Spring 2006

Sadat Associates, Inc. • Trenton, NJ

Founded 1986

Update to Clients

Vol. 20 No. 2

What is 'Due Diligence'?

SAI can advise Clients on the most suitable forms of due diligence for their needs. The following summarizes these efforts.

ASTM E1527 or "Phase I"

- File review to assess site and area history; site visit to identify areas of environmental concern
- Usually required by lenders
- No site investigation/assessment of site-specific remedial costs; not specific to potential reuse goals
- Not submitted to NJDEP to secure NFA

CERCLA "All Appropriate Inquiry" (effective 11/2006)

- Expansion of Phase I, includes file review/site visit to identify recognized environmental conditions
- Must be undertaken to assess innocent purchaser protection
- Same limitation as Phase I, with new guidelines requiring licensed/professional review

Preliminary Assessment — NJDEP

- File review/site visit conforming to NJDEP Tech Rules to identify "Areas of Concern" on site
- Necessary for NJDEP involvement/oversight/NFA determination; can assess site-specific environmental impacts and suitability of further site investigation
- Focused only on subject property with no site investigation, no assessment of potential remedial costs; no review of neighboring properties/offsite potential impacts

SAI Strategic Due Diligence

- Focused on specific Client needs; file review supported by site efforts; regulatory interactions as needed
- Can provide plan to achieve project development goals, including conceptual cost opinion for remedial options
- May need to be supplemented with PA or Phase I; provides general information for go/no-go decisions related to environmental issues

Strategic Due Diligence helps evaluate project feasibility

What do you really need from a due diligence investigation?

The location is great, the price is fair and the market is hot. Sounds like a great deal. And it just might be. But in New Jersey, Smart Growth restrictions to development have pushed the market towards sites with a history of use—and often misuse.

As property owners, developers and municipalities get more involved in the process of brownfields redevelopment, due diligence efforts that recognize past history and current conditions of a site early in the project process become even more critical. Brownfield sites by their very nature provide challenges that uncontaminated, virgin sites do not.

SAI has for several years provided a type of targeted strategic due diligence for redevelopment projects that allows for identification of potential liability, remedial options and costs early in the process to facilitate a go-no go decision. Not intended to take the place of traditional due diligence efforts to satisfy requirements of a regulatory agency and/or financial institution, the strategic analysis identifies early the remedial options to complete a given project. If plans need to be modified to address site conditions and regulatory constraints, knowing these needs early facilitates design.

An example of just how valuable this strategic due diligence is can be seen with a recent investigation undertaken by SAI personnel. The Client had the opportunity to develop a parcel of land in a prime location. The purchase price was reasonable and the market study clearly indicated the potential for success with the specific redevelopment plan. The only "problem" was that the land was an abandoned landfill. SAI scientists and engineers conducted a

Targeted investigations provide enough information to help make decisions before starting a full scale Remedial Investigation as mandated by the State.

series of targeted investigations and proposed a rather unusual but clearly sound management plan for the site. Based on certain cost assumptions, this project was determined to be a reasonable investment and the Client proceeded with the negotiations, equipped with sufficient information to assist in setting a cost.

The information critical to that decision process would not have been a result of "traditional" due diligence - files review, preliminary site visit and other components of the Phase I/Preliminary Assessment effort. While this traditional information is necessary and a requirement of the NJDEP and/or

See **Services** *on page 2*

Inside

Services for strategic due diligence

Continued from page 1

financial institutions, the information critical to this decision included additional geotechnical investigations and meetings and discussions with regulators. Together, this information, with SAI assessment of engineering costs and regulatory time frames, was part of what was needed by the Client to develop the proforma for the project, and the decision to move forward.

While working to develop sound remedial strategies that allow our Clients to reach their redevelopment goals, strategic due diligence can also identify very early in a process when a site is unsuitable and/or the "deal" inappropriate. SAI recently evaluated for a Client a site that contained levels of PCBs that could impact and possibly deter redevelopment. Although we were confident that there were ways to make the site buildable, the asking price for the land was unrealistic. Armed with this knowledge our Client was able to attempt renegotiation of the selling price.

Each case, each site is different. SAI is proud of the efforts it has undertaken on behalf of its Clients to incorporate standard procedures for due diligence activities with in-depth knowledge of regulations, remedial options and engineering controls to assist our Clients in critical decisions related to property acquisition and redevelopment.

Brick gas tank structure dates from late 1800s

SAI provides MGP remediation oversight in Port Chester, NY

SAI was retained by remediation consultant JM Sorge, Inc. (JMS) to provide engineering design services and remediation oversight at the site of a former manufactured gas plant in Port Chester, NY. The plant had operated from about 1860 to 1902. A subsurface investigation performed by JMS found two gas holders, a tar well and a meter room at the site. A remedial investigation showed the gas holders were backfilled with waste material. JMS' site remediation plan consisted of excavation/disposal of contaminated soil from around and inside the holders and other structures, followed by backfilling, grading and site preparation for construction of a commercial building.

Contaminated soil was excavated from one of the 1800s brick gas holders during site remediation.

In addition to remediation oversight, SAI conducted the Community Air Monitoring Program during excavation and backfilling to ensure that dust and VOCs in the air did not migrate downwind. SAI also provided engineering services with the conceptual design of a soil vapor evacuation (SVE) system to be installed below the slab of the proposed building. The system would function as a final cover under the building, consisting of a sub-slab gas venting layer and a vertical collection/evacuation pipe running to a roof exhaust fan. SAI is providing final design and oversight of the SVE system, and is assisting JMS to prepare/finalize the Remedial Action Report.

SII in Armenia

Helping develop medical waste regulations

Sadat International, Inc. (SII) completed a World Bank-funded project to develop medical waste management (MWM) regulations and technical guidelines in Armenia. SII worked in association with WNWN Internatinal, Inc. on the four-month project, along with local consultants. This project follows last year's World Bank assignment to provide MWM awareness workshops in North Africa and the Middle East.

Medical waste inicnerator in one of the hospitals in the Armenian capital of Yerevan.

The project was part of a larger health sector development program aiming to improve the organization of the health care system in Armenia. SII focused its involvement on specific waste-related efforts to better manage public health threats and medical waste.

The main project tasks included: developing a regulatory framework, including a MW quantity assessment methodology, monitoring system and accountability system; developing technical guidelines for health facilities on safe practices for waste minimization, separation, handling, storage, transport, treatment and disposal methods; and developing and delivering a training course curricula aimed at "training the trainer." This project marks the first time SII has worked in Europe, having previously worked primarily in South America, Central America, Africa, and the Middle East.

IN THE NEWS

SAI is pleased to be a member of the **Wallace Roberts & Todd (WRT)** design team, which is a finalist in the national design competition to create two new urban state parks - one in Trenton and one in Paterson. NJDEP will oversee the parks, the New Jersey State Council on the Arts is the competition manager, and the New Jersey Institute of Technology's School of Architecture is providing technical assistance. Finalists produced park designs for public viewing and comment in both cities in March; final designs will be submitted in late May. For additional information go to www.nj.gov/dep/urbanparks.

SAI works closely with State agencies to meet dam permitting requirements

SAI's extensive permitting experience and knowledge of regulation proved critical to a Client involved in the construction and permitting of a two-dam pond system with wetlands mitigation.

In early 2000, the dam for a pond on a 126-acre farm in central New Jersey had been breached thereby lowering the water surface elevation to allow for pond dredging. Also, a large berm had been constructed downstream of the existing farm pond for a second, larger dam.

Following these activities, the Client was notified by NJDEP of the need for Dam Safety Permits for both the existing dam and for completion or removal of the newly constructed berm for the larger downstream pond.

It was at that point that SAI was retained to assist with applications for dam safety permits for the two structures and to assist in coordination with NJDEP regarding wetlands and stream encroachment issues.

To support an engineered approach to the two-dam system, SAI conducted a geological investigation including soil borings, laboratory analysis, stability and seepage analyses of the constructed berm. Preliminary hydrologic and hydraulic analyses were performed and a conceptual plan for a larger downstream pond that incorporated the already constructed berm was presented to NJDEP dam safety, wetlands and enforcement officials.

Based on positive input from NJDEP, SAI proceeded with design of the two-dam system that included reconstruction of the existing farm pond, design of a new downstream pond that incorporated the previously constructed berm, outlet works, pipe construction and emergency spillways, a catwalk, and controls. Design drawings and construction specifications were developed for the series of reports required by NJDEP's Dam Safety Section for construction permits for the project. These reports included:

- Hydraulics and Hydrology Report
- Hazard Classification Report
- Geotechnical Investigation Report
- Operation and Maintenance Plan
- Technical Specifications for
  - Dredging
  - Embankment repair
  - Embankment construction
  - Emergency spillway
  - Outlet works
  - Pipe construction
  - Earthwork and planting
  - Geosynthetic clay liner

Use of a geosynthetic clay liner was key to the rehabilitation of the downstream berm and improved hydrologic performance.

SAI prepared wetlands permits for the new design and worked with the Client and the wetlands specialist, Princeton Hydro, LLC, to restore impacted wetlands. As of this spring, the replanted wetlands have begun to establish and the ponds have been successfully constructed.

Overall photo of the larger downstream pond (top) and its Emergency Spillway and Stilling Basin at the larger downstream pond.

Project proceeds after strategic investigation of critical issues

Our Client was interested in developing a 3-acre parcel in New Jersey's "Gold Coast" in Bergen County. To clarify potential site contamination issues that could have had a significant impact on redevelopment opportunities at the site, SAI conducted a strategic investigation to identify critical issues of concern.

While employing NJDEP standard field sampling protocols, the initial investigation was not intended to satisfy all aspects of the NJDEP Technical Requirements for Site Remediation, nor ASTM Due Diligence protocols. Rather, the intent was to support an earlier Phase I report and to investigate critical issues that would directly and substantially impact the opportunity to redevelop the site as a residential property.

The preliminary efforts made it clear that based on identified contaminants and a thorough understanding of NJDEP regulations, site plans could be modified to allow project features to serve as a remedial cap. The project proceeded toward an approved Remedial Action Workplan, allowing for construction and successful marketing of a 15-story high end residential property along the Hudson River.

SAI engineers are assisting a major industrial Client with analyses of a third-party report on the structural integrity of a force main sewer pipe transversing the Client's property. SAI's efforts have included site management to minimize impacts to the pipe, and design of remedial alternatives.

Welcome!

Crystal Iacouzzi. Ms. Iacouzzi has joined the Science Division. She is a graduate of Cook College, Rutgers University, where she earned her BS degree in Environmental Policy, Institutions and Behavior Concentration in United States Environmental and Resource Policy. She also studied criminal justice for a year at John Jay College of Criminal Justice, Manhattan, NY. Prior to joining SAI Ms. Iacouzzi served as an intern at the Pennsylvania Resource Council, where she worked on a project in environmental education.

Roy Sirengo. Mr. Sirengo has joined the Science Division. He earned his ME in environmental engineering from University of Florida, Gainesville, in 2002, and has a BE in Chemical Engineering from Bangalore University in India. Mr. Sirengo has four years of environmental consulting and engineering experience. He has assisted in the design/maintenance of soil and groundwater remediation systems, developed workplans, and provided engineering oversight during construction and excavation activities. He also has experience with transportation and bulk storage of industrial chemicals.

Welcome to National Brownfield Associations

Brownfield group opens new office

SAI has been selected by the National Brownfield Associations (NBA) for the organization's new East Coast office. We extend a warm welcome to Chief Operating Officer Sue Boyle.

SAI's Joe Wiley welcomes Sue Boyle, NBA COO.

NBA is an international umbrella organization of national associations focused on the responsible redevelopment of brownfields. The organization is run by a volunteer leadership team of experienced brownfield practitioners and a professional, full-time staff. NBA USA was established in 1999; NBA Canada in 2005. NBA International hopes to expand next year to the UK and Australia. NBA USA, headquartered in Chicago, has 14 state Chapters.

NBA membership includes a mix of property owners, developers, transaction support people, local and state government participants, and federal government representatives. Chapters are primarily dedicated to providing educational events and local forums where members can learn and exchange ideas on best practices in brownfield redevelopment.

For information about NBA visit the NBA website at www.brownfieldassociation.org or call (609) 341-5870. For upcoming events and other information about the New Jersey chapter go to www.brownfieldassociation.org/NJ_Chapter.htm.

For Habitat for Humanity

SAI helps out on 'Women Build Day'

A group of 11 employees, family and friends of Sadat Associates spent a recent Saturday assisting the Raritan Valley Habitat for Humanity in Lambertville, NJ. Our group joined others from the NJ Builders Association, as well as the prospective owners, to help with hammering, painting and general work for the three homes. SAI was pleased to be a part of this program and commends the NJ Builders Association for making this event possible.

Participating in "Women Build Day" were (from left) Melissa Lindsay, Kate Kane, Susan Goetz, Dan DeLiberty, Crystal Iacouzzi, Khaled Benslimane, Jennifer O'Keefe and Rick Gimello. Also helping were Pete Kane and Sean O'Keefe (below left), who constructed porch railings on the houses. Rick and Crystal (right) helped finish an outbuilding. Also helping out but not pictured were Allison DiNoia, Lauri Baruch and Janet Johnson.

EDITOR: KATE KANE

From the Editor -

If you would like to receive a full-color electronic version of our newsletter in Adobe PDF format via email, or if you want additional information about SAI and its services, please email me at: kkane@sadat.com.

Thanks — we look forward to hearing from you.