



STATE OF CONNECTICUT
DEPARTMENT OF ENVIRONMENTAL PROTECTION



August 20, 2007

Peter W. Szymanski
Installation Manager
Stratford Army Engine Plant
550 S Main St.
Stratford, CT 06615

RE: Stratford Army Engine Plant (SAEP), Stratford, Connecticut

Dear Mr. Szymanski:

This letter is intended to outline environmental issues that the Department of Environmental Protection (DEP) considers it necessary for the Army to address at the Stratford Army Engine Plant. As a reminder, although this site is a Base Realignment and Closure site, the DEP considers the current primary driver for remediation at this site the requirements under the State's corrective action regulations (Regulations of Connecticut State Agencies (RCSA) 22a-449(c)-105(h)). These require remediation to be consistent with the Remediation Standard Regulations (RCSA 22a-133k) in their entirety. The DEP's expectation is that one, or several interrelated, remedial action plan(s) will be proposed for the site. Note also, the SAEP is an establishment under the definitions of Connecticut General Statutes (CGS) 22a-134 et seq, and is thus subject to the requirements of this statute when the property ownership is transferred. Site remediation under corrective action will also meet the requirements under the property transfer program, thus only one cleanup action is required.

DEP understands that the Army has a federal statutory requirement under CERCLA section 120(h) but this does not supersede the Army's obligation to meet the above state statutory and regulatory requirements. Even within the CERCLA context these requirements are ARARs and, although CERCLA may exempt administrative/permit requirements, DEP requires the substantive technical requirements be met. DEP can accept documents developed under the CERCLA templates, but will review them for compliance with state requirements. For example, DEP will review any Feasibility Study, Proposed Plan, and Remedial Design in the same manner as it would a Remedial Action Plan prepared under state programs.

Remediation of the Stratford Army Engine Plant has become stalled, for a variety of reasons, and it is important to re-establish a schedule to achieve remedial goals for the site. Achieving remedial goals is necessary regardless of whether the site is reused, however, for a redevelopment project to succeed, all stakeholders must be working towards the same environmental goals. One objective of this letter is to clearly state the DEP expectation.

DEP believes that one viable course of action for moving forward with resolution of this site is for the Army to seek a RCRA post-closure permit to delineate the RCRA corrective

action obligations at this site. Such a permit would be transferable in the event a sale of the SAEP occurs. This should meet the administrative function commonly addressed by a consent order in the early transfer process. Enclosed for your information is an example of a recent permit issued by DEP. Please advise me if you wish to pursue this course, and DEP will begin to develop specific permit language that reflects a schedule you may provide. The permit steps will also necessarily incorporate the issues discussed below, to address DEP concerns.

The DEP requires, under Section 22a-105(h)(6)(A) of the Regulations of Connecticut State Agencies (RCSA), an updated schedule for implementation of RCRA Corrective Action at the SAEP. Unless you provide a schedule for incorporation into a RCRA permit as discussed above, the DEP requests that the schedule include two paths: one based on the expected sale and early transfer of the property, and the other based on Army retained ownership. (DEP understands that a schedule based on the expected sale may be adjusted once a buyer is identified, but requires a schedule now to establish the scope of the project clearly.) The schedule must also incorporate provision for initiation of remediation as soon as practical.

The schedule you provide must, in addition to the timeline for the basic proposed site demolition/remediation document preparation and implementation, include:

- A timeline for pre-demolition activity that will be conducted as part of building lay-down. The schedule should focus on measures to be taken to ensure proper handling of building components such as switches, fluorescent lamps and ballasts, mercury lamps, and asbestos, before the building conditions deteriorate. The schedule should also include measures to ensure waste minimization during demolition through appropriate management of even nonfriable asbestos.
- A schedule for developing specific closeout plans for the RCRA regulated storage areas and the NPDES wastewater treatment plant. These may be structured as limited-scope plans, to cover any specific administrative closure requirements, if associated residual pollution is addressed within the framework of the overall site remediation. (SAEP should similarly address any storm-water or air permit closeout)
- An early implementation schedule, perhaps under a mechanism separate from the main remediation activity, for further evaluation and mitigation of the recently reported PCB contamination and other areas with elevated PCBs, including the tidal flat sediment. DEP recommends that this be implemented in advance of other remediation to achieve early close-out of Toxic Substance Control Act (TSCA) issues.
- A schedule for filling significant data gaps identified in the Remedial Investigation and DEP's review thereof (see discussion below).
- A schedule to develop ecologically based remedial goals for groundwater and for sediments within the tidal flats and 008 outfall area
- Provision to update the Quality Assurance Project Plan (QAPP) to incorporate DEP's recently promulgated Reasonable Confidence Protocols as necessary.

- o A date for revising the draft Feasibility Study to address all environmental conditions at the site.

The DEP provided, on September 27, 2005, comments (copy attached) on the final "Remedial Investigation Report, Stratford Army Engine Plant, Stratford Connecticut" (RI), dated September 2004. DEP cannot concur with the RI due to fundamental differences between the DEP and the Army, primarily regarding ecological risk, and also regarding the completeness of characterization of the site. DEP believes, however, that most data gaps identified in its earlier letter, while they may affect details of remedial design and certainty of cost estimates, can appropriately be filled as part of remedial design implementation, because the fundamentals of the remedial approach are not expected to change. Note that the property's marketability may be enhanced by earlier resolution of the identified uncertainty, allowing better remedial cost estimates. Of the issues identified previously, there are a few significant outstanding issues, recapped below, that DEP believes may be significant in developing an improved monetization of the remedial costs for the site, and should perhaps be addressed early in the marketing process.

- o DEP is concerned that, because of the significant environmental problems that have been identified, some smaller releases are "lost" in the current RI summary and subsequent remedial plan. DEP again requests that the soil and groundwater data be examined as complementary lines of evidence to ensure that all release areas are identified and addressed in the site remediation. In addition, DEP also requests reevaluation of 1) secondary impacts such as arsenic mobilization associated with release-caused reducing conditions and 2) pollution above criteria detected during the investigation, and apparently associated with the SAEP, but not explicitly linked to a documented release.
- o DEP's evaluation of the ecological data in the RI draws fundamentally different conclusions regarding the current ecological health of the tidal flat than those reached by the Army in the RI, as previously communicated to the Army. In addition, DEP considers the Army's February 8, 2005 proposal for long-term bio-monitoring of the tidal flat system inadequate and inappropriate. DEP again requires the Army develop remediation goals for the sediment within the tidal flat and 008 discharge area to address eco- and human health risks. Development of these goals forms the basis for discussion, in the remedial plan, of the appropriate actions to mitigate effects from contaminated sediment in these areas.
- o DEP's remediation regulations require that groundwater at the site meet the applicable surface water protection criteria in section 22a-133k-3(b). Due to the presence of the tidal flat, the remedial goal designated by this regulation is the surface water chronic aquatic toxicity values adopted in Connecticut's Water Quality Standards. DEP requires that the Army expand its groundwater evaluation to determine whether existing and expected future concentrations of contaminants in groundwater comply with these water quality criteria. For site-related constituents in groundwater for which there are no listed criteria in the

water quality standards, water quality criteria or benchmarks must be proposed by the Army as surface water protection criteria. The RI indicates that natural attenuation is acting at the site, and this may, with additional documentation, be proposed as a remedy for groundwater at the site that exceeds criteria. It is necessary to document that attenuation is at a rate sufficient to meet established target groundwater quality at the shoreline. In the absence of ecologically based remedial goals for groundwater developed for the site and adopted as an alternative criterion, the Army should, as noted above and mandated in the section 22a-133k-3 (b)(2), use DEP's adopted surface water quality standards for aquatic life chronic toxicity; and, for volatile organic chemicals, use equivalently protective values that were already provided by DEP. These values should be compared to the model-predicted attenuation achieved at the shoreline to demonstrate that the attenuation rate is sufficient to conclude there will be no future groundwater impact on the tidal flat. Monitoring of groundwater and periodic review, with a longer period of calibration values, of the model's continued validation of the assumption that the attenuation rate is adequate is required. The remedial plan must also incorporate a contingent provision for intervention and remedy reevaluation if the assumption of adequate attenuation is not confirmed.

The following two issues are associated with future development site plans. They are noted for completeness, with an understanding that the Army may meet its obligation for remediation in part through a land use restriction, affecting relevance of these comments.

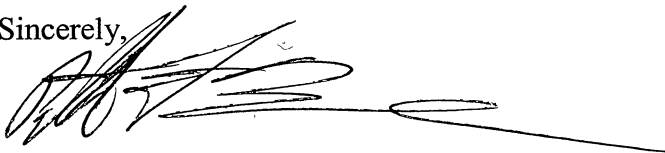
- o There is a reasonable expectation that the redevelopment of the site will incorporate a linear park along the shore and causeway to meet the access requirements of Connecticut's coastal zone management programs. The environmental data will need to be evaluated against the residential Direct Exposure Criteria or a DEP approved alternative criteria based on a recreational exposure scenario as part of the development of this park, to determine if remediation is necessary as part of park construction. Such a criteria set was not explicitly developed in the RI due to the focus on industrial reuse of the site. In addition, the environmental data available, when reviewed for this objective, may be insufficient to reach conclusions, which would be a data gap in the basic site information presented in the RI. DEP requires specific evaluation of future recreational shoreline use as part of any predevelopment scope of work.
- o Further data interpretation should also incorporate an evaluation of the origin of detected levels of solvent in outdoor air samples taken at the site. DEP believes this is needed to develop an adequate understanding of the conditions that must be addressed by the proposed limitations on future buildings constructed at the site after demolition. This information may also affect any future development decisions by subsequent owners, regarding feasibility of residential development, or desirability of active groundwater remediation.

The DEP has reviewed the Army's draft "Feasibility Study, Stratford Army Engine Plant, Stratford, Connecticut" (FS) dated May 2005 and finds it unacceptable, since it does not address all environmental issues on the site within the framework of RCRA Corrective Action to achieve Connecticut Remediation Standard Regulation compliance.

- o In addition to the issues noted above, the FS should describe how all areas identified in the RI that exceed any remedial criteria will be brought into compliance with the Remediation Standard Regulations. This must take into account the identified significant data gaps for many such areas and incorporate provision to acquire the necessary additional data for detailed design and implementation or final evaluation justifying no additional action.
- o The FS must include evaluation of remediation measures for sediment, in the tidal flat and near discharge 008, and site groundwater, both the near-shore contamination associated with the waste oil area and currently reaching the tidal flat, and other plumes that may affect the environment in the future.
- o While the general nature of the FS proposal to deal with contaminated soil and the vapor exposure pathway appears appropriate, the DEP will not provide detailed comments at this time, as the details may change once a concrete redevelopment proposal is defined. Most notably, if demolition includes slab removal, soils underneath the slabs must be addressed differently than if the slabs remain, and the volatile migration pathways may significantly change. It is also possible that, for a given redevelopment approach, active groundwater remediation would be desirable as a component in mitigation of the volatilization pathway.

DEP requires that you submit a revised schedule by September 30, 2007. Please contact Kenneth Feathers, of my staff, at 860 424-3770 if you have any questions.

Sincerely,



Patrick Bowe
Director
Remediation Division
Bureau of Water Protection and Land Reuse

C: Ernie Waterman, EPA
Lauri Saliby, DEP
Sandy Brunelli, DEP