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NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION



DEPARTMENT USE ONLY

BROWNFIELD CLEANUP PROGRAM (BCP)

ECL ARTICLE 27 / TITLE 14

07/07			L	BCP SITE #:	
Section I. Requestor Information	on				
NAME					
ADDRESS					
CITY/TOWN		ZIP CODE	_		
PHONE	FAX		E-MAIL		
NAME OF REQUESTOR'S REPRESENTATIVE	E				
ADDRESS					
CITY/TOWN		ZIP CODE			
PHONE	FAX		E-MAIL		
NAME OF REQUESTOR'S CONSULTANT					
ADDRESS					
CITY/TOWN		ZIP CODE			
PHONE	FAX		E-MAIL		
NAME OF REQUESTOR'S ATTORNEY					
ADDRESS					
CITY/TOWN		ZIP CODE			
PHONE	FAX		E-MAIL		
THE REQUESTOR MUST CERTIFY THAT HE CHECKING ONE OF THE BOXES BELOW:	SHE IS EITHER A PARTIC	CIPANT OR VOLUNTEER IN A	ACCORDAN	NCE WITH ECL § 27-1	405 (1) BY
PARTICIPANT A requestor who either 1) was the owner of the site of hazardous waste or discharge of petroleum or responsible for the contamination, unless the liabil of ownership, operation of, or involvement with disposal of hazardous waste or discharge of petrole	VOLUNTEER A requestor other than a partici as a result of ownership, opera disposal of hazardous waste or NOTE: By checking this bo appropriate care with respect t reasonable steps to: i) stop any release; and iii) prevent or limit any previously released hazard	tition of or in discharge of x, the reque to the hazard continuing of thuman, envi	volvement with the site f petroleum. estor certifies that he/s lous waste found at the discharge; ii) prevent any	e subsequent to the she has exercised e facility by taking y threatened future	
Requestor Relationship to Property (check one): Previous Owner Current Owner Potential /Future Purchaser Other If requestor is not the site owner, requestor will have access to the property throughout the BCP project. Yes No					
(Note: proof of site access must be submitted for	non-owners)				

Section II. Property Information Summary Sheet		2 3 2 3 3 7 2 3 3 3 3 3 3 3 3 3 3 3 3 3			
PROPERTY NAME: Northern					
ADDRESS/LOCATION 47th Street and Simmon Avenue CITY/TOWN	Niagara Fa	lls	- ZIP CC	DDE 1430	4
MUNICIPALITY(IF MORE THAN ONE, LIST ALL): Niagara Falls					
COUNTY Niagara SITE SIZE (ACRES) 70 a	cres			
LATITUDE (degrees/minutes/seconds) 43 ° 5 ° 15.15 "	LONGITUE	E (degrees/mi	nutes/seconds)	79 · 0	' 21.2 "
HORIZONTAL COLLECTION METHOD: SURVEY ✓ GPS MAP	HORIZONTA	L REFERENC	E DATUM:	NAD 83 Stat	e Plane West
FOR EACH PARCEL, FILL OUT THE FOLLOWING TAX MAP INFORMATION (i Parcel Address					Acreage
137 47th Street		160.09	1	7.111	46.6
4721 Niagara Falls Boulevard		160.06	3	3	26.9
1. Do the property boundaries correspond to tax map metes and bound If no, please attach a metes and bounds description of the proper in the property is the required property map attached to the application? (applicat is the property part of a designated En-zone pursuant to Tax Law is For more information go to: http://www.nylovesbiz.com/BrownField If yes, identify area (name) Niagara County - City of Niagara	rty. ion will not b 21(b)(6)? d_Redevelopi	nent/default	·	p) 🔽	Yes No Yes No Yes No
List of Permits issued by the NYSDEC or USEPA Relating to the Prop Type Issuing Agency De SEE ATTACHED Initials of each Requestor:	osed Site (ty scription	ype here or a	attach inforn	nation)	

Section III. Current Site Owner	/Operator Information					
OWNER'S NAME (if different from requestor)						
ADDRESS						
CITY/TOWN	ZIP CODE					
PHONE	FAX	E-MAIL				
OPERATOR'S NAME (if different from requestor	r or owner)					
ADDRESS						
CITY/TOWN	ZIP CODE					
PHONE	FAX	E-MAIL				
Section IV. Requestor Eligibility	y Information (Please refer to ECL §	27-1407)				
If answering "yes" to any of the following	ng questions, please provide an explanation as a	n attachment.				
1. Are any enforcement actions pending	against the requestor regarding this site?		Yes	No		
2. Is the requestor subject to an existing	order relating to contamination at the site?		Yes	No		
3. Is the requestor subject to an outstand	ling claim by the Spill Fund for this site?		Yes	No		
4. Has the requestor been determined to	have violated any provision of ECL Article 277	?	Yes	No		
5. Has the requestor previously been de	•		Yes	No		
6. Has the requestor been found in a civ act involving contaminants?	il proceeding to have committed a negligent or i	intentionally tortious	Yes	No		
7. Has the requestor been convicted of a criminal offense that involves a violent felony, fraud, bribery, perjury, theft, or offense against public administration?			Yes	No		
8. Has the requestor knowingly falsified or concealed material facts or knowingly submitted or made use of a false statement in a matter before the Department?			Yes	No		
9. Is the requestor an individual or entity	y of the type set forth in ECL 27-1407.8(f) that ce to act could be the basis for denial of a BCP ap		Yes	No		
Section V. Property Eligibility Information (Please refer to ECL § 27-1405)						
Is the property listed on the National			Yes	No		
·	sistry of Inactive Hazardous Waste Disposal Site	es?	Yes	No		
If yes, please provide: Site # Class #						
3. Is the property subject to a permit under ECL Article 27, Title 9, other than an Interim Status facility? Yes No If yes, please provide: Permit type: EPA ID Number:						
Date permit issued: Permit expiration date: 4. Is the property subject to a cleanup order under navigation law Article 12 or ECL Article 17 Title 10? Yes No						
If yes, please provide: Order # 5. Is the property subject to a state or federal enforcement action related to hazardous waste or petroleum? Yes No If yes, please provide explanation as an attachment.						
	an attachment.					
Section VI. Project Description						
What stage is the project starting at? investigation remediation						
Please attach a description of the project	Please attach a description of the project which includes the following components:					
 Purpose and scope of the project Estimated project schedule 						

Section VII. Property's Environmental History

To the extent that existing information/studies/reports are available to the requestor, please attach the following:

1. Environmental Reports

A phase I environmental site assessment report prepared in accordance with ASTM E 1527 (American Society for Testing and Materials: Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process), and all environmental reports related to contaminants on or emanating from the site.

If a final investigation	report is included	d, indicate whether it me	eets the requirements of	ECL Article 27-1415	(2): Yes No
2. Sampling Data: Indicate known contaminants and the media which are known to have been affected:					
Contaminant Category	Soil	Groundwater	Surface Water	Sediment	Soil Gas
Petroleum					
Chlorinated Solvents					
Other VOCs					
SVOCs					
Metals					
Pesticides					
PCBs					
Other*					
*Please describe:					•
3. Suspected Contamina	ants: Indicate su	spected contaminants	and the media which n	nay have been affecte	ed:
Contaminant Category	Soil	Groundwater	Surface Water	Sediment	Soil Gas
Petroleum					
Chlorinated Solvents					
Other VOCs					
SVOCs					
Metals					
Pesticides					
PCBs					
Other*					
*Please describe:					
4. INDICATE KNOWN OR S	USPECTED SOUR	CES OF CONTAMINANTS	S:		
Above Ground Pipeline of Routine Industrial Operati Adjacent Property Coal Gas Manufacture Other:	ons Du	agoons or Ponds amping or Burial of Wastes eepage Pit or Dry Well dustrial Accident	Underground Pipeline of Septic tank/lateral field Foundry Sand Unknown	_	oill or Discharge Storage Containers ating
5. INDICATE PAST LAND U	ISES:				
Coal Gas Manufacturing Pipeline Other:	Manufacturin Service Statio		op Dry Cleaner Tannery	Salvage Yard Electroplating	Bulk Plant Unknown
6. Owners					

A list of previous owners with names, last known addresses and telephone numbers (describe requestor's relationship, if any, to each previous owner listed. If no relationship, put "none").

7. Operators

A list of previous operators with names, last known addresses and telephone number (describe requestor's relationship, if any, to each previous operator listed. If no relationship, put "none").

Section VIII. Contact List Information

Please attach, at a minimum, the names and addresses of the following:

- 1. The chief executive officer and planning board/dept. chair of each county, city, town and village in which the property is located.
- 2. Residents, owners, and occupants of the property and properties adjacent to the property.
- 3. Local news media from which the community typically obtains information.
- 4. The public water supplier which services the area in which the property is located.
- 5. Any person who has requested to be placed on the contact list.
- 6. The administrator of any school or day care facility located on or near the property.
- 7. The location of a document repository for the project (e.g., local library). In addition, attach a copy of a letter sent to the repository acknowledging that it agrees to act as the document repository for the property.

Section IX. L	and Use Factor	rs (Please refe	r to ECL § 27	-1415(3))				
Current Use:	Residential	Commercial	Industrial	Vacant	Recreational	(check all	that apply)	
Intended Use:	Unrestricted	Residential	Commercial	Industrial	(check all that	apply)		
	appropriate box an omprehensive zonii					de a copy of	the local z	oning No
1. Do current his re: discussion of	torical and/or recer area land uses)	t development pa	atterns support the	e proposed us	e? (See #12 bel	ow		
2. Is the propose	d use consistent wit	h applicable zoni	ing laws/maps?					
	d use consistent wit					erfront		
4. Are there any	Environmental Just	ice Concerns? (S	ee §27-1415(3)(p)).				
5. Are there any	federal or state land	l use designations	s relating to this s	ite?				
6. Do the popula	6. Do the population growth patterns and projections support the proposed use?							
7. Is the property accessible to existing infrastructure?								
8. Are there important cultural resources, including federal or state historic or heritage sites or Native American religious sites within ½ mile?								
9. Are there important federal, state or local natural resources, including waterways, wildlife refuges, wetlands, or critical habitats of endangered or threatened species within ½ mile?								
10. Are there floodplains within ½ mile?								
11. Are there any institutional controls currently applicable to the property?								
	attachment the prox recreational areas.	imity to real prop	perty currently us	ed for residen	tial use, and to	urban, comm	nercial, indu	ıstrial,
13. Describe on attachment the potential vulnerability of groundwater to contamination that might migrate from the property, including proximity to wellhead protection and groundwater recharge areas.								
14. Describe on attachment the geography and geology of the site.								

(By requ	equestor who is an individual)	
I hereby belief. I Penal La	by affirm that information provided on this form and its attachments is true. I am aware that any false statement made herein is punishable as a Class Law.	and complete to the best of my knowledge and A misdemeanor pursuant to section 210.45 of the
Date:	Signature: Print 1	Name:
I hereby applicat form and herein is	by affirm that I am (title) of (title) of (entity); ration; that this application was prepared by me or under my supervision and and its attachments is true and complete to the best of my knowledge and be a is punishable as a Class A misdemeanor best of my knowledge and be a spunishable as a Class A misdemeanor best of my knowledge and be a spunishable as a Class A misdemeanor best of my knowledge and be a spunishable as a Class A misdemeanor best of my knowledge and be a spunishable as a Class A misdemeanor best of my knowledge and be a spunishable as a Class A misdemeanor best of my knowledge and be a spunishable as a Class A misdemeanor best of my knowledge and be a spunishable as a Class A misdemeanor best of my knowledge and be a spunishable as a Class A misdemeanor best of my knowledge and be a spunishable as a Class A misdemeanor best of my knowledge and be a spunishable as a Class A misdemeanor best of my knowledge and be a spunishable as a Class A misdemeanor best of my knowledge and be a spunishable as a Class A misdemeanor best of my knowledge and be a spunishable as a Class A misdemeanor best of my knowledge and be a spunishable as a Class A misdemeanor best of my knowledge and be a spunishable as a Class A misdemeanor best of my knowledge and be a spunishable as a Class A misdemeanor best of my knowledge and bes	that I am authorized by that entity to make this direction; and that information provided on this elief. I am aware that any false statement made Penal Law.
	ITTAL INFORMATION: (3) complete copies are required.	
• 7	Two (2) copies, one paper copy with original signatures and one electron or diskette, must be sent to:	ic copy in Portable Document Format (PDF) on a CD
I I	Chief, Site Control Section New York State Department of Environmental Conservation Division of Environmental Remediation 625 Broadway Albany, NY 12233-7020	
• (One (1) paper copy must be sent to the DEC regional contact in the regio located. Please check our website for the address of our regional offices:	nal office covering the county in which the site is http://www.dec.ny.gov/about/776.html
	PARTMENT USE ONLY TE T&A CODE: LEAD OFFICE:	



Narrative of BCP Application

Section II: Property Information

Property Description Narrative

The subject property is an approximate 70-acre parcel located south of 47th Street near the intersection of Simsons Avenue in Niagara Falls, New York (the "Site). A survey map is included as Figure 7. The Site is currently vacant, with most of the Site buildings having been demolished. The Site is generally bounded to the north by Niagara Falls Boulevard; to the east by a railroad right-of-way; to the south by Covanta; and American Refuel and a railroad right-of-way; and to the west by Niacet Corporation, 47th Street, and portions of the former Station facility. The Site is currently located in a commercial and heavy industrial area that has been developed for approximately 100 years.

Based on available information, it appears that the Site was initially developed by Union Carbide in the early 1900s. A review of the City of Niagara Falls real property records indicate that Union Carbide Corporation, Metal Division, Union Carbide-Linde Division was the business operator through 1975. UMETCO Minerals Corp. is listed as the business operator of the Site in 1980 and 1985. U.S. Vanadium is listed as the businesses owner of the Site from 1985 through 2005. The Site is currently owned by Praxair, Inc.

Summary of Environmental History & Issues

The Site has been listed as a Small Quantity Generator ("SQG") of hazardous waste; a petroleum bulk storage (PBS) facility; a chemical bulk storage ("CBS") facility; and is listed as a Comprehensive Environmental Response, Compensation, and Liability Information System ("CERCLIS") No Further Remedial Action Planned ("NFRAP") Site.

Shaw Environmental, Inc. ("Shaw") conducted a Phase I environmental site assessment ("ESA") of the Site for its current owner, Praxair, Inc. Attached as Exhibit A is a copy of the Phase I report. The Phase I ESA report indicated that the Site is currently vacant and recent demolition activities have been conducted at the Site. During the Phase I site visit, the buildings had already been demolished, with the exception of two switch gear buildings and a truck and train repair shop (also known as the roundhouse). The following recognized environmental conditions (RECs) were acknowledged in the Phase I ESA completed by Shaw:

- "Former Underground Storage Tanks (USTs): The site formerly had USTs associated with the locomotive/truck repair building. These tanks were removed along with contaminated soil; however, the location adjacent to the building may have prevented complete excavation. Wells on the Covanta property adjacent to this area show signs of petroleum impact; however, it is not known if this impact is associated with the Site." This area is shown on Figure 2.
- "Aboveground Storage Tanks (ASTs): There were numerous ASTs located on the Site, most of which were associated with acetylene production and located near the southeast corner of 47th Street and Simmons Avenue. Tanks were also associated with the wastewater pre-treatment system in the northeast corner of the Site. No known impact is associated with these ASTs." The known AST locations are shown on Figure 2.
- "Historical Bulk Material Storage: Historical maps and aerial photographs show numerous bulk storage areas, including the northwest portion of the Site, the gantry crane area in the

central portion of the Site, and the area along the south side of Simmons Avenue. The nature of these materials is not known but is suspected to be both raw materials and stored product. Some of these materials were indicated to be ore piles on the historical maps. Residual impacts associated with these piles are not documented; however, fragments of raw materials and flux were noted during the site visit." One documented location of bulk material storage is illustrated on Figure 2; however, the aerial photograph for Figure 2 and Figure 3 illustrate site-wide discolored and disturbed soils.

- "Former Chrome Crusher: A chrome crusher is shown on Site plans and is located east of Building No. 77. Greenish- and yellowish-colored material was noted in this general area during the site visit." The chrome crushing area is illustrated on Figure 2. Figure 3 also clearly shows the significant yellow discolored surface soils in this area.
- "Fill Material: Most of the Site is suspected to be covered with fill material. This material is suspected to be up to 10 feet thick. Based on limited sampling and analytical results for the Site and adjacent properties, these materials may contain metals exceeding regulatory guidance numbers." As indicated above, the aerial photograph for Figure 2 and Figure 3 illustrate site-wide discolored and disturbed soils, which could be associated with fill materials.
- "Settling Basins: Several settling basins are shown on historic maps and aerial photographs of the Site. They included two basins located in the northeast corner of the Site, two basins located in the central portion of the Site, and a concrete settling basin located south of Building No. 77." The known settling basins are illustrated on Figure 2.
- "Underground Tunnel and Stream Channel: The Falls Street Tunnel and Pikes Creek traverse the Site. Falls Creek Tunnel is a sewer that acts as a groundwater drain and potentially a conduit for waste to migrate onto the Site from nearby industrial sites. Pikes Creek was routed through a conduit form the northeast corner of the Site through the Niacet property. This is a potential migration route from properties to the north, including the former Graphite Carbide and Modern Landfill. Based on information from the Niacet property, fill materials are also thickest along the former stream channel."
- "Potential Impacts from Adjacent Properties: Information pertaining to the adjacent properties indicates that soil and groundwater are likely impacted from adjacent property uses. Elevated mercury was identified in background samples on the Site collected for the Niacet property investigation, and groundwater adjacent to the southern boundary is potentially impacted based on monitoring wells installed to investigate and monitor the Occidental Chemical site."
- "Potential Radioactive Material Use: Informal and unsubstantiated information was provided during the public meetings for an adjacent property and from City of Niagara Falls employees that the Site may have been used during World War II for radioactive material processing. Shaw did not identify a credible source for these rumors but did find several internet sources suggesting potential involvement. Shaw does not generally feel that internet articles are credible sources of information. The Requestor's consultant recently obtained an Artvoice article from 2006 (attached) which indicated that according to the Department of Energy, in the seven years between 1965 and 1972, Union Carbide companies at the Royal Avenue and 47th Street sites generated 505 tons of radioactive waste, including 9,212 pounds of uranium oxide and 1,293 pounds of thorium oxide. This waste was reportedly buried on site in 55-gallon drums, piled in a ditch 20 feet deep and covered with four to five feet of soil. The exact location of the disposal site has not been determined. Evidence that the waste has been recovered is absent. It is uncertain whether the area referred to is on the Royal Ave Union Carbide properties, or the 47th Street Praxair parcel."

Historic maps that provide additional information on the past use of the Site are included as Figures 4, 5, 8 and 9.

Consistency with Land Use Plans

The Site is located within the 'Buffalo Avenue Corridor' of Niagara Falls. The City of Niagara Falls' Strategic Master Plan (the "Master Plan") indicates that "given the likely extent of contamination of these lands [referring to industrial lands within the Buffalo Avenue Corridor and other corridors], reuse for non-industrial activities is not expected in the short to medium-term." Attached as Exhibit B is a copy of the Master Plan. The Master Plan goes on to state that the "Master Plan recommends positioning these lands for long-term renewal by undertaking the studies necessary to understand the type and extent of contamination, long- term priority remediation areas, the types of remediation techniques or solutions which are available, possible adaptive reuse of abandoned buildings given knowledge concerning site contaminants and feasible potential uses and associated order of magnitude cost estimates for priority site cleanup." A copy of the Master Plan is attached.

The Site is also located within the current limits of the proposed Buffalo Avenue Industrial Corridor Brownfield Opportunity Area (BOA) being conducted by the City of Niagara Falls (Pre-Nomination Phase of the BOA Program). Although the Pre-Nomination Study has not been completed to date, a Draft Site Summary Report is attached, which provides preliminary information on the study.

Based on the Master Plan, the RECs identified in the Phase I ESA, the Site's location in an En-Zone, as well as the site's location in a New York State Empire Zone, the Site is an ideal candidate for the Requestor's proposed Ethanol Manufacturing facility (the "Project" – see below for additional details). In fact, the Requestor is seriously considering making this investment on this Site because the proposed Project is consistent with the Master Plan, because the Site's existing infrastructure facilitates use of this site for the Project, and because the Site is also located within an industrial corridor. Additionally, the Empire Zone and En-Zone designation and related tax incentives, along with the liability relief provided by the NY Brownfield Cleanup Program, provide the necessary incentives further encouraging the Request to contemplate making such an investment on this Site in Niagara Falls.

List of Permits & Regulatory ID Numbers

The following permits or regulatory identification numbers have been listed for the previous operators at the Site.

- USEPA Generator Number NYD000692228 (this ID number appears to be associated with Union Carbide Corporation, Linde Division and L-TEC Company) and NYD094171154 (Union Carbide Corporation)
- Certificates to Operate Air Contaminant Sources 291100-0359, 0956A, 956B, 00955, 00962, 00963, 00964, 00965, 00966, 00967, 0968, 01001, 01201, 01202, 01203, 01204, and 09001 (Union Carbide Corporation).
- SPDES Permit No. NY0000060 (Union Carbide Corporation).
- CERCLIS NFRAP Site No. NYD980532410.
- NYSDEC Spill #8601133 (UMETCO), #8601641 (Stratcor, Inc.), and #0175452 (Stratcor, Inc.)
- Chemical Bulk Storage #9-000200 (U.S. Vanadium Corporation).
- Petroleum Bulk Storage #9-037834 (U.S. Vanadium Corporation).

Section VI: Project Description

There is a directive by state and federal governments to increase the production of alternative energy and to reduce the nation's dependence on foreign petroleum products. Fuel ethanol (an alternative to gasoline) is currently made from expensive corn and sugar plants which have limited production available for fuels. Northern Ethanol LLC (the "Requestor" or "Company") Niagara Falls facility will produce approximately 110 million gallons of undenatured ethanol per year consuming in the process, approximately 40.5 million bushels of corn grain (the "Project"). The Requestor believes this location will enable it to become one of the leading ethanol producers in the Eastern U.S. marketplace, which currently has no regional supplier. The Project will result in the creation of approximately 105 new jobs, and the facility will operate 24 hours per day. Under TSSA regulations, the plant will be designated as a first class facility and as such, will require first class stationary engineer certification. The plant maintenance will be carried out by on-site certified technicians. Plant chemists and technical assistances will direct and oversee all facility operations and processes. The facility will be operated in accordance with standard operating procedures partly developed by the Requestor's engineering and operations departments. Process controls will be incorporated into the facility for efficiency and safety purposes.

The Company expects to invest approximately \$244,000,000 (land acquisition, building and site improvements, and production fixtures and equipment and related infrastructure) to construct the Ethanol facility. Construction is expected to begin during the 4th quarter of 2008. As stated previously, approximately 105 new jobs will be created upon start-up of operations. These new positions will be filled by engineers, scientist, chemists, managers as well as trucking, security, and facility maintenance staff. It is anticipated that wages, including benefits, will range between \$45,000 up to and beyond \$150,000 for senior technical and scientific staff. There will be indirect –value added- job creation related to new corn production/farming opportunities (most of which is anticipated to occur in Niagara County specifically, and Western New York, generally) and corn and ethanol and ethanol by-product shipping and transportation opportunities. The financial benefit of such employment growth related to the Company's 100 new jobs is evidenced by the fact that over \$7mm of new payroll will be injected into Niagara Falls annually upon start-up of Project operations.

Conceptual Description of Remedial Investigation Work

The initial step of the BCP project is to conduct a remedial investigation of the Site in order to evaluate areas of remedial concern. Based on the nature of the historical use of the Site and the RECs identified in the Phase I ESA, the following work is envisioned for a Remedial Investigation at the BCP Site:

- Geophysical Survey (electromagnetic [EM] and/or ground penetrating radar [GPR]) to evaluate for buried fill materials, drums, underground storage tanks, etc.
- Test Pitting Study to evaluate areas of magnetic anomalies identified as part of the Geophysical Survey.
- Test Boring Study/Monitoring Wells To further define the extent of impacts, it is anticipated that an initial round of approximately 50 to 60 test borings will be advanced using a rotary drill rig and/or geoprobe rig equipment. Also, at least 10 to 15 groundwater monitoring wells will be installed into the overburden and potentially bedrock to evaluate any source areas of impacts.
- Exposure Assessment
- Quality Assurance/Quality Control program

A detailed scope of work, including the actual number and areas of testing locations will be developed as part of the Remedial Investigation Work Plan. However, for conceptual purposes, Figure 2A indicates potential testing locations.

Based on the results of the RI, Interim Remedial Measures and/or a Site-Wide Remedial Work Plan will be developed. Although the type and extent of remediation will vary depending on the results of the RI, it is envisioned that at a minimum the following work may be required:

- Removal and disposal of source area impacts (e.g., petroleum impacts, chromium impacted soils, etc.)
- Remediation of groundwater impacts, if such impacts are related to on-site source areas and exceed remedial action objectives.
- Proper on-site management (e.g., capping with an impervious surface or clean cover material) or off-site disposal of fill materials including suspected ash, cinders and slag fill.

The actual remedial work will be based on the results of the RI and an Alternatives Analysis Report. It should also be noted that since the construction of the facility is anticipated to begin in the fourth quarter of 2008, the remediation and redevelopment work are anticipated to be conducted simultaneously.

Section VII: Environmental History

Item 2: Sampling Data (known contamination)

The Phase I ESA indicated that a previous limited investigation of the property identified poly aromatic hydrocarbons (PAHs) at concentrations above USEPA Risk-based screening levels. In addition, select metals were also detected in soil and groundwater at elevated concentrations. While the Phase I ESA noted that a remedial program was implemented for 'Area 1', the extent of the remedial work and results of confirmatory soil samples (if any were collected) were not included. Furthermore, the investigation work completed did not appear to be a complete site characterization and only evaluated limited areas at the Site.

Item 3: Suspected Contaminants

The RECs identified in the Phase I ESA identified numerous potential impacts to soil, groundwater and soil gas at the Site. Specifically, the following areas of suspected contaminants and the source of these suspected contaminants are shown below:

Suspected Contaminant	Area of Concern
Petroleum Products	The site was identified as a petroleum bulk storage facility
(including VOCs and SVOCs)	and there have been documented releases of petroleum
	products.
Chlorinated Solvents	Maintenance shops and the long term use of the site for
	manufacturing indicate a potential for impacts from
	chlorinated solvents. In addition, neighboring properties
	have documented impacts to groundwater from chlorinated
	solvents.
Metals	The 'chrome crusher' and yellow stained area identified in
	the Phase I ESA and visible in aerial photographs indicated
	a real potential for chromium contamination in the soil and
	groundwater at the site. In addition, large quantities of fill
	materials, including slag, have been noted to exist at the
	Site. Slag and other suspect fill materials typically contain
	elevated concentrations of metals and/or SVOCs.
Other	Based on the reported burying of drums with uranium and
(Uranium Oxide & Thorium Oxide)	thorium oxide, there is a potential for impacts to soil and/or
	groundwater.

Item 4: Known or Suspected Sources of Contaminants

- Above Ground Pipeline or Tank The PBS and CBS information identified numerous tanks at the Site.
- Routine Industrial Operations The Phase I ESA identified significant industrial operations at the site which include (but not limited to): maintenance buildings, locomotive house with car repair area, numerous manufacturing buildings, furnace buildings, wastewater treatment building, pump houses, etc.
- Adjacent Properties The Phase I ESA indicated that contamination has been identified at the following adjacent properties:

- South: Elevated concentrations of metals were identified during a limited soil boring study in 1994 at Ref-Fuel (now Covanta). In addition, an Occidental Chemical Corporation site to the south has been documented to have impacted the proposed BCP with chlorinated compounds in groundwater.
- O West: Elemental mercury impacts were identified in 1998 during a construction project at Niacet Corporation and subsequent studies identified numerous VOCs, SVOCs, PCBs and pesticides. In addition, a Record of Decision (ROD) for the Frontier Chemical site indicates widespread VOC impacts and potential dense non-aqueous phase liquid (DNAPL).
- o East: A mercury investigation was conducted in 1995 at the Goodyear site. It was reported that non-aqueous phase liquid was identified on the Goodyear site.
- Lagoons or Ponds Several 'settling' ponds/basins were identified in the Phase I ESA based on reviewing aerial photographs. Settling ponds associated with industrial activities are typical conduits for impacts to soil and groundwater.
- Dumping or Burial of Wastes It has been reported that drums were buried at the site with uranium and thorium oxide.
- Underground Pipeline or Tank Several USTs have been registered for the Site.
- Surface Spill or Discharge Several NYSDEC Spills exist for the Site. Two spills were associated with the release of gasoline at the Site in 1986. While these spills were closed and noted to 'meet standards' at that time, there does not appear to be sampling data that would allow a comparison to today's standards. Furthermore, in 1986 the NYSDEC did not have soil cleanup objectives in-place for comparison.
- Drums or Storage Containers The Phase I ESA and the historical maps for the Site identify numerous areas where materials storage or tanks were located.

The currently known potential source areas are shown on Figure 2.

Item 5: Past Land Use

The Phase I ESA indicated that the Site was initially developed in 1900 and has been used for heavy industrial purposes since that time. Use prior to 1899 was not documented.

Item 6: List of Owners (and relationship to Requests)

A) Owner: Union Carbide Corp. 1900-1980 Current Address: P.O. Box 4393

Houston, Texas 77210

(713) 978-2016

Relationship to Requestor: None

B) Currently owned by Praxair, Inc.

Current Address: 39 Old Ridgebury Road

Danbury, Connecticut 06810

(203) 837-2121

Relationship to Requestor: None

Item 7: List of operators (and relationship with Requester)

A) Operator: Union Carbide Corp. 1900-1980

Contact Information: Union Carbide Corporation,

A Subsidiary of The Dow Chemical Company

P.O. Box 4393

Houston, Texas 77210

(713) 978-2016

Relationship to Requestor: None

B) Operator: UMETO Minerals Corp. 1980-1985

Contact Information: Unknown Relationship to Requestor: None

C) Operator: U.S. Vanadium Corp. 1985-2005

Contact Information: Unknown Relationship to Requestor: None

D) Operator: Stratcor Inc. 2005-2006

Contact Information: Unknown Relationship to Requestor: None

E) Operator: Praxair, Inc. 2006-2007

Contact Information: 39 Old Ridgebury Road

Danbury, Connecticut 06810

(203) 837-2121

Relationship to Requestor: None

F) Operator: ESAB

Contact Information: Unknown Relationship to Requestor: None

G) Operator: L-Tech

Contact Information: Unknown Relationship to Requestor: None

Section VIII: Contact List Information

1) Municipal Contacts

Name	Department	Address
Robert Anderson	City Council	City Hall - Room 202
Charles Walker		745 Main Street
Steve Fournier		Niagara Falls, NY, 14302
Chris Robins		
Samuel Fruscione		
Paul A. Dyster	Mayor	City Hall
		745 Main Street
		Niagara Falls, NY, 14302
Thomas Desantis		City Hall - Room 306
	Department of	745 Main Street
	Community Development	Niagara Falls, NY, 14302
Alan Nussbaum		City Hall - Room 306
	Department of	745 Main Street
	Community Development	Niagara Falls, NY, 14302

2) Property Owner and Adjacent Properties

• Current Owner: Praxair, Inc.,

39 Old Ridgebury Road Danbury, CT 06810 (203) 837-2121

• Adjacent Property Owners:

Direction	Property	Owner Contact Information
	4790 Niagara Falls Blvd.	Niagara Recycling, Inc. 5600 Niagara Falls Blvd. Niagara Falls, NY 14304
North	4710 & 4750 Niagara Falls Blvd.	B&T Developers, LLC 730 Main Street Niagara Falls, NY 14301
	4702 Niagara Falls Blvd.	Niagara Mohawk Power Corporation 300 Erie Blvd. Syracuse, NY 13202

Direction	Property	Owner Contact Information
	4800 Wilton Avenue	Apollo Steel
		4800 Wilton Avenue
		Niagara Falls, NY 14304
	4800 Charles Avenue	Mark E. Tompkins
		2966 Porter Center Road
		Youngstown, NY 14174
	5500 Goodyear Drive	The Goodyear Tire & Rubber Company
		5500 Goodyear Drive
East		Niagara Falls, NY 14304
	550 55 th Street	The Goodyear Tire & Rubber Company
		5500 Goodyear Drive
		Niagara Falls, NY 14304
	5380 Frontier Ave	Owner: Niagara County IDA
		Tenant/Operator: Niagara Generation, LLC
		PO Box 19001
		Green Bay, WI 54307
	115 47 th Street, 125 47 th Street,	Owner: Niagara County IDA
	127 47 th Street, 129 47 th Street, 100 Energy Blvd., and	Apparent Tenant: Covanta Niagara, L.P.
South	111 47 th Street	100 Energy Boulevard at 56 th Street
		Niagara Falls, NY 14304
	4503 & 4631 Royal Avenue	Praxair, Inc.,
	Ž	39 Old Ridgebury Road
		Danbury, CT 06810
	4626 Royal Avenue	5335 River Road, Inc.
		4626 Royal Avenue
		Niagara Falls, NY 14303
West	401 47 th Street	Verost Partnership
		401 47 th Street
		Niagara Falls NY, 14304
	400 47 th Street	Niacet Corporation
		400 – 47 th Street Niagara Falls, NY 14304
		111115111 17307

3) Local News Media

Niagara Gazette 310 Niagara Street Niagara Falls, NY 14304 716-282-2311 4) Public Water Supplier

Niagara Falls Water Board 5815 Buffalo Avenue Niagara Falls, New York 14304 716-283-9770

- 5) Currently, no persons have requested to be placed on the Contact List
- 6) There are no schools or day care facilities known to be on or near the property.
- 7) Document Repository The LaSalle Branch of the Niagara Falls Public Library is the proposed document repository for this project.

8728 Buffalo Avenue Niagara Falls, NY 14304 Voice: (716) 283-8309 Fax: (716) 283-8309

www.niagarafallspubliclib.org

Section IX: Land Use Factors

Item 4: Environmental Justice Concerns

The Buffalo Avenue Industrial Corridor BOA is conducting a public participation program, which has not identified any environmental justice concerns to date.

Item 5: Federal or State Land Use Designations

The Site is located within the NYS Environmental Zone, (Census Tract 217), refer to the attached map.

Item 8: Cultural Resources

Three (3) waterfowl winter concentration areas exist in the Niagara River according to the New York State Heritage Program. None of these areas are within ½ mile from the proposed Site. There are no other state or federal listed sensitive species or habitats in the vicinity of the Site.

According to the New York State Office of Parks, Recreation, and Historic Preservation the nearest historic property to the Site is the Adams Power Plant site, a Federal Register Historic Site, 90NR01966. The Adams Power Plant site is located approximately 1.7 miles to the southwest of the properties. Although there is an archeologically sensitive area that is slightly within the ½ mile radius from the Site, there are no identified sites associated with it and the properties are not located within the sensitive area. These areas are illustrated on Figure 11.

Item 9: Natural Resources

According to state wetlands map layers, there are no state regulated wetlands located within ½ mile of the Site. The nearest state regulated wetland is located approximately 0.8 miles to the east, across I-190. According to federal wetlands map layers, there are five federal regulated wetlands within ½ mile of the Site. The nearest is labeled PEM1CDs and is located 0.16 miles northeast of the Site. Wetlands PEM 51C, PSS1/EM1A, and PEM1Ad are located between 0.28 and 0.47 miles from the Site to the northwest. Wetland PEM 5/1cd is located approximately 0.48 miles to the east/northeast. The northern bank of the Niagara River is located 0.42 miles from the properties at its nearest point. These natural resources are illustrated on Figure 10.

Item 10: Floodplains

A portion of the Site is located within the 500-year floodplain; however, the 100-floodplain is approximately 50 ft. to the west. The floodplain areas are illustrated on Figure 10.

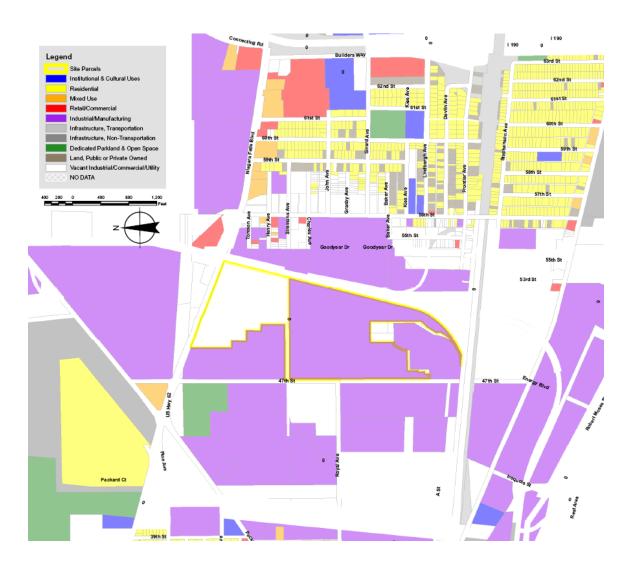
Item 11: Institutional Controls

There are no known State or Federal institutional controls applicable to the Site based on a searches performed the USEPA wesbsite (last updated January 25, 2007 and on the NYSDEC website.

- USEPA http://www.epa.gov/enviro/html/rcris/rcris_query_java.html
- NYSDEC http://www.dec.ny.gov/cfmx/extapps/derfoil/index.cfm?pageid=3

Item 12: Land use in Proximity

Land use was determined from the City of Niagara Falls real property database. The nearest residential property to the Site is located approximately 1,120 ft to the southeast, at 518 56th Street. There is also an apartment complex along Pine Ave, approximately 1,300 ft to the northwest. The Site is located within an urban area (the City of Niagara Falls) and an industrial area. Land use within a ½-mile to the north, south, and west of the site, and ¼ mile east of the Site, is predominantly heavy industrial. The nearest sizeable commercial area is located approximately 3,000-ft to the east, and consists of a Home Depot retail store and a movie theatre located on Builder's Way, off Niagara Falls Boulevard. The nearest recreation area is a little league baseball field, located 500 ft to the west/northwest. Hyde Park, one of the largest public parks in Niagara Falls, is located 1,000-ft to the northwest.



Item 13: Vulnerability of Groundwater

Groundwater in the City of Niagara Falls and the Town of Niagara (located approximately 1,000 ft to the northeast of the property) is not used for drinking water purposes. There is extensive groundwater contamination documented at many properties in the vicinity of the Site, and leaching into the Falls Street Tunnel, located immediately west of the Site along Royal Avenue. In the absence of specific site data, it can nonetheless be assumed that groundwater at the site is similarly vulnerable to contamination. It is also reasonable to assume that site groundwater is contaminated by historical activities at the Site or adjacent properties.

Item 14: Geography and Geology

The Site is relatively flat and ranges from approximately 565 to 575 feet above mean sea level. The Site is located in an area that is underlain by the Silurian-age Lockport Formation, which is a gray dolomite. Based on information from adjacent properties, the Site is likely covered with between 2 and 10 feet of fill material underlain by clayey, glacial till and lacustrine deposits. The property is identified as Urban Land on the soil survey, which consists of soils reworked or regraded by man.

The nearest surface water is Pikes Creek and it is northeast of the Site. At one time, Pikes Creek traversed the northern portion of the Site; however, it was later rerouted across the Site via an underground conduit. It has been reported that Pikes Creek is no longer on the Site. The Niagara River is located approximately one-half mile to the south and Gill Creek is located approximately one-half mile east of the proposed BCP. Currently, surface waters at the Site are promoted to storm sewers or infiltrate into the ground surface. The Falls Street Sewer Tunnel appears to be located on the western portion of the Site near Royal Avenue and another sewer tunnel runs north-south beneath 47th Street. These sewer tunnels are unlined bedrock tunnels and it is anticipated that these tunnels will influence shallow groundwater in the area.

Y:\Northern Ethanol, Inc\208047\Clerical\Word\Rpt\Attachment to Brownfield Cleanup Project.DOC