



TETRA TECH

PITT-11-7-062

November 20, 2007

Project No. 112G00477

Mr. Howard Hickey
NAVFAC MW
201 Decatur Avenue
Building 1A, Code EV
Great Lakes, Illinois 60088

Reference: CLEAN Contract N62467-04-D-0055
Contract Task Order No. 0042

Subject: **Draft**
Navy Response to United States Environmental Protection Agency (USEPA)
Comments (Received Electronically: November 15, 2007) Regarding Quality
Assurance Project Plan (QAPP) Addendum No. 3 for Solid Waste Management
Unit (SWMU) 9 (Pesticide Control / R-150 Tank Area)
Naval Surface Warfare Center (NSWC) Crane
Crane, Indiana

Dear Mr. Hickey:

From August 27 through 31, 2007, additional sampling was conducted at SWMU 9 for herbicides. On November 15, 2007, the Navy received EPA comments on the QAPP associated with the additional sampling at SWMU 9 (QAPP Addendum No. 3). Enclosed, for your review and comment, are draft responses to November 15, 2007 USEPA comments.

An electronic copy of the attached response to comments will be provided via electronic mail (e-mail) to facilitate electronic review and comment.

Please note that the QAPP has been "marked up" as described in the responses. Once the Navy has reviewed and approved these responses, revisions to QAPP Addendum No. 3 will be issued.



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Mr. Howard Hickey
NSWC Crane
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Please contact Valerie Plachy at 412-921-8389 (e-mail: Valerie.Plachy@tetrattech.com) or me at 412-921-8308 (e-mail: Ralph.Basinski@tetrattech.com) regarding any questions or comments.

Sincerely,

Ralph R. Basinski
Task Order Manager

RRB:VJP/mlg
Enclosure

cc: Mr. Tom Brent, NSWC Crane (letter and enclosure)
Ms. Lee Anne Rapp, NAVFAC Atlantic (PDF copy of letter via e-mail)
Ms. Bonnie Capito, NAVFAC Atlantic (PDF copy of letter via e-mail)
Mr. John Trepanowski, Tetra Tech (letter and enclosure)
Mr. Kim Turnbull, Tetra Tech (letter and enclosure)
Mr. Garth Glenn, Tetra Tech (letter only)
Project File – CTO 0042

ENCLOSURE 1

**RESPONSE TO US EPA COMMENTS DATED NOVEMBER 15, 2007 (E-MAIL) ON
DRAFT QAPP ADDENDUM NO. 3
FOR SWMU 9 – PESTICIDE CONTROL AREA**

**RESPONSE TO EPA COMMENTS DATED NOVEMBER 15, 2007
RESOURCE CONSERVATION AND RECOVERY ACT (RCRA) ADDENDUM NO. 3 TO THE QUALITY
ASSURANCE PROJECT PLAN (QAPP) FOR SWMUs 8, 15, 18, 19, 20, AND THE OLD GUN TUB
STORAGE LOT FOR SWMU 9 (PESTICIDE CONTROL/R-150 TANK AREAS)
NSWC CRANE
CRANE, INDIANA**

EPA comments are shown in bold font. Navy responses to each comment are shown in regular font. Text changes in the QAPP are shown in italic font enclosed in quotation marks within the response.

EPA-General. This is an already implemented QAPP, so these comments are 'after-the-fact.'

Response to EPA-General: Comment acknowledged.

EPA-1. If approval is still needed, a QAPP signoff page should be added including names of all relevant personnel who should (or should have) approve(d) the document.

Response to EPA-1: The title page (signoff page) for the September 2007 version of QAPP Addendum No. 3 includes signature blocks for the Tetra Tech Project Manager (Ralph Basinski) and Quality Assurance Manager (Kelly Carper). This title page also includes signature blocks for the U.S. EPA Region 5 Corrective Action Chief (Hak Cho) and Waste Management Branch Chief (Jose Cisneros), the NAVFAC NW Remedial Project Manager (Howard Hickey), the NSWC Crane Environmental Restoration Site Manager (Tom Brent), and the Laucks Testing Laboratory Quality Assurance Officer (Harry Romberg) and Laboratory Director (Hugh Prentice).

The title page (signoff page) is provided as Attachment 1 to this comment response document.

No changes have been made to the SWMU 9 QAPP Addendum No. 3 in response to this comment.

EPA-2. Did the 2004 'parent' QAPP contain Laucks' SOPs for herbicides and pesticides?

Response to EPA-2: The following Laucks' SOPs were referenced in Table 6-1 (page 3 of 4) of the original 2004 QAPP:

- Pesticides in solid samples: LTL-3302 (preparation) and LTL-8084 (analysis).
- Herbicides in solid samples: LTL-3011 (preparation) and LTL-8151 (analysis).

The original QAPP did not include copies of these SOPs. Table 6-1 from the original QAPP is provided as Attachment 2 to this comment response document.

No changes have been made to the SWMU 9 QAPP Addendum No. 3 in response to this comment.

EPA-3. Section 4.0/pp.2-3): An emphasis of this study is on herbicides and yet this group of compounds was evidently dropped from Addendum no. 4 for confirmation purposes. Presumably, herbicides weren't detected in this phase of work, that is, down to suitable/relevant target levels?

Response to EPA-3: Correct. No herbicides were detected at concentrations greater than the cleanup goals.

No changes have been made to the SWMU 9 QAPP Addendum No. 3 in response to this comment.

EPA-3 (continued). This sampling did not appear to check for the presence of herbicides within designated pesticide excavation areas, however. It may not be known if herbicides are present in those soils and, if based on historical practices herbicides could be present, they should be included in post-excavation confirmation sampling.

Response to EPA-3 (continued): Most of the samples were collected within the pesticide excavation area depicted on Figure 1. These samples were collected to determine if herbicide contamination was co-located with pesticide contamination. The sample locations and rationale are provided in Table 1. However, samples 09SB090 through 09SB107 were collected near previous sample locations within the pesticide excavation area and they were analyzed for herbicides.

Because herbicides were not detected at significant levels, post excavation sampling will not include herbicides.

No changes have been made to the SWMU 9 QAPP Addendum No. 3 or Addendum No. 4 (confirmation sampling) in response to this comment.

EPA-4. Section 5.0/p.3: Rationale for why the cited 2004 QAPP is the 'parent' QAPP for Addendum no. 3 (& later also for no. 4) is noted on p.3. This should be reiterated into a relevant portion of the Addendum no.4.

Response to EPA-4: A new 1st paragraph has been added to Section 1.2.1 Subsection, Confirmation Sampling to SWMU 9 QAPP Addendum No. 4 as follows:

"Sample collection and analysis, handling of confirmation sampling derived waste, and decontamination procedures will be consistent with those described in the approved QAPP for SWMUs 8, 15, 18, 19, and 20 and the Old Gun Tub Storage Lot (Tetra Tech, 2004). The rationale for using this QAPP as the source QAPP is that it was prepared for similar field activities and analytical methods at NSW Crane and was approved by EPA Region 5, which is also the lead regulatory agency for the SWMU 9 activities."

No changes have been made to the SWMU 9 QAPP Addendum No. 3 in response to this comment.

EPA-4 (continued). Also, here it is stated that IDEM is the lead Agency for SWMU 9 actions. This should be reflected, appropriately, in the submitted signoff sheet. (But also how does this impact the relevancy of my recent comments on Addendum no.4?)

Response to EPA-4 (continued): EPA Region 5, not IDEM, is the lead agency for SWMU 9 actions. The second sentence of the first paragraph of Section 5.0 has been revised as follows:

"The rationale for using this QAPP is that it was prepared for similar field activities and analytical methods at NSWC Crane and was approved by the United States Environmental Protection Agency Region 5, which is also the lead agency for SWMU 9 activities."

EPA-5. I couldn't find any of the soil boring locations I looked for indicated following the first six indicated in column 1 of Table 2 in the accompanying figure 1.

Response to EPA-5: Sample locations 09SB090 through 09SB107 were collected near existing sample locations within the proposed pesticide excavation area. The cross-reference of the existing and new sampling locations is provided in the third column (Comments and Sample Rationale) of Table 1. For example, sample location 09SB090 was collected near existing sample location 09SB023.

No changes have been made to the SWMU 9 QAPP Addendum No. 3 in response to this comment.

ATTACHMENT 1

SIGNATORY PAGE

**RESOURCE CONSERVATION AND RECOVERY ACT
ADDENDUM NO. 3 TO THE
QUALITY ASSURANCE PROJECT PLAN
FOR
SWMUs 8, 15, 18, 19, 20, AND THE OLD GUN TUB STORAGE LOT
FOR
SWMU 9 (Pesticide Control/R-150 Tank Areas)**

**NAVAL SURFACE WARFARE CENTER
CRANE DIVISION
CRANE, INDIANA**

**COMPREHENSIVE LONG-TERM
ENVIRONMENTAL ACTION NAVY (CLEAN) CONTRACT**

**Submitted to:
Naval Facilities Engineering Command
Midwest
201 Decatur Avenue
Building 1A, Code EV
Great Lakes, Illinois 60088**

**Submitted by:
Tetra Tech NUS, Inc.
234 Mall Boulevard, Suite 260
King of Prussia, Pennsylvania 19406**

**CONTRACT NUMBER N62467-04-D-0055
CONTRACT TASK ORDER 0042**

SEPTEMBER 2007

PREPARED UNDER THE SUPERVISION OF:

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ATTACHMENT 2

TABLE 6-1

TABLE 6-1

**SUMMARY OF ORGANIC, INORGANIC, AND MISCELLANEOUS ANALYTICAL PROCEDURES
FOR SOLID AND AQUEOUS SAMPLES
SWMUs 8, 15, 18, 19, AND 20 AND THE OGTSL
NSWC CRANE, CRANE, INDIANA
PAGE 1 OF 4**

Analytical Parameter ⁽¹⁾	Preparation Method ^(2,3,4)	Analytical Method	Preparation/Analytical SOP(s)
ENERGETICS			
SW-846 8330	Aqueous SW-846 8330	SW-846 8330	Aqueous LTL-3077 / LTL-8330
	Solid SW-846 8330		Solid LTL-3161 / LTL-8330
Perchlorate	EPA Method 314.0	EPA Method 314.0	Aqueous LTL-9136 Solid LTL-9136
METALS			
Metals (except Antimony, Tin, and Mercury)	Aqueous SW-846 Methods 3010A (no HCl) or 3015 (no HCl)	SW-846 Method 6020	Aqueous LTL-7009 or LTL-7010/ LTL-7202
	Solid SW-846 Method 3050B (include H ₂ O ₂ but no HCl)		Solid LTL-7015/ LTL-7202
Antimony and Tin	Aqueous SW-846 Methods 3010A or 3015 (no H ₂ O ₂)	SW-846 Method 6020	Aqueous LTL-7009 or LTL-7010/ LTL-7202
	Solid SW-846 Method 3050B (include HCl but no H ₂ O ₂)		Solid LTL-7015/ LTL-7202
Mercury	Aqueous SW-846 Method 7470A	Aqueous SW-846 Method 7470A	Aqueous LTL-7501
	Solid SW-846 Method 7471A	Solid SW-846 Method 7471A	Solid LTL-7501

TABLE 6-1

SUMMARY OF ORGANIC, INORGANIC, AND MISCELLANEOUS ANALYTICAL PROCEDURES
 FOR SOLID AND AQUEOUS SAMPLES
 SWMUs 8, 15, 18, 19, AND 20 AND THE OGTSL
 NSWC CRANE, CRANE, INDIANA
 PAGE 2 OF 4

Analytical Parameter ⁽¹⁾	Preparation Method ^(2,3,4)	Analytical Method	Preparation/Analytical SOP(s)
VOLATILES			
SW-846 8260B	<u>Aqueous</u> SW-846 Method 8260B (25 mL purge)	<u>Aqueous</u> SW-846 Method 8260B (25 mL purge)	<u>Aqueous</u> LTL-8265 (low level)
	<u>Solid</u> SW-846 Method 5035 (5 g purge)	<u>Solid</u> SW-846 Method 8260B (5 g purge)	<u>Solid</u> LTL-8265
SW-846 8015B	<u>Aqueous</u> SW-846 Method 8015B (25 mL purge)	SW-846 Method 8015B	LTL-8019
	<u>Solid</u> SW-846 Method 5035 (5 g purge)		
SEMIVOLATILES			
SW-846 8270C	<u>Aqueous</u> SW-846 Method 3520C	SW-846 Method 8270C	<u>Aqueous</u> LTL-3000 / LTL-8279
	<u>Solid</u> SW-846 Method 3550B		<u>Solid</u> LTL-3100 / LTL-8279
Selective Ion Monitoring SW-846 Methods 8270C	<u>Aqueous</u> SW-846 Method 3520C	SW-846 Methods 8270C-SIM	<u>Aqueous</u> LTL-3001 / LTL-8277
	<u>Solid</u> SW-846 Method 3550B		<u>Solid</u> LTL-3450 / LTL-8277
Hexachlorophene and Pentachlorophenol	SW-846 Method 8151A	SW-846 Method 8151A	<u>Aqueous</u> LTL-3510 / LTL-8151
			<u>Solid</u> LTL-3011 / LTL-8151

TABLE 6-1

**SUMMARY OF ORGANIC, INORGANIC, AND MISCELLANEOUS ANALYTICAL PROCEDURES
FOR SOLID AND AQUEOUS SAMPLES
SWMUs 8, 15, 18, 19, AND 20 AND THE OGTSL
NSWC CRANE, CRANE, INDIANA
PAGE 3 OF 4**

Analytical Parameter ⁽¹⁾	Preparation Method ^(2,3,4)	Analytical Method	Preparation/Analytical SOP(s)
PESTICIDES			
Pesticides	SW-846 Method 8081	SW-846 Method 8081	<u>Aqueous</u> LTL-3202 / LTL-8084 <u>Solid</u> LTL-3302 / LTL-8084
PCBs			
PCBs SW-846 8082	SW-846 Method 8082	SW-846 Method 8082	<u>Aqueous</u> LTL-3202 / LTL-8084 <u>Solid</u> LTL-3302 / LTL-8084
HERBICIDES			
Herbicides	SW-846 Method 8151	SW-846 Method 8151	<u>Aqueous</u> LTL-3510 / LTL-8151 <u>Solid</u> LTL-3011 / LTL-8151
MISCELLANEOUS PARAMETERS			
Total organic carbon	<u>Aqueous</u> SW-846 9060 <u>Solid</u> Lloyd Kahn	<u>Aqueous</u> SW-846 9060 <u>Solid</u> Lloyd Kahn	<u>Aqueous</u> LTL-9115 <u>Solid</u> LTL-9116
Hardness	Standard Method 2340B	Standard Method 2340B	Calculation
pH	SW-846 Method 9045C	SW-846 Method 9045C	<u>Solid</u> LTL-9113
Cation exchange capacity	SW-846 Method 9081	SW-846 Method 9081	<u>Solid</u> LTL-6006
Cyanide	SW-846 Method 9012A	SW-846 Method 9012A	<u>Aqueous and Solid</u> LTL-9104
Nitrate + nitrite as nitrate	EPA 353.2	EPA 353.2	<u>Aqueous</u> LTL-9125

TABLE 6-1

**SUMMARY OF ORGANIC, INORGANIC, AND MISCELLANEOUS ANALYTICAL PROCEDURES
FOR SOLID AND AQUEOUS SAMPLES
SWMUs 8, 15, 18, 19, AND 20 AND THE OGTSL
NSWC CRANE, CRANE, INDIANA
PAGE 4 OF 4**

TBD – To be determined.

- 1 Reference Table 1-5 of Section 1.0 for the specific compounds.
- 2 U.S. EPA, 1986. Test methods for Evaluating Solid Wastes, Physical/Chemical Methods. SW-846, Third Edition and subsequent updates.
- 3 U.S. EPA Chemical Analyses of Water and Wastewater, March 1983.
- 4 Standard Method for the Analysis of Waters and Wastewaters, American Public Health Association and others, 20th edition, 1998.