

Northrop Grumman Corporation, OU3 Site Area, Meeting Minutes, January 14, 2010
Meeting 10
Revision 1 February 11, 2010

Attending: Kent Smith and John Cofman (NG); Steve Scharf, John Swartwout, and Chittibabu Vasudevan (NYSDEC); Jacquelyn Nealon (NYSDOH); Mike Wolfert and Carlo San Giovanni (ARCADIS); Carol Henry (EMAGIN)

Purpose of the Call: (1) Identify issues associated with finalizing the Site Area FFS and (2) Develop a plan that will lead to resolution of the issues

Action Items:

1. NYSDEC to send chromium data
2. NG to consider (not required) comparing / contrasting excavation or treatment of PCBs >10 ppm at 10-ft and 20-ft depths.
3. NG to consider the results of this call and Kent Smith to call Steve Scharf to discuss a path forward – whether additional discussion of strategic issues is necessary, or if the parties are ready to discuss specifics of NYSDEC's 12/7/09 comment letter on the Site Area FFS
4. NG to draft meeting minutes

Opening remarks:

NG:

- The call is strategic, not technical
- NG was taken aback by the 12/7/09 comment letter from NYSDEC, given the number of calls and meetings leading up to and following the submittal of the Site Area FFS
- The on-site remedy is part of a much bigger remedy that includes the off-site plume, and NG does not have unlimited funds.
- NG is committed to working with NYSDEC to develop an acceptable remedy, but before they can proceed with additional remedy development or the additional work in response to the 12/7 comment letter, they need to understand how that effort will lead to an acceptable remedy. For this call, NG has tried to focus on the strategic issues that seem to be the source of disconnect in an effort to move forward and finalize the FFS.

NYSDEC:

- The Bethpage site is very large and complex – more so than anyone probably anticipated when it came to light a few years ago.
- NG will establish the final alternative list from which NYSDEC will review and select a remedy soon. NYSDEC is hopeful that NG and the Department can resolve outstanding issues.
- NYSDEC believes that NG and the Department are close to having an acceptable FFS, and the 12/7 comments were for the most part minor.

Strategic Issues:

1. NG provided their understanding of the current state of the Site Area FFS:
 - NG and NYSDEC fundamentally agree on surface soil approach for the Park, Access Rd, and Sycamore Ave properties, although there remain some details to work out.

- NG and NYSDEC fundamentally agree on the groundwater containment approach, again with some details to work out.
 - NG and NYSDEC fundamentally agree on source treatment of VOCs.
 - Differences between the two parties are on how to address subsurface soils and specifically, subsurface soils containing metals and PCBs. NG believes that the differences may focus on how NG and NYSDEC interpret “to the extent feasible”, which by definition includes the concept of cost effectiveness, and the State’s definition of source. NYSDEC agrees that these appear to be the sources of disconnect.
 - NYSDEC requested clarification of NG’s recommended remedy for the subsurface soils. NG’s recommended remedy listed in the FFS is to remove sources (VOCs) and treat or excavate additional soil containing VOCs, PCBs, and metals to mitigate threats to the extent feasible. However, in response to the Department’s request last year to evaluate mass removal alternatives, NG evaluated removal / solidification of 98% of the blue green material in the top 10 feet of soil, and removal of 100% of PCBs exceeding 50 ppm in the top 6 feet of soil. NG has added these actions to the recommended remedy.
2. NG further explained that in developing the alternatives in the Site Area FFS, they carefully followed NYSDEC regulations and guidance. Specifically, NG considered the following:
- 6 NYCRR 375-2.8, which requires restoration of the site to pre-disposal conditions, to the extent feasible; and elimination or mitigation of all significant threats to public health and the environment through proper application of scientific and engineering principles
 - 6 NYCRR 375-1.8(c), which ranks source removal and control measures in a hierarchy from most preferable to least preferable
 - 6 NYCRR 375-1.8(d), which addresses groundwater protection and control measures
 - 6 NYCRR 375-1.8(f), which requires remedies to be evaluated against 9 selection criteria
 - DER-10, which provides guidance on site investigation and remediation
 - NYSDEC Commissioner’s Policy on Soil Cleanup Guidance; NG believes its recommended remedy meets the requirements of Approach 4.
3. Given the breadth of comments on the Site Area FFS, NG concluded that there were some broad issues that perhaps bore discussion with NYSDEC to understand differences in interpretations of these regulations and guidance, and NG narrowed down the issues to the following four:

Issue 1: Metrics and Endpoints to determine the extent of site cleanup

1. Both parties agree that restoring the site to pre-disposal conditions is not feasible, so determining the extent of cleanup is based largely on the concepts of extent feasible and removal of sources. NG believes that its recommended remedy (as modified following submittal of the Site Area FFS) meets the definitions of these concepts.
2. NG asked for clarification on how NYSDEC will select their recommended alternative (e.g., metrics and endpoints). NYSDEC responded that there are many parties involved and many criteria that are considered.
3. NG asked for clarification on how cost effectiveness is evaluated and used in remedy selection. NYSDEC explained that it is a consideration and NG will not be expected to spend an “unreasonable amount”. NG expressed concern that NG’s and NYSDEC’s interpretation of cost effectiveness may not be consistent.
4. NYSDEC directed NG to page 6 of the Commissioner’s new policy for an explanation of how NYSDEC selects its recommended remedy.

5. NYSDEC suggested selecting a depth to which to treat / excavate soils. NG explained that is the approach that was taken – the selected depth was 6 or 10 feet, depending on the depth of utilities.

Issue 2: Definition of source

1. NYSDEC and NG reviewed the definition of source from 6 NYCRR 375-1.2(a). The Department believes that the key phrase is “in sufficient concentrations” and that migration is not required to meet the definition of source. NG believes that migration is necessary to meet the definition of source, given the specific language of the definition: “. . . in sufficient concentrations to migrate in that medium, or to release significant levels of contaminants to another environmental medium [emphasis added] ...”
2. NG agrees that VOCs are a source at the Park but does not agree that metals or PCBs are sources because they do not migrate. NYSDEC indicates that the assumption of no-migration cannot be made. The Department also indicated by their mere presence, the metals and PCBs could be moved or spread around at some point in the future. NG pointed out that the metals and PCBs have likely been present ½-century and have not migrated.
3. NYSDEC asked if NG knows the extent of metals and PCB source areas. While NG does not agree that there are any such source areas, they have identified the extent to which PCBs are present at multiple concentrations and they have identified the extent of the blue-green material.
4. The decision was reached to “agree to disagree” on the definition of source at this time.
5. NYSDEC concluded the discussion by suggesting that NG “do the best you can” in developing the alternatives, given the differences of opinion.

Issue 3: Breakdown soils by contaminants

1. Some of the comments in the 12/7 letter requested that NG break down volumes by contaminant concentrations, and NG requested clarification on how this effort would further development of a recommended remedy. NYSDEC agreed that NG would not need to complete this task.

Issue 4: Additional PCB alternatives

1. NYSDEC requested that NG consider calculating the cost difference in treating /excavating PCBs to 20 ft rather than 10 ft. NG is not required to make this calculation but agreed to consider it.
2. NYSDEC is of the opinion that more alternatives are generally better, in anticipation of public comments.

Plan to Resolve Issues

NG and NYSDEC will reflect on this meeting and Kent will call Steve to discuss the next step – either a follow-up strategy call/meeting or a call/meeting to discuss the specifics of the 12/7 comment letter.

Following is the status of the strategic issues:

- Issue 1 - Not resolved, may need further discussion of the interpretations of “to the extent feasible” and cost effectiveness.
- Issue 2 - Not resolved, but may not need to be resolved. NG and NYSDEC do not agree on the definition of source, but that may not affect moving forward, since the alternatives that NG is providing may sufficiently address the “source areas” as referred to by NYSDEC.
- Issues 3 and 4 - Resolved. NG will not be required to break down soils by contaminants or develop additional PCB alternatives beyond those in NG’s recommended alternative. However, NG did agree to consider adding the additional alternative of PCB removal / treatment to a depth of 20 feet.

Closing Comments – see Action Items