

**GALLAGHER & KENNEDY**

P.A.

ATTORNEYS AT LAW

JAMES J. HAMULA  
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RECEIVED

932001  
Conces. file

DEC

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NYSDEC REG 9  
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2575 EAST CAMELBACK ROAD  
PHOENIX, ARIZONA 85016-9225  
PHONE: (602) 530-8000  
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March 1, 2005

VIA U.S. MAIL

✓ Michael J. Hinton  
Environmental Engineer II  
New York State Department of  
Environmental Conservation  
270 Michigan Avenue  
Buffalo, New York 14203-2999

Martin Doster  
Regional Environmental Remediation  
Engineer Region 9  
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Dale A. Desnoyers, Esq.  
Director, Division of Environmental  
Remediation  
New York State Department of  
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Albany, New York 12233-5500

Matthew J. Forcucci  
Environmental Health Specialist II  
New York State Department of Health  
Western Regional Office  
Division of Environmental Health  
Assessment  
584 Delaware Avenue  
Buffalo, New York 14202-1295

Gary Litwin  
Bureau of Environmental Exposure  
Investigation  
New York State Department of Health  
Flanigan Square  
547 River Street  
Troy, New York 12180-2216

Maura C. Desmond, Esq.  
Senior Attorney  
Division of Environmental Enforcement  
New York State Department of  
Environmental Conservation  
270 Michigan Avenue  
Buffalo, New York 14203-2999

Re: **Vanadium Corporation of America Site; New York State Inactive Hazardous  
Waste Disposal Site No. 932010** 932001

This letter serves as formal notice to the New York State Department of Environmental Conservation ("DEC") pursuant to Subparagraph XV.D of the Order on Consent captioned "In the Matter of the Development and Implementation of a Remedial Investigation/Feasibility Study for an Inactive Hazardous Waste Disposal Site, Under Article 27, Title 13, and Article 71, Title 27 of the Environmental Conservation Law of the State of New York by New York Power

March 1, 2005  
Page 2

Authority, Niagara Mohawk, a National Grid Company, Cyprus Amax Minerals Company” with respect to the above referenced Site (the “Order”).

On behalf of our client Cyprus Amax Minerals Company and pursuant to Subparagraph XI.E of the Order, we hereby designate the following individuals to receive communications from DEC under Subparagraph XV.A.2 of the Order in the stead of Michael D. Leach:

Joseph M. Flynn  
c/o Phelps Dodge Corporation  
One North Central Avenue  
Phoenix, Arizona 85004  
Telephone: 602-331-3859

With a copy to:

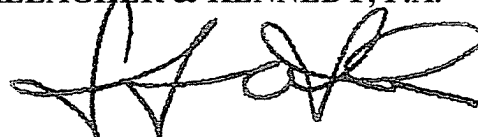
James J. Hamula, Esq.  
Gallagher & Kennedy, P.A.  
2575 E. Camelback Road  
Phoenix, Arizona 85016-9225  
Telephone: 602-530-8188

This letter does not affect DEC’s obligation to communicate with other individuals designated under Subparagraph XV.A.2 of the Order.

Finally, we wish to note that Mr. Flynn also will replace Dan Johnson as the principal point of contact for the Respondents for management of the technical tasks required by the Order.

Very truly yours,

**GALLAGHER & KENNEDY, P.A.**

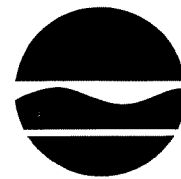
A handwritten signature in black ink, appearing to read 'J. Hamula', written over a horizontal line.

By:  
James J. Hamula, Esq.

cc: William E. Cobb  
Michael B. Wood, Esq.  
Joseph M. Flynn  
Mark Malone, Esq.  
William J. Holzhauer, Esq.

932001  
Corres. file

**New York State Department of Environmental Conservation**  
**Division of Environmental Enforcement**  
**Western Field Unit**  
270 Michigan Avenue, Buffalo, New York 14203-2999  
**Phone:** (716) 851-7050 • **FAX:** (716) 851-7067  
**Website:** www.dec.state.ny.us



Erin M. Crotty  
Commissioner

DKK

MTH

June 17, 2002

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Releasable  
Non-Releasable

James J. Hamula, Esq.  
Gallagher & Kennedy, P.A.  
2575 East Camelback Road  
Phoenix, Arizona 85016-9225

James D. Lyons, Esq.  
New York Power Authority  
123 Main Street  
White Plains, New York 10601

William J. Holzhauer, Esq.  
Niagara Mohawk, a National Grid Company  
300 Erie Boulevard West  
Syracuse, New York 13202

Re: Vanadium Corporation of America, New York State Inactive Hazardous Waste Disposal  
Site No. 932001

Dear Counselors:

With this letter I am forwarding to Mr. Hamula one fully executed original consent order for the above titled site. I am forwarding to Mr. Lyons and Mr. Holzhauer a copy of the executed order. The order was signed June 11, 2002 which is its effective date.

Please call me if you have any questions.

Very truly yours,

Maura C. Desmond  
Senior Attorney

MCD:d:k  
A:D1715.24  
Enc.

cc: M. Hinton

STATE OF NEW YORK: DEPARTMENT OF ENVIRONMENTAL CONSERVATION

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In the Matter of the  
Development and Implementation  
of a Remedial Investigation/Feasibility  
Study for an Inactive Hazardous Waste  
Disposal Site, Under Article 27, Title 13,  
and Article 71, Title 27 of the  
Environmental Conservation Law  
of the State of New York by  
by

ORDER  
ON  
CONSENT  
INDEX # B9-0470-94-12

New York Power Authority  
Niagara Mohawk, a National Grid Company  
Cyprus Amax Minerals Company  
Respondents.

Site Code # 932010

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WHEREAS,

1. The New York State Department of Environmental Conservation (the "Department") is responsible for enforcement of Article 27, Title 13 of the Environmental Conservation Law of the State of New York ("ECL"), entitled "Inactive Hazardous Waste Disposal Sites." This Order is issued pursuant to the Department's authority under, inter alia, ECL Article 27, Title 13 and ECL 3-0301.
2. The Vanadium Corporation of America Site (the "Site") is located in the Town of Niagara, Niagara County. The Site has been listed in the Registry of Inactive Hazardous Waste Disposal Sites in New York State as Site Number 932001. The Site includes real property parcels owned by Airco Properties, Inc. (25 acres), SKW Metals and Alloys, Inc. (37 acres), and the Power Authority of New York and Niagara Mohawk, a National Grid Company ("Niagara Mohawk") (approximately 50 acres). The SKW Metals and Alloys, Inc. parcel has been designated by the Department as Operable Unit No. 1. The Airco Properties, Inc. parcel has been designated by the Department as Operable Unit No. 2. The New York Power Authority and Niagara Mohawk parcel has been designated by the Department as Operable Unit No. 3 ("OU-3"). The focus of this Order is limited to OU-3. A map of OU-3 is attached to this Order as Appendix "A".
3. The Department has determined that the Site is an inactive hazardous waste disposal site, as that term is defined at ECL 27-1301.2, and presents a significant threat to the public health or environment. The Department has classified the Site as a Classification "2" pursuant to ECL 27-1305.4.b.

4. Respondents are:

A. Niagara Mohawk, a National Grid Company, is a corporation organized and existing under the laws of the State of New York with offices at 300 Erie Boulevard West, Syracuse, New York 13202-4250.

B. New York Power Authority: New York Power Authority is a New York State public benefit corporation with offices at 123 Main Street, White Plains, New York 10601.

C. Cyprus Amax Minerals Company: The Vanadium Corporation of America owned the Site from 1920 to 1964 and operated the Site from 1920 to 1960. Cyprus Amax Minerals Company, a corporation organized and existing under the laws of the State of Delaware with offices at One North Central Avenue, Phoenix Arizona 85004, has assumed responsibility for the environmental liabilities of the Vanadium Corporation of America at the Site.

5. A. Pursuant to ECL 27-1313.3.a, whenever the Commissioner of Environmental Conservation (the "Commissioner") "finds that hazardous wastes at an inactive hazardous waste disposal site constitute a significant threat to the environment, he may order the owner of such site and/or any person responsible for the disposal of hazardous wastes at such site (i) to develop an inactive hazardous waste disposal site remedial program, subject to the approval of the department, at such site, and (ii) to implement such program within reasonable time limits specified in the order."

B. Any person under order pursuant to ECL 27-1313.3.a has a duty imposed by ECL Article 27, Title 13 to carry out the remedial program committed to under order. ECL 71-2705 provides that any person who fails to perform any duty imposed by ECL Article 27, Title 13 shall be liable for civil, administrative and/or criminal sanctions.

C. The Department also has the power, inter alia, to provide for the prevention and abatement of all water, land, and air pollution. ECL 3-0301.1.i.

6. The Department and Respondents agree that the goals of this Order are for Respondents to (i) develop and implement a Remedial Investigation/Feasibility Study ("RI/FS") for OU-3 in accordance with the Department approved Scope of Work; and (ii) reimburse the State's administrative costs in accordance with Paragraph XI of this Order.

7. Solely with regard to the matters set forth below, Respondents, hereby waive their right to a hearing herein as provided by law, and consent to the issuance and entry of this Order, and agree to be bound by its terms. Respondents consent to and agree not to contest the authority or jurisdiction of the Department to issue or enforce this Order, and agree not to contest the validity of this Order or its terms.

8. Respondents consent to the Department's issuance of this Order without (i) an admission or finding of liability, fault, wrongdoing, or violation of any law, regulation, permit, order or requirement or standard of care of any kind whatsoever, or (ii) an acknowledgment that there has

been a release or threatened release of hazardous waste or that the release or threatened release of hazardous waste at or from the Site, including OU-3, constitutes a significant threat to public health or the environment.

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

I. Site Information

Respondents New York Power Authority and Niagara Mohawk, with respect to OU-3, and Respondent Cyprus Amax Minerals Company, with respect to the Site, certify that all information known to Respondents or in their possession and control relating to contamination existing on the effective date of this Order and to any past or potential future release of hazardous substances, pollutants or contaminants has been fully and accurately disclosed to the Department.

II. RI/FS Work Plan Contents and Submittals

A. In accordance with the schedule in the Department-approved Scope of Work which is attached to and incorporated into this Order as Appendix "B", Respondents shall submit to the Department a detailed work plan describing the methods and procedures to be implemented in performing an RI/FS for OU-3 ("RI/FS Work Plan").

B. (1) The RI/FS Work Plan shall include, but not be limited to, the following:

a. A chronological description of the anticipated RI/FS activities together with a schedule for the performance of these activities.

b. A Sampling and Analysis Plan that shall include:

(i) A quality assurance project plan that describes the quality assurance and quality control protocols necessary to achieve the initial data quality objectives. This plan shall designate a data validation expert and must describe such individual's qualifications and experience.

(ii) A field sampling plan that defines sampling and data gathering methods in a manner consistent with the "Field Methods Compendium," OSWER Directive 9285.2-11 (draft June 1993), as supplemented by the Department.

c. A health and safety plan to protect persons at and in the vicinity of OU-3 during the performance of the RI/FS which shall be prepared in accordance with 29 CFR 1910 and all other applicable standards by a certified health and safety professional. Respondents shall add supplemental items to this plan necessary to ensure the health and safety of all persons at or in the vicinity of the Site during the performance of any work pursuant to this Order.

d. A citizen participation plan that is, at a minimum, consistent with the Department's publication, "Citizen Participation in New York's Hazardous Waste Site Remediation Program: A Guidebook", dated June 30, 1998, and any subsequent revisions thereto, and 6 NYCRR Part 375.

(2) The RI/FS Work Plan shall incorporate all relevant elements of a RI/FS as set forth in the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 ("CERCLA") [42 USC 9601 *et seq.*], as amended, the National Contingency Plan ("NCP") of March 8, 1990 [40 CFR Part 300], the USEPA guidance document entitled "Guidance for Conducting Remedial Investigations and Feasibility Studies under CERCLA," dated October 1988, and any subsequent revisions to that guidance document in effect at the time the RI/FS Work Plan is submitted, and appropriate USEPA and Department technical and administrative guidance documents.

### III. Performance and Reporting of Remedial Investigation

A. Respondents shall perform the Remedial Investigation in accordance with the Department-approved RI/FS Work Plan and the schedule contained therein.

B. During the performance of any construction activities undertaken for the Remedial Investigation, Respondents shall have on-Site a full-time representative who is qualified to supervise the work done.

C. Within the time frame set forth in the Department-approved RI/FS Work Plan, Respondents shall prepare a Remedial Investigation Report that shall:

(1) include all data generated and all other information obtained during the Remedial Investigation:

(2) provide all relevant assessments and evaluations set forth in CERCLA, the NCP, and the guidance documents identified in Subparagraph II.B.2;

(3) identify any additional data that must be collected; and

(4) include a certification by the individual or firm with primary responsibility for the day to day performance of the Remedial Investigation that all activities that comprised the Remedial Investigation were performed in full accordance with the Department-approved RI/FS Work Plan.

### IV. Feasibility Study

A. In accordance with the schedule contained in the Department-approved RI/FS Work Plan, Respondents shall submit a Feasibility Study evaluating remedial actions to

eliminate, to the maximum extent practicable, all health and environmental hazards and potential hazards at OU-3. The Feasibility Study shall be prepared by and have the signature and seal of a professional engineer who shall certify that the Feasibility Study was prepared in accordance with this Order.

B. Respondents shall prepare the Feasibility Study in accordance with the Department-approved RI/FS Work Plan and in a manner consistent with CERCLA, the NCP, and the guidance documents identified in Subparagraph II.B.2.

V. Interim Remedial Measures

A. Respondents may propose one or more IRMs for OU-3.

B. In proposing each IRM, Respondents shall submit to the Department a work plan that includes a chronological description of the anticipated IRM activities together with a schedule for performance of those activities (an "IRM Work Plan").

C. Upon the Department's determination that the proposal is an appropriate IRM and upon the Department's approval of such work plan, the IRM Work Plan shall be incorporated into and become an enforceable part of this Order; and Respondents shall submit to the Department for its review and (as appropriate) approval, in accordance with the schedule contained in the Department-approved IRM Work Plan, detailed documents and specifications prepared, signed, and sealed by a professional engineer to implement the Department-approved IRM. Such documents shall include a health and safety plan, contingency plan, and (if the Department requires such) a citizen participation plan that incorporates appropriate activities outlined in the Department's publication, "Citizen Participation in New York's Hazardous Waste Remediation Program: A Guidebook" dated June 30, 1998, and any revisions thereto, and 6 NYCRR Part 375. Respondents shall then carry out such IRM in accordance with the requirements of the approved IRM Work Plan, detailed documents and specifications, and this Order. Respondents shall notify the Department of any significant difficulties that may be encountered in implementing the Department-approved work plan, detailed documents, or specifications and shall not modify any obligation unless first approved by the Department.

D. During implementation of all construction activities identified in the Department-approved IRM Work Plan, Respondents shall have on-Site a full-time representative who is qualified to supervise the work done and who may be an employee of a contractor engaged by Respondents.

E. Within the schedule contained in the Department-approved IRM Work Plan, Respondents shall submit to the Department a final engineering report prepared by a professional engineer that includes a certification by that individual that all activities that comprised the Department-approved IRM were completed in accordance with the Department-approved IRM Work Plan and this Order.



1. If the performance of the Department-approved IRM encompassed construction activities, the final engineering report also shall include a detailed post-remedial construction operation and maintenance plan ("IRM O&M Plan"); "as-built" drawings and a final engineering report (each including all changes made to the Remedial Design during construction); and a certification by a professional engineer that the IRM was implemented and all construction activities were completed in accordance with the Department-approved detailed documents and specifications for the IRM and all such activities were personally witnessed by him or her or by a person under his or her direct supervision. The IRM O&M Plan, "as built" drawings, final engineering report, and certification must be prepared, signed, and sealed by a professional engineer.

2. Upon the Department's approval of the IRM O&M Plan, Respondents shall implement the IRM O&M Plan in accordance with the requirements of the Department-approved IRM O&M Plan.

F. After receipt of the final engineering report and certification, the Department shall notify Respondents in writing whether the Department is satisfied that the IRM was completed in compliance with the Department-approved IRM Work Plan and design.

#### VI. Progress Reports

Respondents shall submit to the parties identified in Subparagraph XV.A in the numbers specified in Subparagraph XV.B copies of written quarterly progress reports that:

A. describe the actions which have been taken toward achieving compliance with this Order during the reporting period;

B. include all results of sampling and tests and all other data received or generated by Respondents or Respondents' contractors or agents in the reporting period, including quality assurance/quality control information, whether conducted pursuant to this Order or conducted independently by Respondents;

C. identify all work plans, reports, and other deliverables required by this Order that were completed and submitted during the reporting period;

D. describe all actions, including, but not limited to, data collection and implementation of work plans, that are scheduled for the next reporting period and provide other information relating to the progress at OU-3;

E. include information regarding percentage of completion, unresolved delays encountered or anticipated that may affect the future schedule for implementation of Respondents' obligations under the Order, and efforts made to mitigate those delays or anticipated delays;

F. include any modifications to any work plans that Respondents have proposed to the Department or that the Department has approved; and

G. describe all activities undertaken in support of the Citizen Participation Plan during the previous reporting period and those to be undertaken in the next reporting period. Respondents shall submit these progress reports to the Department by the tenth day of every reporting period following the effective date of this Order.

During performance of the RI and any Department-approved IRMs Respondents also shall allow the Department to attend, and shall provide the Department at least seven days advance notice of, any of the following: field activities, job progress meetings, substantial completion meeting and inspection, and final inspection and meeting.

## VII. Review of Submittals

A. 1. The Department shall review each of the submittals Respondents make pursuant to this Order 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 generally accepted technical and scientific principles. The Department shall notify Respondents in writing of its approval or disapproval of the submittal. All Department-approved submittals shall be incorporated into and become an enforceable part of this Order.

2. a. If the Department disapproves a submittal, it shall so notify Respondents in writing and shall specify the reasons for its disapproval. Within 30 days after receiving written notice that Respondents' submittal has been disapproved, Respondents shall make a revised submittal to the Department that addresses and seeks to resolve all of the Department's stated reasons for disapproving the first submittal.

b. After receipt of the revised submittal, the Department shall notify Respondents in writing of its approval or disapproval. If the Department disapproves the revised submittal, Respondents shall be in violation of this Order as of the date of the disapproval unless Respondents request an opportunity to review the Department's objections pursuant to the dispute resolution procedure set forth in Paragraph VIII of this Order, and the Department may take any action or pursue whatever rights it has pursuant to any provision of statutory or common law. If the Department approves the revised submittal, it shall be incorporated into and become an enforceable part of this Order.

B. Subject to the dispute resolution procedure set forth in Paragraph VIII of this Order, Respondents shall modify and/or amplify and expand a submittal upon the Department's direction to do so if the Department determines, as a result of reviewing data generated by an activity required under this Order or as a result of reviewing any other data or facts, that further work is necessary to accomplish the purposes of this Order.

## VIII. Dispute Resolution

A. If the Department disapproves a revised submittal pursuant to Subparagraph VII.A of this Order or if Respondents fail to modify and/or amplify and expand a submittal pursuant to Subparagraph VII.B of this Order, Respondents shall be in violation of this Order unless within ten (10) days of receipt of the Department's written notice of disapproval of the revised submittal or of the Department's written determination of the need for further work pursuant to Subparagraph VII.B, Respondents submit to the Department a request for dispute resolution, and a written statement of the issues in dispute, the relevant facts upon which the dispute is based, factual data, analysis or opinion supporting their position, and all supporting documentation upon which Respondents rely (hereinafter called the "Statement of Position"). A copy of such request and written statement shall be provided to the parties listed under Subparagraph XV.A.

B. 1. Disputes shall be heard by the Assistant Division Director of the Division of Environmental Remediation (the "ADD").

2. The Department shall serve its Statement of Position no later than twenty (20) days after receipt of Respondents' Statement of Position.

3. Respondents shall have the burden of proving by a preponderance of the evidence that the Department's position is not in accordance with law or otherwise should not prevail. The ADD can conduct meetings, in person or via telephone conferences, and request additional information from either party if such activities will facilitate a resolution of the issues.

4. The ADD will issue a final decision resolving the dispute in a timely manner. The final decision shall constitute a final agency action and Respondents shall have the right to seek judicial review of the decision pursuant to Article 78 of the CPLR provided that Respondents notify the Department within forty-five (45) days after receipt of a copy of the decision that it intends to file an Article 78. Respondents shall be in violation of this Order if they fail to comply with the final decision resolving this dispute within forty-five (45) days after such final decision, or such other time period as may be provided in the final decision, unless they seek judicial review of such decision within the forty-five (45) day period provided. In the event that Respondents seek judicial review, Respondents shall be in violation of this Order if they fail to comply with the final court order or settlement within thirty (30) days after such order is issued or settlement, unless otherwise directed by the Court. For purposes of this Paragraph, a determination shall be not final until the time to perfect an appeal of that determination has expired.

5. The invocation of dispute resolution shall not extend, postpone or modify Respondents' obligations under this Order that are not dependent on a matter or item in dispute unless or until the Department agrees or a court determines otherwise.

6. The Department shall keep an administrative record which shall be available consistent with Article 6 of the Public Officers Law.

IX. Penalties

A. Respondents' failure to comply with any term of this Order constitutes a violation of this Order and the ECL.

B. Respondents shall not suffer any penalty under this Order or be subject to any proceeding or action if it cannot comply with any requirement hereof because of war, riot, labor unrest, or an unforeseeable condition arising exclusively from natural causes which the exercise of ordinary human prudence could not have prevented. Respondents shall, within five days of obtaining knowledge of any such condition, notify the Department in writing. Respondents shall include in such notice the measures taken and to be taken by Respondents to prevent or minimize any delays and shall request an appropriate extension or modification of this Order. Failure to give such notice within such five-day period constitutes a waiver of any claim that a delay is not subject to penalties. Respondents shall have the burden of proving that an event is a defense to compliance with this Order pursuant to Subparagraph IX.B.

X. Entry upon Site

Respondents hereby consent to the entry upon OU-3 or areas in the vicinity of OU-3 which may be under the control of Respondents by any duly designated employee, consultant, contractor, or agent of the Department or any State agency for purposes of inspection, sampling, and testing and to ensure Respondents' compliance with this Order. Respondents shall provide the Department with suitable office space at the Site, including access to a telephone to the extent either is available. Upon request Respondents shall permit the Department full access to all non-privileged records relating to matters addressed by this Order. Raw data is not considered privileged and that portion of any privileged document containing raw data must be provided to the Department.

XI. Payment of State Costs

A. Within 60 days after receipt of an itemized invoice from the Department, Respondents shall pay to the Department a sum of money which shall represent reimbursement for the State's expenses including, but not limited to, direct labor, fringe benefits, indirect costs, travel, analytical costs, and contractor costs incurred by the State of New York for work related to the development and implementation of the remedial investigation and feasibility study for OU-3, as well as for reviewing and revising submittals made pursuant to this Order, overseeing activities conducted pursuant to this Order, collecting and analyzing samples, and administrative costs associated with this Order.

B. The costs payable pursuant to this Order as set forth in Paragraph XI of this Order

shall be those costs associated with OU-3 incurred after August 1, 2000 through the Department written approval of the feasibility study for OU-3.

C. Such invoice shall be sent to Respondents at the following address:

Michael D. Leach  
Senior Environmental Engineer  
Environmental Land & Water Department  
Phelps Dodge Corporation  
One North Central Avenue  
Phoenix, Arizona 85004

D. Payment shall be made by certified check payable to the Department of Environmental Conservation and shall be sent to:

Bureau of Program Management  
Division of Environmental Remediation  
New York State Department of Environmental Conservation  
625 Broadway  
Albany, NY 12233-7010.

E. Each party shall notify the other within 90 days of change in the foregoing addresses.

F. Personal service costs shall be documented by reports of Direct Personal Service, which shall identify the employee name, title, biweekly salary, and time spent (in hours) on the project during the billing period, as identified by an assigned time and activity code. Approved agency fringe benefit and indirect cost rates shall be applied. Non-personal service costs shall be summarized by category of expense (e.g., supplies, materials, travel, contractual) and shall be documented by expenditure reports.

G. The Department reserves the right to seek reimbursement from any responsible parties for any State costs associated with the Vanadium Corporation of America Site, including OU-3, which are not reimbursed under this Order, and from Respondents for costs associated with the Vanadium Corporation of America Site which are not incurred by the State in connection with this Order. Respondents reserve all of their rights, remedies and defenses in such regard, including the right to seek indemnity, contribution or other recovery or remedy from other parties.

## XII. Department Reservation of Rights

A. Nothing contained in this Order shall be construed as barring, diminishing,

adjudicating, or in any way affecting any of the Department's civil, criminal, or administrative rights or authorities.

B. Nothing contained in this Order shall be construed to prohibit the Commissioner or his duly authorized representative from exercising any summary abatement powers.

XIII. Indemnification

Respondents shall indemnify and hold the Department, the State of New York, and their representatives and employees harmless for all claims, suits, actions, damages, and costs of every name and description arising out of or resulting from the fulfillment or attempted fulfillment of this Order by Respondents and/or any of Respondents' directors, officers, employees, servants, agents, successors, and assigns except to the extent such claims, suits, actions, damages, and costs are attributable to the gross negligence or willful misconduct of the Department, or its representatives, agents or contractors.

XIV. Public Notice

A. Within sixty (60) days after the effective date of this Order Respondents shall cause to be filed a Department-approved Notice of Order with the Clerk of Niagara County to give all parties who may acquire any interest in OU-3 notice of this Order. Within thirty (30) days of such filing Respondents shall provide the Department with a copy of such instrument certified by the Niagara County Clerk to be a true and faithful copy.

B. If Respondent Niagara Mohawk or Respondent New York Power Authority proposes to convey the whole or any part of its ownership interest in OU-3, such Respondent shall, not fewer than 60 days before the date of conveyance, notify the Department in writing of the identity of the transferee and of the nature and proposed date of the conveyance and shall notify the transferee in writing, with a copy to the Department, of the applicability of this Order.

XV. Communications

A. All written communications required by this Order shall be transmitted by the United States Postal Service, by private courier service, or hand delivered as follows:

1. Communication from Respondents shall be sent to:

Regional Environmental Remediation Engineer Region 9  
New York State Department of Environmental Conservation  
270 Michigan Avenue  
Buffalo, New York 14203-2999

with copies to:

Director, Division of Environmental Remediation  
New York State Department of Environmental Conservation  
625 Broadway  
Albany, New York 12233-5500

Matthew J. Forcucci  
Environmental Health Specialist II  
New York State Department of Health  
Western Regional Office  
Division of Environmental Health Assessment  
584 Delaware Avenue  
Buffalo, New York 14202-1295

Gary Litwin, Bureau of Environmental Exposure Investigation  
New York State Department of Health  
Flanigan Square  
547 River Street  
Troy, New York 12180-2216

Division of Environmental Enforcement  
New York State Department of Environmental Conservation  
270 Michigan Avenue  
Buffalo, New York 14203-2999

2. Communication to be made from the Department to Respondents shall be sent to:

Michael D. Leach  
Senior Environmental Engineer  
Environmental Land & Water Department  
Phelps Dodge Corporation  
One North Central Avenue  
Phoenix, Arizona 85004

James J. Hamula, Esq.  
Gallagher & Kennedy, P.A.  
2575 East Camelback Road  
Phoenix, Arizona 85016-9225

James D. Lyons, Esq.  
New York Power Authority  
123 Main Street  
White Plains, New York 10601

William J. Holzhauser, Esq.  
Niagara Mohawk, a National Grid Company  
300 Erie Boulevard West  
Syracuse, New York 13202

B. Copies of work plans and reports shall be submitted as follows:

1. Four copies (one unbound) to the Regional Engineer in Buffalo.
2. Two copies to the Western Regional Office, New York State Department of Health.
3. One copy to the Director, Division of Environmental Remediation.
4. One copy to the Division of Environmental Enforcement in Buffalo.
5. Copies of cover letters to Bureau of Environmental Exposure Investigation New York State Department of Health.

C. 1. Within 30 days of the Department's approval of any report submitted pursuant to this Order, Respondents shall submit to the Regional Environmental Remediation Engineer in Buffalo, a computer readable magnetic media copy of the approved report in American Standard Code for Information Interchange (ASCII) format.

2. Within 30 days after the Department's approval of the RI/FS, Respondents shall submit one microfilm copy of the RI/FS to Director, Division of Environmental Remediation.

D. The Department and Respondents reserve the right to designate additional or different addressees for communication or written notice to the other.

#### XVI. Termination of Order

This Order will terminate upon the Department's written approval of the feasibility study for OU-3. Notwithstanding the foregoing the provisions contained in Paragraph XI and XIII shall survive the termination of this Order and any violation of such surviving Paragraphs shall be a violation of this Order, the ECL and 6 NYCRR Section 375-1.2(d).

#### XVII. Miscellaneous

A. 1. All activities and submittals required by this Order shall address contamination resulting from the disposal of hazardous wastes at OU-3 including any contamination outside of OU-3 that is attributable to the disposal of hazardous wastes at OU-3.



2. All activities Respondents are required to undertake under this Order are ordinary and necessary expenses for the continued operation of Respondents.

B. Respondents shall retain professional consultants, contractors, laboratories, quality assurance/quality control personnel, and third party data validators acceptable to the Department to perform the technical, engineering, and analytical obligations required by this Order. Respondents intend to use the services of Golder Associates, Inc. to perform certain of the technical work under this Order and this is acceptable to the Department. Respondents shall not use any other firm to perform the technical work under this Order without submitting the respective experience, capabilities, and qualifications of the firms or individuals selected by Respondents to the Department for approval. The Department's approval of these firms or individuals shall be obtained before the start of any activities for which Respondents and such firms or individuals will be responsible. The responsibility for the performance of the professionals retained by Respondents shall rest solely with Respondents.

C. The Department shall have the right to obtain split samples, duplicate samples, or both, of all substances and materials sampled by Respondents, and the Department also shall have the right to take its own samples. Respondents shall make available to the Department the results of all sampling and/or tests or other data generated by Respondents with respect to implementation of this Order and shall submit these results in the progress reports required by this Order.

D. Respondents shall notify the Department at least 10 working days in advance of any field activities to be conducted pursuant to this Order.

E. 1. Respondents shall use best efforts to obtain all site access, permits, easements, rights-of-way, rights-of-entry, approvals, institutional controls or authorizations necessary to perform Respondents' obligations under this Order, except that the Department may exempt Respondents from the requirement to obtain any permit issued by the Department for any activity that is conducted on OU-3 and that the Department determines satisfies all substantive technical requirements applicable to like activity conducted pursuant to a permit. If any necessary access, permits, easements, rights-of-way, rights-of-entry, approvals, or authorizations required to perform this Order are not obtained despite best efforts within forty-five (45) days after the effective date of this Order, or within forty-five (45) days after the date the Department notifies Respondents in writing that additional access beyond that previously secured is necessary, Respondents shall promptly notify the Department, and shall include in that notification a summary of the steps Respondents have taken to attempt to obtain access. The Department may, as it deems appropriate and within its authority, assist Respondents in obtaining access.

F. Respondents and their officers, directors, agents, servants, employees, successors, and assigns shall be bound by this Order. Any change in ownership or corporate status of Respondents including, but not limited to, any transfer of assets or real or personal property shall

in no way alter Respondents' responsibilities under this Order. Respondents' officers, directors, employees, servants, and agents shall be obliged to comply with the relevant provisions of this Order in the performance of their designated duties on behalf of Respondents.

G. Respondents shall provide a copy of this Order to each contractor hired to perform work required by this Order and to each person representing Respondents with respect to OU-3 and shall condition all contracts entered into in order to carry out the obligations identified in this Order upon performance in conformity with the terms of this Order. Respondents or Respondents' contractors shall provide written notice of this Order to all subcontractors hired to perform any portion of the work required by this Order. Respondents shall nonetheless be responsible for ensuring that Respondents' contractors and subcontractors perform the work in satisfaction of the requirements of this Order.

H. All references to "professional engineer" in this Order are to an individual registered as a professional engineer in accordance with Article 145 of the New York State Education Law. If such individual is a member of a firm, that firm must be authorized to offer professional engineering services in the State of New York in accordance with Article 145 of the New York State Education Law.

I. All references to "days" in this Order are to calendar days unless otherwise specified.

J. The paragraph headings set forth in this Order are included for convenience of reference only and shall be disregarded in the construction and interpretation of any of the provisions of this Order.

K. 1. No term, condition, understanding, or agreement purporting to modify or vary any term of this Order shall be binding unless made in writing and subscribed by the party to be bound. No informal advice, guidance, suggestion, or comment by the Department regarding any report, proposal, plan, specification, schedule, or any other submittal shall be construed as relieving Respondents of their obligation to obtain such formal approvals as may be required by this Order.

2. If Respondents desire that any provision of this Order be changed, Respondents shall make timely written application, signed by Respondents, to the Commissioner setting forth reasonable grounds for the relief sought. Copies of such written application shall be delivered or mailed to the Division of Environmental Enforcement and to the Regional Environmental Remediation Engineer.

L. The obligations of the Respondents under this Order are joint and several and the "bankruptcy" or failure by any Respondent to implement the obligations under this Order shall not affect the obligations of the remaining Respondent(s) to carry out the obligations under this Order.


M. The effective date of this Order is the date the Commissioner or the Commissioner's designee signs it.

DATED:

6/11/02

ERIN M. CROTTY, COMMISSIONER  
New York State Department  
of Environmental Conservation

By:



Michael J. O'Toole, Jr.

CONSENT BY RESPONDENT

Respondent hereby consents to the issuing and entering of this Order, waives Respondent's right to a hearing herein as provided by law, and agrees to be bound by this Order.

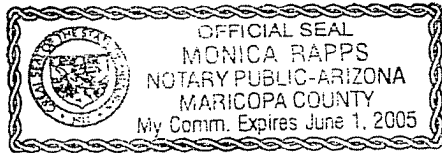
By: *David Colton*  
Cyprus Amax Minerals Company

Title: SENIOR VICE PRESIDENT AND GENERAL COUNSEL

Date: MAY 28, 2002

STATE OF ARIZONA        )  
  ) s.s.:  
COUNTY OF MARICOPA    )

On this 28th day of MAY in the year 2002 before me, the undersigned, a notary public in and for said State, personally appeared S. DAVID COLTON, personally known to me or proved to me on the basis of satisfactory evidence to be the individual(s) whose name(s) is (are) subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their capacity(ies), and that by his/her/their signature(s) on the instrument, the individual(s) or the person upon behalf of which the individual(s) acted, executed this instrument.



*Monica Rapps*  
Notary Public

CONSENT BY RESPONDENT

Respondent hereby consents to the issuing and entering of this Order, waives Respondent's right to a hearing herein as provided by law, and agrees to be bound by this Order.

By: Joseph M. Kwasnik *JKW*  
Niagara Mohawk, a National Grid Company

Title: Vice President - Environmental

Date: 5/15/2

STATE OF NEW YORK )  
 ) s.s.:  
COUNTY OF Onondaga )

On this 15<sup>th</sup> day of May in the year 2002 before me, the undersigned, a notary public in and for said State, personally appeared Joseph M. Kwasnik, personally known to me or proved to me on the basis of satisfactory evidence to be the individual(s) whose name(s) is (are) subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their capacity(ies), and that by his/her/their signature(s) on the instrument, the individual(s) or the person upon behalf of which the individual(s) acted, executed this instrument.

*Vicki L. Williams*  
Notary Public *W*

VICKI L. WILLIAMS *P. 10 2 24*  
Notary Public in the State of New York  
Qualified in Onondaga County, No. 4848074  
My Commission Expires March 30, 20 03

CONSENT BY RESPONDENT

Respondent hereby consents to the issuing and entering of this Order, waives Respondent's right to a hearing herein as provided by law, and agrees to be bound by this Order.

By: *Ronald W. C...*  
New York Power Authority

Title: *Records Manager*

Date: *5/16/2002*

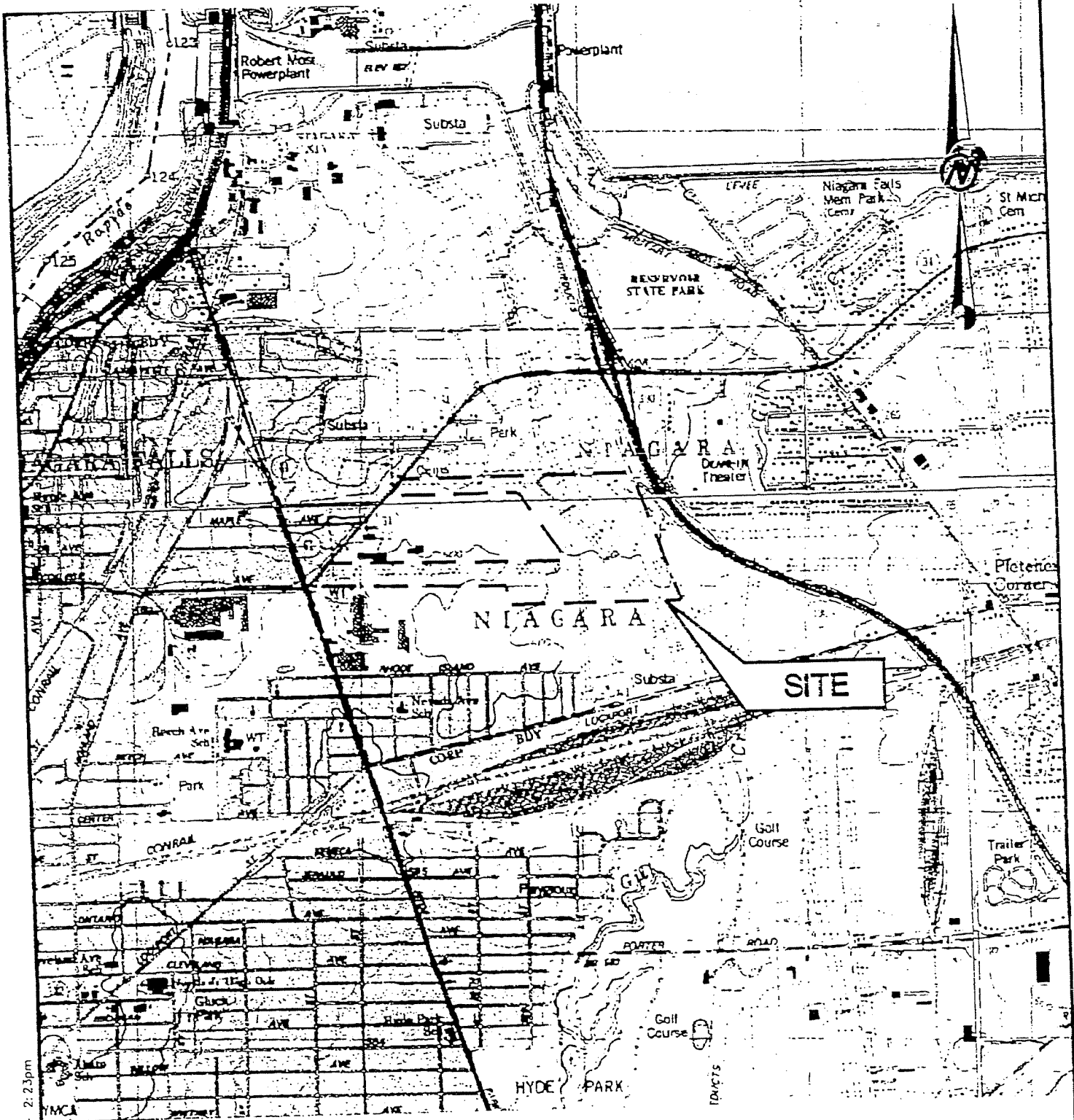
STATE OF NEW YORK )  
 ) s.s.:  
COUNTY OF )

On this *16* day of *May* in the year 2002 before me, the undersigned, a notary public in and for said State, personally appeared *Ronald W. C...* personally known to me or proved to me on the basis of satisfactory evidence to be the individual(s) whose name(s) is (are) subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their capacity(ies), and that by his/her/their signature(s) on the instrument, the individual(s) or the person upon behalf of which the individual(s) acted, executed this instrument.

*Mary E. Stessing*  
Notary Public

MARY E. STESSING  
NOTARY PUBLIC, State of New York  
Appointed in Erie County  
Commission Expires Dec. 16, 2002

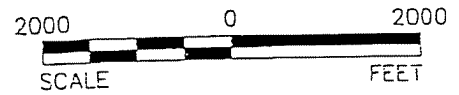
# Appendix A




Dec 04, 2001 - 2:23pm  
 Drawing file: 0139293A001.dwg

**REFERENCES**

- 1.) BASE MAP TAKEN FROM U.S.G.S. 7.5 MINUTE QUADRANGLE OF NIAGARA FALLS, LEWISTON, RANSOMVILLE, AND TONAWANDA WEST, DATED 1980.
- 2.) PROPERTY BOUNDARY APPROXIMATE.



 <b>Golder Associates</b> Philadelphia USA	SCALE	AS SHOWN	TITLE  <b>SITE LOCATION MAP</b>		
	DATE	10/17/01			
	DESIGN	AFF			
	CADD	AM			
	CHECK	JPR			
FILE No.	0139293A001	REVIEW	BCJ	FORMER VANADIUM CORPORATION SITE OPERABLE UNIT #3, TOWN OF NIAGARA, NEW YORK	FIGURE <b>1</b>
PROJECT No.	013-9293	REV.	0		



# Appendix B

## I. PURPOSE

This Scope of Work ("SOW") sets forth the tasks that Respondents shall perform in completing the remedial investigation and feasibility study ("RI/FS") mandated by the Order on Consent (the "Order"), to which this SOW is attached. This SOW also provides a schedule for performance of these tasks. Timely completion and performance to the NYSDEC's and NYSDOH's satisfaction, and in accordance with the Order, of the tasks set forth in this SOW shall constitute completion of Respondents' obligation to perform an RI/FS under the Order.

## II. WORK TO BE PERFORMED

A. Introduction. Operable Unit #3 ("OU3") has been partially characterized by other investigations, which have included "Preliminary Site Assessment, ABB Environmental Services, September 1993" and "Immediate Investigative Work Assignment , NYSDEC, August 1997." Respondents agree to perform additional work in order to complete the characterization of OU3. This additional work shall proceed in phases, with each phase being conducted pursuant to a NYSDEC-approved work plan. Each work plan shall describe in detail the tasks, methods, procedures, and reports that Respondents shall perform in pursuing a phase of work. According to the schedule set forth below, each work plan shall be submitted to the NYSDEC for review and approval in accordance with the terms of the Order and, upon approval, shall be implemented by Respondents. Taken together, the several work plans prepared by Respondents pursuant to this SOW shall, upon approval by the NYSDEC, constitute the "RI/FS Work Plan" contemplated by the Order.

### B. Phase 1: Additional Data Collection

Respondents have submitted to the NYSDEC the Delineation of Surface Water Bodies, Wetlands, and Ecological Receptors Report which provides a fish and wildlife impact analysis (FWIA; Step #1), wetland survey, and groundwater evaluation. Following receipt of the NYSDEC comments on the Report, Respondents shall evaluate all environmental information and data developed relative to

OU3, determine what additional environmental data collection may be necessary and, within 90 days of Respondents' receipt of the NYSDEC comments, provide a work plan to the NYSDEC to gather additional data, if necessary (a "Phase 1 Work Plan"). The Phase I Work Plan shall identify the data deficiencies and propose Respondents' plans for collecting the additional environmental data, including a schedule. In addition, the Phase 1 Work Plan shall include a Sampling and Analysis Plan, which includes a Quality Assurance Project Plan, Field Sampling Plan, Health and Safety Plan, NYSDOH Community Air Monitoring Plan, and a Citizen Participation Plan. The focus of any additional data collection activities shall be to address deficiencies in the current data set and complete the human health impact evaluation (Phase 2).

If the NYSDEC approves the Phase 1 Work Plan, Respondents shall proceed with the additional environmental data collection within 30 days of receipt of the NYSDEC approval. If the NYSDEC does not approve the Phase 1 Work Plan, the NYSDEC shall identify the additional environmental data Respondents should collect and explain its rationale for the additional data collection, and Respondents shall revise and commence execution of the Phase 1 Work Plan accordingly within 30 days of receipt of the NYSDEC comments (subject to the dispute resolution provisions of the Order). Data obtained from the Phase 1 activities shall be tabulated and discussed in a letter report to be submitted to the NYSDEC within 30 days of Respondents' receipt of all analytical results from the laboratory ("Phase 1 Report").

C. Phase 2: Evaluation of Human-Health Impacts

Upon the NYSDEC's written approval of the Phase 1 Report, Respondents shall evaluate the human-health impacts posed by contaminants of concern at the OU3 site, utilizing the data gathered in previous investigations and in Phase 1. The human-health impact evaluation shall be performed pursuant to a work plan (the "Phase 2 Work Plan"), which shall be submitted to the NYSDEC within 60 days of the NYSDEC's written approval of the Phase 1 Report. The human-health impact evaluation shall be submitted to the NYSDEC in written form within 120 days of the NYSDEC's written approval of the Phase 2 Work Plan.

The human-health impact evaluation shall consist of a baseline human-health risk assessment consistent with CERCLA guidance (Risk Assessment Guidance for Superfund or RAGS). A detailed

description of the proposed assessment shall be included in the Phase 2 Work Plan, as well as a schedule for completion of the assessment. The components of the baseline assessment shall be as follows:

a. Identification of Contaminants of Concern (COCs)

Previous investigations have identified the presence of elevated concentrations of various contaminants at OU3. To simplify the risk assessment process, contaminants generally targeted for evaluation are those that are detected in significantly elevated concentrations and also possess relatively high toxicity characteristics. For contaminant screening purposes, maximum concentrations of contaminants in soils shall be compared to both EPA Region III Risk-Based Concentrations (RBCs) and Region IX Preliminary Remediation Goals, as well as NYSDEC TAGM 4046 Determination of Soil Cleanup Objectives and Cleanup Levels. Groundwater quality data will be compared to Primary Maximum Contaminant Levels (MCLs). Contaminant detected in excess of these screening levels shall be carried through to the Exposure Assessment phase of the baseline risk assessment.

b. Exposure Assessment

A Site Conceptual Exposure Model shall be developed for OU3. Development of the conceptual model shall consider factors such as current and future land use, current and potential future receptors, standard exposure duration and frequency values shall be utilized for industrial/commercial and residential receptors. However, different exposure duration and frequency values would need to be developed for other identified receptors, such as trespassers.

All potential exposure pathways shall be evaluated for select receptors to determine which pathways are complete. For complete exposure pathways, representative exposure concentrations of contaminated media will be conservatively determined by calculating the 95% upper confidence limit of the arithmetic mean for a normal distribution. Chemicals intakes by select receptors will be calculated utilizing equations provided in RAGS. In addition, depending on the individual COC, adjustments to calculated chemical intakes may be appropriate based upon the bioavailability of the chemical.

c. Toxicity Assessment

Information regarding the carcinogenic and non-carcinogenic effects of the identified COCs shall be summarized for the identified complete exposure routes (dust inhalation, dermal contact, ingestion). Cancer slope factors and reference dose level information shall be obtained from the latest version of the EPA Region III RBC Table. If no information is available regarding the toxicity of a contaminant for a particular complete pathway, extrapolation of data from other exposure routes shall be utilized.

d. Risk Characterization

Both carcinogenic risk and noncarcinogenic hazardous index values shall be quantified utilizing standard risk quantification equations.

D. Phase 3: Remedial Investigation Report

Upon the NYSDEC's written approval of the Phase 2 Report, Respondents shall submit a work plan for the preparation of a remedial investigation ("RI") report, which shall include a schedule for the preparation of the RI report (the "Phase 3 Work Plan"). Within 30 days of the NYSDEC's written approval of the Phase 3 Work Plan, Respondents shall commence the preparation of the RI report.

The RI report shall discuss and evaluate the information and data obtained from all previous site investigation activities. In addition, results and discussion of the human-health impact evaluation (Phase 2) shall be provided within the RI report. Individual reports for this evaluation shall be included as an appendix to the RI report. Respondents shall submit to the NYSDEC a draft of the RI report within 120 days of the commencement of the preparation of the report. Within 30 days of Respondents' receipt of the NYSDEC's final comments on the draft RI report, Respondents shall submit the final RI report to the NYSDEC.

E. Phase 4: Remedial Alternatives Analysis /Feasibility Study

Within 30 days of the NYSDEC's written approval of the final RI report, Respondents shall submit a work plan for the preparation of a remedial alternative analysis/feasibility study ("FS"), which shall include a schedule for the preparation and submission of an FS Report (the "Phase 4 Work Plan").

Within 30 days of the NYSDEC's written approval of the Phase 4 Work Plan, Respondents shall commence the FS.

The FS shall be conducted using NYSDEC/EPA guidance, including consideration of EPA's nine feasibility criteria. A remedy shall be proposed for selection in a draft FS report, which shall consider the ability of several proposed remedial alternatives to meet the remedial action objectives and EPA's nine feasibility criteria. The draft report shall be provided to the NYSDEC within 120 days of the Respondents' commencement of the preparation of the FS report. Within 30 days of Respondents' receipt of the NYSDEC's final comments on the draft FS report, Respondents shall submit the final FS report to the NYSDEC.