the Respondent to characterize only those environmental media impacted by the release(s) from the SWMU(s) and the AOC(s):

(a) Hydrogeology

The Respondent shall conduct a program to characterize the hydrogeologic conditions at the facility and the off-site areas where contamination has migrated. The program shall provide relevant information on geology and hydrogeology that should include, but not be limited to the following facts:

(i) A description of the regional and facility specific geologic and hydrogeologic characteristics which affect groundwater flow both beneath and within the vicinity of the facility, including:

(1) Regional and facility specific geomorphology and stratigraphy: description of strata including strike and dip, identification of stratigraphic contacts;

(2) Structural geology: description of local and regional structural features (e.g., folds, faults, joints, and fractures);

(3) Identification and characterization of areas and amounts of recharge and discharge;

(4) Regional and facility specific groundwater flow patterns; and

(5) Characterize seasonal variations in the groundwater flow regime.

(ii) An analysis of any topographic features that might influence the groundwater flow system.

(iii) Based on field data, tests, and cores, a representative and accurate classification and description of the hydrogeologic units which may be part of the migration pathways (i.e., the aquifers and any intervening saturated and unsaturated units), including:

(1) Hydraulic conductivity and porosity (total and effective);

(2) Lithology, grain size, sorting, degree of cementation;

(3) An interpretation of hydraulic interconnections between saturated zones; and

(4) The attenuation capacity and mechanisms of the natural earth materials (e.g., ion exchange capacity, organic carbon content, mineral content etc.).

(iv) Based on field studies and cores, structural geology and hydrogeologic cross sections, a description of the extent (depth, thickness, lateral extent) of hydrogeologic units which may be part of the migration pathways, including:

(1) Sand and gravel deposits in unconsolidated deposits;

(2) Zones of fracturing or channeling in consolidated or unconsolidated deposits;

(3) Zones of higher permeability or low permeability that might direct and restrict the flow of contaminants;

(4) The uppermost aquifer: geologic formation, group of formations, or part of a formation capable of yielding a significant amount of groundwater to wells or springs; and

(5) Water-bearing zones above the first confining layer that may serve as a pathway for contaminant migration including perched zones of saturation.

(v) Based on data obtained from groundwater monitoring wells and piezometers installed upgradient and downgradient of the potential contaminant source, a representative description of water level or fluid pressure monitoring including:

(1) Water-level contour and/or potentiometric maps;

(2) Hydrologic cross sections showing vertical gradients;

(3) The flow system, including the vertical and horizontal components of flow; and

(4) Any temporal changes in hydraulic gradients, for example, due to tidal or seasonal influences.

(vi) A description of man-made influences that may affect the hydrogeology, identifying:

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

(2) Man-made hydraulic structures (sewers, pipelines, French drains, ditches, unlined ponds, septic tanks, outfalls, retention areas, etc.).

(b) Soils

The Respondent shall conduct a program to characterize the soil and rock units above the water table in the vicinity of the contaminant release(s). The program shall provide relevant information on soil characterization that should include, but not be limited to the following facts:

(i) SCS soil classification;

(ii) Surface soil distribution;

(iii) Soil profile, including ASTM classification of soils;

(iv) Transects of soil stratigraphy;

(v) Hydraulic conductivity (saturated and unsaturated);

(vi) Relative permeability;

(vii) Bulk density;

(viii) Porosity;

(ix) Soil sorptive capacity;

(x) Cation exchange capacity (CEC);

(xi) Soil organic content;

(xii) Soil pH;

(xiii) Particle size distribution;

(xiv) Depth of water table;

(xv) Moisture content;

(xvi) Effect of stratification on unsaturated flow;

(xvii) Infiltration;

(xviii) Evapotranspiration;

(xix) Storage capacity; and

(xx) Mineral content.

(c) Surface Water and Sediment

The Respondent shall conduct a program to characterize the surface-water bodies in the vicinity of the contaminant release(s). The program shall provide relevant information on surface water and sediment characterization that should include, but not be limited to the following facts:

(a) Description of the temporal and permanent surface-water bodies including:

(1) For lakes and estuaries: location, elevation, surface area, inflow-outflow characteristics, depth, temperature stratification, and volume;

(2) For impoundments: location, elevation, surface area, depth, volume, inflow-outflow characteristics, freeboard, and purpose of impoundment;

(3) For rivers, streams, ditches, drains, swamps and channels: location, elevation, flow, velocity, depth, width, inflow-outflow characteristics, seasonal fluctuations, and flooding tendencies (i.e., 100 year event);

(4) Drainage patterns; and

(5) Evapotranspiration.

(i) Description of the chemistry of the surface water. This includes determining the pH, total dissolved solids, total suspended solids, biological oxygen demand, alkalinity, conductivity, dissolved oxygen profiles, nutrients (NH_3, NO_3^-/NO_2, PO_4^{-3}), chemical oxygen demand, total organic carbon, and specific contaminant concentrations.

(ii) Description of sediment characteristics including:

(1) Deposition area;

(2) Thickness profile; and

(3) Physical and chemical parameters (e.g., grain size, density, organic carbon content, ion exchange capacity, and pH).

(d) Air

The Respondent shall conduct a program to characterize the climate at the facility and in the vicinity of the facility when contamination migrates off-site. The program shall provide relevant information on climatic conditions that should include, but not be limited to the following facts:

(i) A description of the following parameters:

(1) Annual and monthly rainfall averages;

(2) Monthly temperature averages and extremes;

(3) Wind speed and direction;

(4) Relative humidity/dew point;

(5) Atmospheric pressure;

(6) Evaporation data;

(7) Development of inversions; and

(8) Climate extremes that have been known to occur in the vicinity of the facility, including frequency of occurrence.

(ii) A description of topographic and man-made features which affect air flow and emission patterns, including:

(1) Ridges, hills or mountain areas;

(2) Canyons or valleys;

(3) Surface-water bodies (e.g., rivers, lakes, bays, etc.);

(4) Wind breaks and forests;

(5) Buildings; and

(6) Existing man-made air emission sources (e.g., industrial processes, residences, etc.).

If the RFA concludes that there is a need for further investigative work the Respondent shall be required to pursue phase two of corrective action, an RFI. The purpose of the RFI is to determine the nature, extent, direction and rate of migration of hazardous wastes, including hazardous constituents, in soils, groundwater, surface water/sediment, subsurface gas and/or air. From these multimedia analyses, the types and concentrations of contaminants present, the boundaries of any contamination (e.g., plumes), and the rate and direction of contaminant movement should be determined in each of the impacted media. Sufficient data shall be generated during the RFI to allow proper assessment of corrective measure alternatives. This may require bench and/or pilot studies to be implemented as part of the RFI. Once all analyses are reviewed, a RFI report is prepared that provides a summation of the data and recommendations for any needed corrective measures.

The culmination of the Corrective Action Program is Corrective Measures ("CM"). The initial stage of the corrective measures phase is the preparation of a Corrective Measures Study ("CMS"). A CMS may be required if concentrations of hazardous constituents in an aquifer, in surface water/sediment, in soils, or in air exceed their corresponding action levels. Such a study may also be required if individual concentrations of hazardous constituents are at or below their action levels, but they still may pose a threat to human health or the environment due to site-specific exposure conditions. The CMS will address alternative corrective measure strategies that are technologically feasible and reliable and which effectively mitigate and minimize damage to, and provides adequate protection of human health and the environment. The Respondent will develop the site-specific CMS using target clean-up levels chosen by the Commissioner to be protective of human health and the environment. Where available, they may be promulgated standards. Where promulgated standards are not available, the Commissioner may use health-based levels, based on Risk-Specific Doses ("RSD") for carcinogens and Reference Doses ("RFD") for systemic toxicants, or concentration levels protective of the environment, that have undergone scientific review. The CMS report should discuss the alternative corrective measure strategies studied, addressing technical, institutional, public health, and environmental issues, and develop the conceptual engineering for the alternative action proposed by the facility. The CMS may not require extensive evaluation of a number of remedial alternatives where a solution is straight forward or only few solutions exist. Such situations could require the Respondent to submit a highly focused CMS.

Following completion of the CMS, the Commissioner will select the corrective measure(s) from the corrective measure alternatives evaluated in the CMS. Subsequent to that selection, the Respondent will be required to demonstrate financial assurance for completing the approved corrective measure(s).

Selection of the appropriate corrective measure(s) will initiate the final stage of corrective measures, Corrective Measures Implementation ("CMI"). The CMI will address the final design, construction, operation, maintenance, and monitoring of the corrective measure or measures selected.

2. Solid Waste Management Units and Areas of Concern. The conditions of this Attachment apply to:

   (a) All the SWMUs and AOCs listed in this Attachment individually or in combinations;

   (b) Any additional SWMU(s) and AOCs identified during the course of groundwater monitoring, field investigations, environmental audits or other means as described in Condition C. below; and

   (c) The following known SWMUs and AOCs located on-site and/or off-site:

Table 1

SWMU CATEGORY	SOLID WASTE MANAGEMENT UNITS (please note that the numbering of SWMUs and AOCs listed in this table and others that follow may not correspond to that in the RFA)
Tank Systems	1. Former Lucas Avenue West Pickle Facility 2. Brigham Road Plant Pickle Facility 3. Bar Finishing and Storage Pickle Facility 4. Former Lucas Avenue East Pickle Facility 5. Former Grinding Room Pickling Process 6. Former Barium Chloride Bath 7. Former Plating Operations 8. Former Lucas Avenue Acid Neutralization Plant

SWMU CATEGORY	SOLID WASTE MANAGEMENT UNITS (please note that the numbering of SWMUs and AOCs listed in this table and others that follow may not correspond to that in the RFA)
Container Storage Units	9. Former Trichloroethane Container Storage Area 10. Waste Container Accumulation Areas (3) 11. Shark Pit Residual Material Loading Area
Waste Disposal Units	12. Former Lime Disposal Area 13. Crucible Disposal Areas (3) 14. Waste Disposal Facilities (2)
Surface Impoundments	15. Former Waste Acid Surface Impoundments (2) 16. Willowbrook Pond 17. Closed Surface Impoundment
Waste Piles	18. Grinding Dust Transfer Pile 19. Former Waste Pile 20. Waste Asbestos Accumulation Area 21. Grinding Swarf Storage Area
Wastewater Treatment Units	22. Current Industrial Wastewater Treatment Plant
Waste Oil Handling Units	23. API Oil/Water Separator
Sewers handling hazardous waste or hazardous constituents	24. Process Sewers

AOC CATEGORY	AREAS OF CONCERN
Electrical Equipment	1. Transformers 2. Battery Storage Areas
Tank Systems	3. Process Pits and Cooling Towers 4. Former Heat Treating Process 5. Lucas Avenue Oil Tank 6. Former Aboveground Fuel Oil Tank
Raw Material Piles	7. Scrap Steel Storage Areas 8. Former Coal Storage Area
Surface Water	9. Crooked Brook
Dust Control Areas	10. Oiled Roads
Process Waste Disposal Area	11. Former Coal Gasification Plant

B. STANDARD CONDITIONS FOR CORRECTIVE ACTION

1. Work Plans. All work plans submitted pursuant to this Attachment shall include:

   (a) Quality Assurance/Quality Control protocols to ensure that data generated is valid and supported by documented procedures;

   (b) Other plans, specifications and protocols, as applicable;

   (c) A schedule for starting specific tasks, completing the work and submitting progress and final reports; and

   (d) Plans for the treatment, storage, discharge or disposal of wastes to be generated by activities described therein.

2. Quality Assurance/Quality Control

(a) Any laboratory to be used pursuant to such work plans required by this Attachment must be approved by the Commissioner prior to work plan implementation. Certification by the New York State Department of Health Environmental Laboratory Approval Program in the relevant analytical services is required.

(b) The minimum Quality Assurance/Quality Control data and information, that shall be delivered with all sample analyses required by this Attachment, are tabulated in Appendix BE of this Attachment.

3. Health/Safety Plans. The Respondent shall develop, according to applicable Federal, State and local requirements, and submit to the Commissioner, health and safety plans that will be implemented to ensure that the health and safety of project personnel, plant personnel and the general public are protected. These plans are not subject to approval by the Commissioner.

4. Guidance Documents. When preparing the submissions described in this Attachment, the Respondent shall take account of applicable guidance documents issued by the U.S. Environmental protection Agency and the New York State Department of Environmental Conservation in a manner reflecting reasonable technical considerations.

5. Prior Submittals. The Respondent may have already submitted portions of information, plans, or reports required by this Attachment and its Appendices to the Commissioner pursuant to the terms of previous applications, consent orders, or plans. For those items the Respondent contends were submitted to the Commissioner, the Respondent may cite the specific document(s) and page(s) it believes adequately addresses each of the individual items requested by this Attachment and its Appendices. The references, by document(s) and page(s), shall be placed in the appropriate sections of the submittals that require the referenced information and data. If the Commissioner, after a file search, determines that it does not possess any of the referenced information, plans, or reports that the Respondent claims were previously submitted, the Commissioner will notify the Respondent and the Respondent shall submit the referenced documents within the time specified within the notification.

6. Determination of No Further Action.

(a) Based on the results of an RFI for a particular SWMU, or combination of SWMUs, and/or AOC, and other relevant information, the Respondent may submit an application to the Commissioner for a modification of this Order on Consent to terminate the subsequent

corrective action requirements of this Attachment. This application must contain information demonstrating no release(s) of hazardous wastes, including hazardous constituents, from the SWMU(s) and/or AOC(s) that pose a threat to human health or the environment.

If, based upon review of the Respondent's request for a modification of this Order on Consent, the results of the RFI, and other relevant information, the Commissioner determines that the release(s) or the suspected release(s) investigated either are non-existent or do not pose a threat to human health or the environment, the Commissioner may grant the requested modification.

(b) A determination of no further action shall not preclude the Commissioner from implementing the following actions:

(i) Modifying this Order on Consent at a later date to require the Respondent to perform such investigations as necessary to comply with the requirements of this Attachment and its Appendices if new information or subsequent analysis indicates that there are, or are likely to be, releases from SWMUs/AOCs that may pose a threat to human health or the environment; and

(ii) Requiring continual or periodic monitoring of air, soil, groundwater, or surface water/sediment or subsurface gas, if necessary, to protect human health and the environment, when site-specific circumstances indicate the release(s) of hazardous waste, including hazardous constituents, are likely to occur from any SWMU(s) and/or AOC(s).

7. Compliance with Governmental Requirements. During investigative activities, interim corrective measures, and final corrective measures, (including, but not limited to, equipment decommissioning, excavation and unit demolition) required under this Attachment, the Respondent shall ensure that the transportation, treatment, storage, discharge, and disposal of all contaminated materials generated as a result of such activities (including, but not limited to, soils, sediments, liquids, tanks, pipes, pumps, rubble, debris, and structural materials) are performed in an environmentally sound manner pursuant to all applicable Federal, State and local requirements and that is protective of public health and the environment. Nothing in this Attachment shall be construed to require the Respondent to proceed in a manner which is in violation of any such requirements.

8. Notification of residual contamination. If hazardous wastes or hazardous constituents in solid waste management units or areas of concern, or which

have been released from solid waste management units or areas of concern, will remain in or on the land, including groundwater, after the term of the Order on Consent has expired, the Commissioner may require the Respondent to record, in accordance with State law, a notation in the deed to the facility property or in some other instrument which is normally examined during title search that will, in perpetuity, notify any potential purchaser of the property of the types, concentrations, and locations of such hazardous wastes or hazardous constituents. The Commissioner may require such notice as part of the corrective measures selection process.

C. CORRECTIVE ACTION REQUIREMENTS.

1. No Action Requirement.

(a) On the basis of the RCRA Facility Assessment Report dated December 23, 1992, as revised the Commissioner has determined that there is no evidence at this time of the release(s) of hazardous waste(s) and/or constituent(s) that threaten human health or the environment from the following SWMU(s) and/or AOC(s) identified in Table 1:

TABLE 2

SWMU CATEGORY	SOLID WASTE MANAGEMENT UNITS
Tank Systems	8. Former Lucas Avenue Acid Neutralization Plant
Container Storage Units	10. Waste Container Accumulation Areas (3)

AOC CATEGORY	AREAS OF CONCERN
Electrical Equipment	2. Battery Storage Area
Tank Systems	4. Former Heat Treating Process

(b) The Respondent need not undertake corrective action at any aforementioned SWMU(s) and/or AOC(s) identified in Table 2 of this Attachment as long as there is no evidence of the release(s) of

hazardous waste(s) or constituent(s) from the SWMU(s) and/or AOC(s) threatening human health or the environment. This condition does not apply to any other requirements specified in other Attachments or Conditions of this Order on Consent.

(c) A determination of no further action shall not preclude the Commissioner from modifying this Order on Consent at a later date to require further investigations, studies, monitoring, or corrective measures, if new information or subsequent analysis indicates the release(s) or likelihood of release(s) from SWMU(s) and/or AOC(s) identified in Table 2 of this Attachment that could pose a threat to human health or the environment.

2. Compliance Schedule For RCRA Facility Investigation ("RFI") Work Plan.

(a) On the basis of the RCRA Facility Assessment Report dated December 23, 1992, as revised, the Commissioner has determined that there has or may have been a release of hazardous waste and/or constituents from the following SWMU(s), or combination of SWMU(s), and/or AOC(s) identified in Table 1 of this Attachment that require the implementation of an RFI:

Table 3

SWMU CATEGORY	SOLID WASTE MANAGEMENT UNITS
Tank Systems	1. Former Lucas Avenue West Pickle Facility 2. Brigham Road Plant Pickle Facility 3. Bar Finishing and Storage Pickle Facility 4. Former Lucas Avenue East Pickle Facility 5. Former Grinding Room Pickling Process 6. Former Barium Chloride Bath 7. Former Plating Operations

SWMU CATEGORY	SOLID WASTE MANAGEMENT UNITS
Container Storage Units	9. Former Trichloroethane Container Storage Area 11. Shark Pit Residual Material Loading Area
Waste Disposal Units	12. Former Lime Disposal Area 13. Crucible Disposal Areas (3) 14. Waste Disposal Facilities (2)
Surface Impoundments	15. Former Waste Acid Surface Impoundments (2) 16. Willowbrook Pond 17. Closed Surface Impoundment
Waste Piles	18. Grinding Dust Transfer Pile 19. Former Waste Pile 20. Waste Asbestos Accumulation Area 21. Grinding Swarf Storage Area
Wastewater Treatment Units	22. Current Industrial Wastewater Treatment Plant
Waste Oil Handling Units	23. API Oil/Water Separator
Sewers handling hazardous waste or hazardous constituents	24. Process Sewers

AOC CATEGORY	AREAS OF CONCERN
Electrical Equipment	1. Transformers

AOC CATEGORY	AREAS OF CONCERN
Tank Systems	3. Process Pits and Cooling Towers 5. Lucas Avenue Oil Tank 6. Former Aboveground Fuel Oil Tank
Raw Material Piles	7. Scrap Steel Storage Areas 8. Former Coal Storage Area
Surface Water	9. Crooked Brook
Dust Control Areas	10. Oiled Roads
Process Waste Disposal Area	11. Former Coal Gasification Plant

3. RFI Workplan Requirements.

(a) An RFI Work Plan shall be submitted addressing the appropriate requirements of the approved RFI Scope of Work ("SOW") within the time set forth in Appendix BA.

(i) The Work Plan shall describe the objectives of the investigation and the overall technical and analytical approach to completing all actions necessary to characterize the nature, direction, rate, movement, and concentration of releases of hazardous waste, including hazardous constituents, from specific units or groups of units and areas, and their actual or potential receptors. The Work Plan shall detail all proposed activities and procedures to be conducted at the facility and/or off-site, the schedule for implementing and completing such investigations, the qualifications of personnel performing or directing the investigations, including contractor personnel, and the overall management of the RFI.

(ii) The Work Plan shall discuss sampling and data collection quality assurance and data management procedures, including formats for documenting and tracking data and other results of investigations, and health and safety procedures.

(iii) The Work Plan must, at a minimum, address all necessary activities or include descriptions to meet the requirements specified in Tasks III through V of the Scope of Work for a RCRA Facility Investigation included in Appendix BB to this Attachment.

(iv) The Respondent may determine that any of the items required by Tasks III through V of the Scope of Work in Appendix BB of this Attachment have already been submitted or completed, and therefore, the resubmittal of those items are not necessary for completing the RFI of this Order on Consent. Consistent with Appendix BA, that the Commissioner shall review for approval Respondent's determination. At the time of the request, the Respondent must provide the following information: (1) description of the items and/or summary of findings; (2) description of investigations addressing the items, documents/reports of the investigations with dates, and summary of the findings; and (3) copies of the documents/reports.

Upon the Commissioner's approval of any previously performed items, the Respondent may delete these from the RFI Work Plan. However, upon disapproval of items, all activities necessary for the items must be included in the RFI Work Plan.

(b) Following submission of the RFI Work Plans, subsequent activities for the Plan shall proceed in accordance with the following schedule:

(i) Meeting between the Respondent and DEC to discuss Plan comments, as appropriate; and

(ii) Submission of a revised Plan to the Commissioner for approval within the time set forth in Appendix BA.

(c) The Commissioner shall review, for approval, as part of the RFI Work Plan, any plans developed, addressing further investigations of newly-identified SWMUs and/or AOCs, addressing newly discovered releases from units and/or areas. The Commissioner shall modify the Compliance Schedule of this Attachment to incorporate these units and areas and releases into the RFI Work Plan.

(d) RCRA Facility Investigation Final Report And Summary Report.

(i) Within the time set forth in Appendix BA, the Respondent shall submit to the Commissioner for approval, the RFI Final and

Summary Reports. The RFI Final Report must contain adequate information to support further corrective action decisions at the facility and/or off-site, should such actions be necessary. The RFI Final Report shall describe the procedures, methods, and results of all facility investigations of SWMUs and AOCs and their releases, including information on the type and extent of contamination at the facility and/or off-site, sources and migration pathways, and actual or potential receptors. It shall present all information gathered under the approved RFI Work Plan. The RFI final report will include a comparison of media specific hazardous constituents with their corresponding action levels. The Summary Report shall describe more briefly the procedures, methods, and results of the RFI.

(ii) Following submission of the Reports, subsequent activities for the Report shall proceed in accordance with the following schedule:

(1) Meeting between the Respondent and DEC to discuss Report comments, as appropriate; and

(2) Submission of a revised Report to the Commissioner for approval within the time set forth in Appendix BA.

(iii) After the Commissioner approves the RFI Final Report and Summary Report, the Respondent shall mail the approved Summary Report to all individuals on the facility mailing list established by the Respondent.

(iv) A report summarizing the testing program required by task VI of the Scope of Work for RFI in Appendix BB of this Attachment shall be submitted, as a separate document, at the same time as the RFI Final Report, if such a testing program is necessary.

4. Requirements for Corrective Measures Study ("CMS") Scope of Work.

(a) Should a CMS be required, the Commissioner shall notify the Respondent in writing. This notice shall identify the hazardous constituent(s) which have exceeded the action level(s) as well as those which have been determined to threaten human health and the environment given site-specific exposure conditions or due to additive exposure risk. The notification shall specify target cleanup levels for hazardous constituents detected in each medium of concern, and may

also specify corrective measure alternatives to be evaluated by the Respondent during the CMS.

(b) The Commissioner may require a Corrective Measures Study ("CMS") under the following conditions:

(i) If the concentrations of hazardous constituents in groundwater, surface water/sediment, soil, or air exceed their corresponding individual action levels; or

(ii) If the concentrations of hazardous constituents in groundwater, surface water/sediment, soil, or air do not exceed their corresponding individual action levels, but additive exposure risk due to the presence of multiple constituents is not protective of human health; or

(iii) If the concentrations of hazardous constituent in groundwater, surface water/sediment, soil, or air do not exceed corresponding individual action levels, but still pose a threat to human health or the environment, given site-specific exposure conditions.

(c) The CMS will be considered complete upon completion of Tasks I through IV required by the CMS Scope of Work included in Appendix BC of this Attachment. Within the time set forth in Appendix BA the Respondent shall complete Task I and submit to the Commissioner a Task I report and documents, if any, relevant to other Tasks.

(d) The Respondent shall submit for approval a CMS Plan to the Commissioner within the time set forth in Appendix BA.

(i) The CMS Plan shall provide:

(1) A description of the general approach to investigating and evaluating potential corrective measure;

(2) A definition of the overall objectives of the study;

(3) The specific plans for evaluating corrective measure to ensure compliance with corrective measure standards;

(4) The schedules for conducting the study; and

(5) The proposed format for the presentation of information.

(ii) The CMS Plan must address, at a minimum, all necessary activities to complete Tasks II and III required by the CMS Scope of Work included in Appendix BC of this Attachment.

(e) Following submission of the CMS Plan, subsequent activities for the Plan shall proceed in accordance with the following schedule:

(i) Meeting between the Respondent and DEC to discuss Plan comments, as appropriate; and

(ii) Submission of a revised Plan to the Commissioner for approval within the time set forth in Appendix BA.

5. Corrective Measures Study Implementation.

Within the time set forth in Appendix BA, the Respondent shall begin to implement the CMS according to the schedules specified in the CMS Plan. The CMS shall be conducted in accordance with the approved Plan.

6. Corrective Measures Study Final Report.

(a) Within the time set forth in Appendix BA, the Respondent shall submit for approval a CMS Final Report (Task IV) to the Commissioner. The CMS Final Report shall:

(i) Summarize the results of the investigations and, if applicable, of any bench-scale or pilot tests conducted;

(ii) Provide a detailed description of the corrective measures evaluated and include an evaluation of how each corrective measure alternative meets the standards set forth.

(iii) Present all information gathered under the approved CMS Plan; and

(iv) Contain any additional information to support the Commissioner in the corrective measure selection decision-making process.

(b) The CMS Final Report (Task IV) must address, at a minimum, all items necessary to demonstrate completion of Tasks II and III required by the CMS Scope of Work included in Appendix BC of this Attachment.

(c) Following submission of the CMS Report, subsequent activities for the Report shall proceed in accordance with the following schedule:

(i) Meeting between the Respondent and DEC to discuss the Report comments, as appropriate; and

(ii) Submission of a revised Report to the Commissioner for approval within the time set forth in Appendix BA.

(d) Based on preliminary results and the CMS Final Report, the Commissioner may require the Respondent to evaluate additional corrective measures or particular elements of one or more proposed corrective measures.

7. Corrective Measure(s) Selection.

(a) Based on the results of the documents submitted for the RFI, for the CMS, and any further evaluations of additional corrective measures under this study, the Commissioner shall select the corrective measure(s) that at a minimum will meet the following standards:

(i) Be protective of human health and the environment;

(ii) Attain media cleanup standards selected by the Commissioner during the corrective measures selection process;

(iii) Control the source(s) of release(s) so as to reduce or eliminate, to the maximum extent practicable, further releases of hazardous waste, including hazardous constituents, that might pose a threat to human health and the environment; and

(iv) Meet all applicable waste management requirements.

(b) In selecting the corrective measure(s) which meets the standards for corrective measures the Commissioner shall consider the following evaluation factors, as appropriate:

(i) Long-term reliability and effectiveness. Any potential corrective measure(s) may be assessed for the long-term reliability and effectiveness it affords, along with the degree of certainty that the corrective measure(s) will prove successful. Factors that shall be considered in this evaluation include:

(1) Magnitude of residual risks in terms of amounts and concentrations of hazardous waste, including hazardous constituents, remaining following implementation of the corrective measure(s), considering the persistence, toxicity, mobility and propensity to bioaccumulate of such hazardous wastes, including hazardous constituents:

(2) The type and degree of long-term management required, including monitoring and operation and maintenance;

(3) Potential for exposure of humans and environmental receptors to remaining hazardous wastes, including hazardous constituents, considering the potential threat to human health and the environment associated with excavation, transportation, redisposal or containment;

(4) Long-term reliability of the engineering and institutional controls, including uncertainties associated with land disposal of untreated hazardous wastes, including hazardous constituents, and their residuals; and

(5) Potential need for replacement of the corrective measure(s).

(ii) Reduction of toxicity, mobility or volume. A potential corrective measure(s) may be assessed as to the degree to which it employs treatment that reduces toxicity, mobility or volume of hazardous wastes, including hazardous constituents. Factors that shall be considered in such assessments include:

(1) The treatment processes the corrective measure(s) employs and materials it would treat;

(2) The amount of hazardous wastes, including hazardous constituents, that would be destroyed or treated;

(3) The degree to which the treatment is irreversible;

(4) The residuals that will remain following treatment, considering the persistence, toxicity, mobility and propensity to bioaccumulate of such hazardous wastes, including hazardous constituents; and

(5) All concentration levels of hazardous waste, including hazardous constituents, in each medium that the corrective measure(s) must achieve to be protective of human health and the environment.

(iii) The short-term effectiveness of a potential corrective measure(s) may be assessed considering the following:

(1) Magnitude of reduction of existing risks;

(2) Short-term risks that might be posed to the community, workers, or the environment during implementation of such a corrective measure(s), including potential threats to human health and the environment associated with excavation, transportation, and redisposal or containment; and

(3) Time until full protection is achieved.

(iv) Implementability. The ease or difficulty of implementing a potential corrective measure(s) may be assessed by considering the following types of factors:

(1) Degree of difficulty associated with constructing the technology;

(2) Expected operational reliability of the technologies;

(3) Need to coordinate with and obtain necessary approvals and permits from other agencies;

(4) Availability of necessary equipment and specialists;

(5) Available capacity and location of needed treatment, storage and disposal services; and

(6) Requirements for removal, decontamination, closure, or post-closure of units, equipment, devices or structures that will be used to implement the corrective measure(s).

(v) Cost. The types of costs that may be assessed include the following:

(1) Capital costs;

(2) Operation and maintenance costs;

(3) Net present value of capital and operation and maintenance costs; and

(4) Potential future corrective measure costs.

8. Corrective Measure(s) Implementation.

(a) Based on information the Respondent submits in the RFI and Summary Reports, the CMS Final Report and other information, the Commissioner will select the corrective measure(s) and prepare a Statement of Basis. The Statement of Basis will identify the proposed corrective measure(s) and describe other remedies that were considered in detail in the CMS Final Report.

(b) The Respondent shall implement the Corrective Measures Implementation Program in accordance with the Order and the specifications and schedule contained in the Scope of Work for the Corrective Measures Implementation in Appendix BD of this Attachment. This Order on Consent will be modified, if necessary, to implement the final corrective measure(s). The Corrective Measures Implementation Program will specify the selected corrective measure(s) and include, at a minimum, the following:

(i) Description of all technical features of the corrective measure(s) that are necessary for achieving the standards for corrective measures, including length of time for which compliance must be demonstrated at specified points of compliance;

(ii) All media cleanup standards for hazardous constituents, selected by the Commissioner, that the corrective measure(s) must achieve to be protective of human health and the environment;

(iii) All methods for achieving compliance with these cleanup standards;

(iv) All methods for complying with the standards for management of wastes;

(v) Methods for removal, decontamination, closure or post-closure of units, equipment, devices or structures that will be used to implement the corrective measure(s);

(vi) A schedule for initiating and completing all major technical features and milestones of the corrective measure(s); and

(vii) Procedures for submission of reports and other information.

9. Modification of the Compliance Schedules.

(a) If at any time the Respondent determines that modification of any Compliance Schedule of this Attachment, including Appendix BA of this Attachment, is necessary because such schedules cannot be met, the Respondent must:

(i) Notify the Commissioner in writing within fifteen (15) calendar days of such determination; and

(ii) Provide an explanation why the current schedule cannot be met.

(b) The Commissioner shall notify the Respondent in writing of the final decision regarding the Respondent's proposed modification to the Compliance Schedule.

(c) All other modifications to this Attachment must be made in accordance with Condition XIX of this Order on Consent.

Appendix BA

Compliance Schedule For Corrective Action

AL Tech - Dunkirk

A. Compliance Schedule for Notification

1. Respondent, within fifteen (15) calendar days after discovering facility releases of hazardous constituents in groundwater have migrated off-site, shall notify the Commissioner and off-site owners or residents on land overlying such contamination.

2. Respondent, within fifteen (15) calendar days after discovering facility releases of hazardous constituents in air have or are migrating off-site from a SWMU/AOC exceeding action levels, shall notify the Commissioner and off-site individuals subject to such exposure.

B. Compliance Schedule For Assessment of Newly Identified SWMUs and AOCs.

1. Respondent shall notify the Commissioner, in writing, of any additional SWMU(s) and/or AOC(s) within fifteen (15) calendar days after discovery.

2. Respondent shall submit a SWMU/AOC Assessment Report within thirty (30) calendar days after notifying the Commissioner of any additional SWMU(s) and/or AOC(s).

3. Respondent shall submit for approval a SWMU/AOC Sampling and Analysis Plan within thirty (30) calendar days after submittal of the SWMU/AOC Assessment Report.

4. Respondent shall submit for approval revisions of the SWMU/AOC Sampling and Analysis Plan within thirty (30) calendar days after meeting with DEC to discuss Plan comments or within forty-five (45) calendar days after Respondent's receipt of Plan comments when no meeting is scheduled.

5. Respondent shall begin to implement the SWMU/AOC Sampling and Analysis Plan within thirty (30) calendar days following written approval of the Plan.

6. Respondent shall submit a SWMU/AOC Sampling and Analysis Report within thirty (30) calendar days of receipt by the Respondent of validated analytical data generated under in the approved SWMU/AOC Sampling and Analysis Plan.

C. Compliance Schedule And Notification Requirements For Newly-Discovered Releases At SWMUs and AOCs.

1. Respondent shall notify the Commissioner, in writing, of any newly-discovered releases at SWMUs and/or AOCs, no later than fifteen (15) calendar days after such discovery.

D. Compliance Schedule For RCRA Facility Investigation ("RFI") Work Plan.

1. Respondent shall submit for approval a RFI Task I and II reports and a Work Plan for any inaccessible SWMU(s) no later than one-hundred and eighty (180) calendar days prior to the date when the SWMU(s) become accessible for such an investigation.

2. Respondent shall submit for approval a RFI Task I Report for newly discovered SWMU(s) or newly discovered releases from SWMUs within sixty (60) calendar days after written notification by the Commissioner that an RFI is required. Respondent shall submit for approval an RFI Task II Report within 90 calendar days after such notification and an RFI workplan within 120 calendar days after such notification.

3. Respondent shall submit for approval a RFI Task II Report within ninety (90) calendar days after approval of the RFI Scope of Work for the SWMU(s) identified in Table 3 of Attachment B.

4. Respondent shall submit for approval a RFI Work Plan within one-hundred and twenty (120) calendar days after approval of the RFI Scope of Work for the SWMU(s) identified in Table 3 of Attachment B.

5. If the Respondent determines any items of the RFI Scope of Work have been submitted, the Respondent shall request, within thirty (30) calendar days of notification by the Commissioner that an RFI is required, that the Commissioner review, for approval, the Respondent's determination that resubmittal of items required by the RFI Scope of Work is unnecessary.

6. Respondent shall submit for approval revisions to the RFI Work Plan within thirty (30) calendar days after meeting with DEC to discuss Plan comments, or within forty-five (45) calendar days after Respondent's receipt of Plan comments when no meeting is scheduled.

E. Compliance Schedule For RFI Work Plan Implementation.

Respondent shall begin to implement the RFI Work Plan within thirty (30) calendar days following written approval of the Plan.

F. Compliance Schedule For RFI Final Report And Summary Report.

1. Respondent shall submit for approval the RFI Final and Summary Reports within sixty (60) calendar days after receipt by the Respondent of validated analytical data generated under the approved work plan.

2. Respondent shall submit for approval revisions to the RFI Final and Summary Reports within forty-five (45) calendar days after meeting with DEC to discuss Report comments, or within forty-five (45) calendar days when no meeting is scheduled.

3. Respondent shall mail the approved Summary Report to all individuals on the facility mailing list within thirty (30) calendar days of receipt of Report approval.

G. Compliance Schedule For Corrective Measures Study ("CMS") Scope of Work.

1. Respondent shall submit a Task I Report and documents within sixty (60) calendar days after the written notification by the Commissioner for a CMS.

2. Respondent shall submit for approval a CMS Plan within sixty (60) calendar days after the written notification by the Commissioner for a CMS.

3. Respondent shall submit for approval revisions to the CMS Plan within thirty (30) calendar days after meeting with DEC to discuss Plan comments, or within forty-five (45) calendar days when no meeting is scheduled.

H. Compliance Schedule For CMS Implementation.

Respondent shall begin to implement the CMS Plan within thirty (30) calendar days following written approval of the Plan.

I. Compliance Schedule For CMS Final Report.

1. Respondent shall submit for approval a CMS Final Report within forty-five (45) calendar days after completion of the CMS.

2. Respondent shall submit for approval revisions to the CMS Final Report within thirty (30) calendar days after meeting with DEC to discuss Report comments or within forty-five (45) calendar days when no meeting is scheduled.

BB

RCRA Facility Investigation Workplan

AL Tech - Dunkirk

A. INTRODUCTION

The Respondent shall, on a basis consistent with the approved SOW and this guidance, undertake a RCRA Facility Investigation ("RFI") that should include the development of several component plans and supporting reports relevant to the specific investigations to be undertaken pursuant to this Order on Consent. Component plans and reports must be prepared and submitted in accordance with the Compliance Schedules set forth in Appendix BA.

The purpose of this RFI is to characterize the nature, extent, direction, rate, movement and concentration of releases of hazardous waste and/or constituents from Solid Waste Management Units and Areas of Concern at the Dunkirk facility including areas off-site impacted by the release(s) from the facility and to gather all necessary data to support the Corrective Measures Study. The Respondent shall furnish all personnel, materials, and services necessary for, or incidental to, performing the RCRA Facility Investigation.

The information presented in this Appendix shall serve as guidance for developing component plans and supporting reports to accomplish the intended purpose. This guidance is comprehensive, but can be tailored to meet site-specific circumstances. The Respondent should consult with DEC on any significant deviations from this guidance prior to implementation.

The RFI Scope of Work includes several tasks:

Task I: A report on the Description of Current Conditions.

Task II: A report on the Pre-Investigation Evaluation of Corrective Measures.

Task III: RFI Management Plans including:

A. The Project Management Plan;
B. The Data Management Plan;
C. The Quality Assurance Project Plan;
D. The Health and Safety Plan; and
E. The Community Relations Plan.

Task IV: The Facility Investigation.

Task V: Investigative Analysis.

Task VI: Laboratory, Bench Scale, and Pilot Studies.

Task VII: Reports.

The report on Description of Current Conditions should comprise all available and relevant information and data on the facility's background, SWMU(s) and AOC(s) characterization, nature and extent of contamination, potential receptors, and prevailing corrective action implementation. Data and information gathered during any previous investigations, remediations, or inspections and other relevant data should be included in the submittal. That information and data may then be used to focus subsequent field investigations and development of the respective work plans for the SWMU(s) and AOC(s) to be investigated as part of this Permit. If the Respondent maintains that relevant information and data has been submitted, the Respondent should cite such submittal(s).

The report on Pre-Investigation Evaluation of Corrective Measures will identify potential technologies that may be considered by the Respondent for subsequent implementation. These alternative technologies will focus the RFI to collect the necessary data for their proper evaluation.

The RFI Management Plans shall provide the necessary information that will assure that the following objectives are met:

- Proper management of all aspects of the RFI project including tracking of project milestones. Schedules and tracking methods shall be established for RFI tasks and report submittals (Project Management Plan);

- Satisfactory presentation of data and results developed by the RFI. Data management procedures shall be established to effectively process data such that relevant data descriptions are readily accessible and accurately maintained (Data Management Plan);

- Generation of valid data during the RFI investigation. QA/QC procedures shall be established to describe and document data quality (Quality Assurance Project Plan);

- Implementation of appropriate health and safety measures during the RFI. Health and safety procedures shall be established to ensure the health and safety of the investigative team(s) and the general public during the RFI (Health and Safety Plan); and

- Provision for informing the community of the results of the RFI (Community Relations Plan).

The Facility Investigation shall focus on procedures and techniques that will be utilized during field investigations to characterize the environmental setting and the contaminant release(s) from the SWMU(s) and AOC(s). Characterization of the environmental setting will be necessary to determine monitoring locations and to aid in defining the boundaries of the contaminated unit(s) and area(s). The Respondent shall characterize each environmental media, as deemed necessary by DEC, to provide information that can be used to determine the rate and extent of the contaminant release(s). Characterization of the contaminant release(s) from the SWMU(s) and AOC(s) will be necessary to determine the nature, extent, direction, rate, movement and concentration of the contaminant plume(s).

Since a potentially broad spectrum of situations involving information on a specific release(s) may exist at the beginning of the RFI, a flexible, phased approach for the release investigation may be necessary. The Respondent may begin with an evaluation of existing data and propose the collection of additional data as necessary to characterize the release. The Respondent may consider incorporating appropriate screening techniques, i.e., soil gas, geophysical methods, as the initial phase of field investigation for the RFI.

Based on existing data and/or data collected by appropriate screening techniques, the Respondent may develop a conceptual model of the release. This model may then be used to plan and develop subsequent investigations. The Respondent shall then develop work plans for the subsequent investigative program(s), as deemed necessary by DEC, utilizing conventional monitoring techniques capable of release(s) verification and/or characterization.

An Investigative Analysis shall be carried-out on the data generated by the Facility Investigation. The analysis shall focus on the quality of data generated and on establishing the nature, extent, direction, rate, movement and concentration of contamination.

Laboratory and/or Bench Scale Studies shall be performed to assess corrective measure technologies that may be applicable for remediating the SWMU(s), the AOC(s), and the environmental contamination investigated by the Respondent. The information gathered from such studies will assist the Respondent in selecting the alternative technologies for evaluation during the Corrective Measures Study.

Progress reports on the Facility Investigation and Laboratory Bench Scale Studies shall be submitted quarterly in addition to a final RFI Report and Summary Report.

B. TASK I: DESCRIPTION OF CURRENT CONDITIONS

The Respondent has already submitted, and the Commissioner has approved, a report for Task I containing available and relevant information and data on the facility's background, SWMU(s), AOC(s), contamination, receptors, and remediation undertaken pertinent to the specific SWMU(s) and AOC(s) to be investigated.

The Respondent shall submit a similar report for Task I for any newly identified SWMUs and AOCs.

C. TASK II: PRE-INVESTIGATION EVALUATION OF CORRECTIVE MEASURES

The Respondent shall submit a report for Task II that identifies the potential corrective measure technologies that may be used on-site or off-site for the containment, treatment, remediation, and/or disposal of contamination. This report shall also identify any field data that needs to be collected in the facility investigation to facilitate the evaluation and selection of the final corrective measure or measures (e.g., compatibility of waste and construction materials, information to evaluate effectiveness, treatability of wastes, etc.).

D. TASK III: RFI MANAGEMENT PLANS

The Respondent shall submit RFI Management Plans as part of the RFI Work Plan. The Plans shall address the methods and procedures necessary to manage the RFI, to describe data developed by the RFI, to gather and ensure valid RFI data, to protect the health and safety of investigators and the general public, and to keep the community informed about the RFI.

1. Project Management Plan

The Respondent shall prepare a Project Management Plan that shall include a discussion of the management approach, schedules, and personnel utilized during the RFI. That Plan shall include a description of qualifications of personnel performing or directing the RFI, including contractor personnel. This Plan shall also document the overall management approach to the RCRA Facility Investigation that will assure adherence to tasks and reporting schedules. The schedule for completing the RFI should reflect the schedules set forth in Appendix BA. The schedule shall reflect dates for submittal of various RFI Work Plan components, dates for starting and accomplishing specific tasks associated with the RFI, and dates for reporting information from specific tasks to DEC.

2. Data Management Plan

The Respondent shall prepare a Data Management Plan to document and track investigation data and results. This Plan shall identify and set up data documentation materials and procedures, project file requirements, and project-related progress reporting procedures and documents. The Plan shall also provide the format to be used to present the raw data and conclusions of the investigation.