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NAS KEY WEST
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DRAFT MINUTES FROM 14 AND 15 AUGUST 1995 REGULATORY MEETING ON
SUPPLEMENTAL RESOURCE CONSERVATION AND RECOVERY ACT FACILITY
INVESTIGATION/REMEDIATION INVESTIGATION WORK PLAN WITH TRANSMITTAL LETTER
NAS KEY WEST FL
10/5/1995
ABB ENVIRONMENTAL SERVICES INC



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October 5, 1995

Brown and Root Environmental
ATTN: Kevin Donnelly
Technical Coordinator
Foster Plaza Drive
661 Andersen Drive
Pittsburgh, PA 15220-2745

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**Subject: Draft Meeting Minutes for 14-15 August 1995
Draft Responsibility Assignment Matrix
Naval Air Station Key West
Key West, Florida**

Dear Kevin:

To expedite distribution of the August meeting minutes and draft Responsibility Assignment Matrix, ABB Environmental Services, Inc., on behalf of Southern Division, Naval Facilities Engineering Command (SOUTHNAVFACENGCOM), is pleased to forward these documents to you.

Should you have any questions, comments, or revisions please do not hesitate to give me a call.

Sincerely,

ABB ENVIRONMENTAL SERVICES, INC.

Robin S. Futch, P.G.
Technical Director

ABB Environmental Services Inc.

Sponsor
Special Olympics
World Games
Connecticut 1995



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September 12, 1995

MEMORANDUM

TO: Dudley Patrick/SDIV

FROM: Robin Futch/ABB-ES

**SUBJECT: Meeting Minutes
NAS Key West Regulatory Meeting
Atlanta, Georgia
14-15 August 1995**

A List of Meeting Attendees is included as Attachment A.

The overall objective of the meeting was to discuss comments to the Supplemental RFI/RI workplan and Corrective Measures Study (CMS) workplan prepared by ABB Environmental Services, Inc. In addition, comments to the Bechtel Environmental Inc. (BEI) workplan were discussed.

The specific comments that were discussed throughout the course of the meeting relative to the Supplemental RFI/RI and CMS workplans are summarized in Attachment B. Included with the comments are responses that are being proposed for addressing the comments.

Other topics and items discussed during the meeting that are not included in Attachment B are summarized below.

1. USEPA has access to Internet. Jay Bassett and Martha Berry can be reached at:

LAST NAME.FIRST NAME@EPAMAIL.EPA.GOV

2. SWMU 7 - Jay noted that the Interim Removal Action (IRA) report for SWMU 7 could essentially be the No Further Action (NFA) report for the site. If confirmation samples are collected at strategic locations that fulfill both the IRA and RFI/RI report requirements, the final reports could be considered NFA documents.

3. Regarding sediment background samples and analysis, Jay suggested that SW 846 may not perform adequate digestion to meet the Florida Department of Protection (FDEP) sediment quality criteria. The methods proposed need to be verified with FDEP.

4. Jay noted that screening data can be used when substantiated by field characterization data.

5. With respect to risk assessment, it was suggested that after collecting additional IRA and RFI/RI data, both the previously collected data and the new data be reviewed. This data would then be compared to FDEP screening values to determine if a risk assessment is required. Ideally the IRA will have removed any potential risk. The risk assessment should be conducted on validated data.

For the risk assessment, the data may exceed residential criteria but land use is industrial. The risk assessment could be conducted using an industrial scenario. However, if the land use ever were to become residential, the risk assessment would have to be revisited.

6. Jorge noted that after the workplan is finalized, FDEP will review SWMU aspects of the RFI/RI report since FDEP is trying to get RCRA/HSWA delegated authority.
7. It was recommended that Brown & Root (B&R) develop a stand-alone report that explains and defines background for both Truman Annex and Boca Chica.
8. SWMU # 1 - BEI is using 21 ppm as the removal standard for lead at this SWMU. Jorge noted that FDEP provides standards and that 30.2 ppm may be acceptable. However, the Navy is welcome to develop risk-based numbers for clean-up if they desire.
9. Confirmation Sampling Workplan - Jay inquired if the BEI Confirmation Sampling workplan has been completed. Mac noted that they have not yet developed the workplan. Roy H. stated they will consult with the regulators regarding the number of samples that will be collected.
10. Jay noted that if a CMS is required, USEPA will determine the need to conduct one.
11. For NFA sites (after the IRA) the following steps will be required:
 - RFI/RI report communicates data and justification for NFA;
 - A letter would be sent from USEPA confirming NFA, and;
 - A minor permit modification would be completed to change the site status.
12. IRA Workplan - Jorge considers that FDEP has approved the BEI workplan. FDEP reviewed Revision 0. BEI responded to comments and produced Revision 1. Jorge will issue a letter confirming FDEP approval of the workplan.
13. Mac explained the status of the workplan. Contractually, Revision 0 is the only approved workplan, but it does not include a plan for work at IR-1, IR-3, SWMU-1, and SWMU-2. Revision 1 is in draft form and additional work is required before SDIV approves it. Revision 1 now includes IR-3 and the other 3 sites. BEI will work to Revision 0 pending approval of Revision 1, but will conform to Revision 1 changes through the use of field change notices.
14. Jay and Jorge agreed that BEI's workplan satisfies the requirements of an Engineering Evaluation/Cost Analysis (EE/CA).
15. BEI to prepare Action Memorandum for the IRAs at IR-1, IR-7, and IR-8 prior to construction. IR-3 is a time critical removal. Therefore, the Action Memorandum is to be prepared after construction. Jay and Jorge noted that a 30-day public comment period would not be necessary since it would impact the schedule.
16. BEI will provide an updated schedule to all participants and any subsequent updates.

17. Mac stated that the schedule should be complete by mid-December, provided permits, approvals, and decisions are timely.

18. Jorge will assist in expediting permits for SWMU-1, SWMU-3, and AOC-B by writing a letter to the agency granting the permits.

19. BEI is to provide a schedule showing "permits plus ___" to Dudley. The schedule should define the amount of time that will be required to implement after a permit is issued.

20. SWMU # 9 - The BEI workplan should describe how BEI will monitor and adjust the groundwater treatment system in coordination with ABB-ES and B&R.

21. IR-1 - BEI has found elevated levels of lead at 0-6-inches and 12-18-inch below ground surface in soils. In addition, the site boundary has grown in areal extent.

Discussions were held about possible removal actions at the site. Possible alternatives include capping the site to break the contamination pathway to workers on site and/or surface excavation of site (areas and depths to be determined by delineation results);

Jorge agreed that groundwater is not the problem at the site. Jorge agreed that capping and monitoring would be acceptable as an IRA.

The risk assessment for the site must address surficial soil.

22. IR-3 - Groundwater is not a concern at this site. ABB will explain monitoring well locations and numbers in the RFI/RI workplan.

The risk assessment should follow a tiered approach. If it can be demonstrated that pesticide concentrations at the site are below applicable criteria (i.e., FDEP cleanup goals for military sites, etc.) than a full-blown risk assessment would not be needed.

Confirmation samples need to be analyzed for pesticides and lead only.

NAS Key West deferred the decision of final surface treatment for the site until after the IRA. NAS Key West IR program coordinator to check and get back to BEI.

23. AOC - B - Jorge agreed that although BEI found zinc in mangroves up to 400 ppm, there is no need to excavate into the mangroves to get zinc.

Jay and Jorge agreed that the best solution is to clean out the site in clear areas to the edge of the mangroves.

ATTACHMENT A
LIST OF ATTENDEES

CLIENT		JOB NUMBER	
SUBJECT KEY WEST PROJECT MANAGEMENT MEETING			
BASED ON		DRAWING NUMBER	
BY	CHECKED BY	APPROVED BY	DATE 3/14/95

NAME / POSITION	ORGE	PHONE / FAX
KEVIN DONNELLY (CLEAN III TECHNICAL COORDINATOR)	BBR	(412) 921-8195 / 4040
KEVIN WALTER Aiken, S.C.	BROWN BROOK ENVIRONMENTAL PHASE II RI/RFI PM	(803) 649-7963 X341
Jim Simmen Environmental Protection Specialist	US NAVY	Key West (305) 293-2881
Dudley Patrick	SODIU RPM/ EIC	803/743-0541 Fax -0465
Bill Carley IR Coordinator, Env. Protection Spec.	NAS Key West	(305) 293-2061
Robin Futch Technical Director	ABB-ES	904/656-1293, ext 114 (f) 904-877-0742
Roy HOEKSTRA Project Manager E49	BEI	615-220-2271 2748
PHILIP N. GEORGARION PROJ MANAGER	ABB-ES	(904) 269-7012 VOICE (904) 264-5632 FAX
John Bleiler, Ecological Risk	ABB-ES	617 245 6606 VOICE 246 5060 FAX
JAY V BOSSETT	EPA	(404) 347-3016 -5205 FAX
MARTHA BERRY	EPA	" " "
MAC McNEIL	BEI PROJ MGR	615-222-2745/2748
JORGE R. CASPARY	FDEP-Tallahassee SR. RPM. DOD GROUP	904-488/3935

ATTACHMENT B
RESPONSES TO COMMENTS

**DRAFT SUPPLEMENTAL RFI/RI WORKPLAN
NAS Key West, Key West, Florida**

**Response to Comments from U.S. Environmental Protection
Agency, Region IV**

1. AOC A - The Subpart X permit will be the regulatory driver for Demolition Key. Closure of that SWMU will be covered under that program and not the RFI program.

Comment noted.

2. Ecological Risk Assessment (Supplemental RFI\RI Workplan, Appendix A) - Ecological risk assessment is adequate as per USEPA.

Comment noted.

3. Facility-Wide Background Soils - During RFI\RI locate samples in the field, plot and forward to USEPA and FDEP for concurrence prior to collection. These locations can be clarified in a technical memorandum. This approach needs clarification in the workplan and Sampling and Analysis Plan (SAP).

The approach for locating facility-wide background sampling locations and verification and concurrence from USEPA and FDEP prior to sample collection will be clarified in the text.

4. Facility-Wide Background Samples - Analyze specifically for inorganics and pesticides. Volatile organic compounds (VOCs) and semivolatile organic compounds (SVOCs) not required.

The analyte table will be revised to reflect the comment noted above.

5. Data Management/Technical Memorandum/Workplan Addenda - Explain the process of transitioning to new contractor data, etc. more clearly. Clarify process of modifications to workplan through technical memorandum.

A Responsibility Assignment Matrix (RAM) has been developed and sent to all parties for comment and revision. (A copy is included with these comment responses) This RAM will be included in the RFI/RI workplan along with further explanation regarding the transition to a new contractor. In addition, discussion will be added to clarify the use of technical memorandum to augment the final RFI/RI workplan as needed.

6. Terraprobe™ - Explain the technology and its application more clearly in workplan.

More detailed explanation will be provided regarding the use of the Terraprobe™.

7. Groundwater Sampling - VOCs can be sampled with a peristaltic pump for metals. Specify type of pump to be used.

The type of pump to be used will be specified.

**DRAFT SUPPLEMENTAL RFI/RI WORKPLAN
NAS Key West, Key West, Florida**

**Response to Comments from U.S. Environmental Protection
Agency, Region IV**

8. Page 2-6, Section 2.2.5 Hydrogeologic Investigation - Clarify what was intended there. Does it include slug testing.

Clarification will be added to the text.

9. Page 2-16, Section 2.2.6.3 - Coordinate toxicity testing with Brown and Root.

All risk assessment work will be conducted by Brown and Root. They will review and provide comments on any toxicity testing that is proposed.

10. Page 2-12, Table 2-2 - Complete table and include in workplan. Verify with Nature Conservancy Report.

This table will be completed in the final workplan.

11. Sediments - Background - Keep polynuclear aromatic hydrocarbons in analyte list for background.

Comment noted.

12. Soils and Groundwater - Background - For background, analyze for metals and pesticide/PCBs only.

The analytical table will be revised accordingly.

13. SWMU #1, Boca Chica Open Disposal Area

- a. Reference back to Bechtel Environmental, Inc. (BEI) and how confirmation sampling will be coordinated and incorporate into workplan. Delineate activity as a BEI responsibility.

The RAM described above will clarify sampling responsibilities. Confirmation Sampling will be noted in the text as a BEI responsibility.

- b. If other contaminants are found downgradient of SWMU #1, additional wells may be

Comment noted. Text will be added to clarify the potential need for additional wells based on analytical results.

14. SWMU #2, Boca Chica DDT Mixing Area

- a. Analyze confirmation sediment samples for Total Organic Carbon (TOC).

TOC will be added to the analyte list.

**DRAFT SUPPLEMENTAL RFI/RI WORKPLAN
NAS Key West, Key West, Florida**

**Response to Comments from U.S. Environmental Protection
Agency, Region IV**

14. SWMU #2, Boca Chica DDT Mixing Area

- b. Make qualifying statement regarding placements of new monitoring wells upgradient in text. Note in the text that locations will be determined after the Interim Removal Actions and detailed in Technical Memorandum.

A statement will be added regarding upgradient wells and their final locations. These final locations will be determined following the Interim Removal Actions, will be defined in a Technical Memorandum, and submitted to and approved by USEPA and FDEP prior to installation.

- c. Move monitoring well locations closer to discharge points.

Monitoring well locations will be revised to ensure placement closer to discharge points.

15. SWMU #3, Boca Chica Fire Fighting Training Area

- a. Define groundwater flow with several rounds of groundwater elevations.

This activity will be added to the text.

- b. Resample hot wells and address new wells as needed based on data.

Clarification will be added to the text regarding this approach.

16. SWMU #5, Boca Chica AIMD Building - Collect a biased soil sample on the slope side of the berm toward the building.

A biased soil sample location will be added on the slope side of the berm toward the building.

17. SWMU #9, Jet Engine Test Cell

- a. Clarify which wells are to be installed by BEI and which are to be installed as part of RFI/RI.

The map will be clarified to reflect which wells BEI will install and which are existing

- b. Collect surface soils - one at shallow depth and one at top of water table.

Surface soils and depths to be sampled will be clarified. The final locations will be coordinated with USEPA and FDEP.

**SUPPLEMENTAL RFI/RI WORKPLAN
NAS Key West, Key West, Florida**

**Response to Comments from U.S. Environmental Protection
Agency, Region IV**

18. Groundwater flow directions should be shown on all figures related to groundwater.

All groundwater figures will have groundwater flow directions defined.

19. The Final RFI/RI workplan needs to be sealed by a Professional Geologist.

The final RFI/RI workplan will be sealed by a P.G.

**DRAFT SUPPLEMENTAL RFI/RI
WORKPLAN ADDENDUM
NAS Key West, Key West, Florida**

**Comments From the U.S. Environmental Protection
Agency, Region IV - Office of Health Assessment**

General Comments to the RPM

1. Page B-4, Selection of Contaminants of Potential Concern.

Under the surface soil section it states that either the industrial or residential soil values will be considered, as taken from the USEPA Region III risk-based concentration tables. Region IV only allows the more protective screen of the residential soil values. Also, under the headings of surface soil, subsurface soil, surface water, and sediments an additional appropriate screening would be: If the frequency of detection is less than 5 percent and the analyte is not a COPC in any other media, the analyte is excluded.

There are several locations which are in wetland areas and which are tidally influenced. For those areas, residential use of the property is not a foreseeable use. Therefore, the use of residential screening values may be overly conservative. The document will be revised to incorporate the language " If the frequency of detection is less than 5 percent and the analyte is not a COPC in any other media, the analyte is excluded."

2. Table B1-3

The exposure frequency for the site worker of one day a month, or 12 days/year, appears to be biased low for the RME case. One day/week or 52 days/year seems more appropriate.

The site worker which is being considered here is someone who periodically is present to mow grass or conduct general supervision. For many of the sites, there is not currently any landscaping which would be maintained on a regular basis. It appears that the exposure frequency should be assigned on a site-specific basis, and could possibly be based on information gathering from base personnel. The site worker referred to in the document is not someone who has a regular work assignment at the site.

3. Table B1-4

The exposure frequency for the site excavation worker of 30 days/year, appears to be biased low for the RME case. Sixty days/year seems more appropriate. Also, the surface area of 5,750 is a generic default value and inappropriate for the excavation worker who will most likely have head, arms, hands, torso, and lower legs exposed to the environment. Therefore, a surface area value of 17,550 would be more appropriate, based on Table 8-3, USEPA, 1992. As well, the soil ingestion rate for these individuals should be at 480 mg/day (USEPA,91).

Excavation workers may be dermally exposed to a greater extent than an typical adult in a residential scenario. However, the suggested skin surface area available for soil contact is not appropriate for the RME scenario. The suggested surface area, 17,550 cm², is the sum of the maximum reported surface areas for men's head, trunk, arms, hands, and lower legs from Table

**DRAFT SUPPLEMENTAL RFI/RI
WORKPLAN ADDENDUM
NAS Key West, Key West, Florida**

**Comments From the U.S. Environmental Protection
Agency, Region IV - Office of Health Assessment**

8-3 of USEPA's 1992 dermal exposure assessment guidance. This surface area represents roughly 77% of the 95th percentile total body surface area for men. This value appears to be unreasonably high. In addition, in the RME exposure scenario, according to Risk Assessment Guidance for Superfund (USEPA, 1989) the median (50th percentile values) body surface area should be used for the RME skin/soil contact scenario. The reasonable worst case scenario for skin/soil contact presented in the USEPA 1992 dermal exposure assessment guidance includes the skin surface area of 5,300 cm² for adult head, hands, forearm, and lower leg. The value of 5,300 cm² represents a mean surface area value, not a maximum.

If it is assumed that in addition to the head, arms, hands and lower legs, one-half of the excavation worker's trunk were exposed, then surface area exposed (head, one half of trunk, arms, hands, and lower legs) would represent 57.9% of the total body surface area (head, 7.8%, trunk, 18%, arms, 14.1%, hands, 5.2%, lower legs, 12.8% or 57.9% of total body surface area as reported in table 4-2 of the Exposure Factors Handbook). Since the median (50th percentile value) adult male body surface area is 1.94 m², then the surface area potentially exposed would be 57.9% x 1.94 m² = 1.123 m² or 11230 cm². It is recommended this value be applied for excavation activities throughout the year in Key West, where year-round temperatures would make it possible for workers to be so exposed.

The soil ingestion rate of 480 mg/day may be an outdated value, given information which has been presented in the USEPA 1992 dermal exposure assessment guidance. That value, which was recommended in the USEPA 1991 Standard Default exposure Factors guidance (OSWER Directive 9285.6-03), comes from Hawley's 1985 paper (Risk Analysis, 5(4):28. In that paper Hawley assumed that the soil adherence rate was 4 mg/cm². However, the 1992 USEPA dermal exposure assessment guidance indicates that a range from 0.2 mg/cm² to 1.5 mg/cm² for hands appears to be possible for soil adherence rates. That guidance also states that these values are taken from hand measurements only, and therefore may overestimate adherence rate for overall skin surfaces. Therefore, 0.2 mg/cm² was recommended as an average adherence rate for all exposed skin, and 1.0 mg/cm² was recommended as a reasonable upper value for soil adherence for all skin exposed. Therefore, replacing Hawley's estimate for soil adherence (4 mg/cm²) with the more recent USEPA recommended reasonable upper value (1.0 mg/cm²), and using Hawley's other assumptions, the daily soil ingestion rate is roughly $1/4 \times 480 = 120$ mg/day.

4. Table B1-6, and B1-8

The exposure frequency given for the residents should be 350 instead of 100 days/year.

Tables B1-6 and B1-8 represent exposure assumptions for potential residential exposures to sediment and surface water respectively. While the RME exposure frequency for residential exposure to soils in warm/hot climates is 350 days per year, the use of the same exposure frequency for potential

**DRAFT SUPPLEMENTAL RFI/RI
WORKPLAN ADDENDUM
NAS Key West, Key West, Florida**

**Comments From the U.S. Environmental Protection
Agency, Region IV - Office of Health Assessment**

exposures to sediment and surface water may not be reasonable. The 100 days per year which has been proposed by the Navy represents exposure to sediments and surface water two days per week throughout the year (with two weeks of vacation away from home assumed). This exposure frequency is considered reasonable and health protective for the wetland and shallow stream environments which are present at most of these sites.

**DRAFT SUPPLEMENTAL RFI/RI WORKPLAN
NAS Key West, Key West, Florida**

**Response to Comments From the Florida Department of
Environmental Protection**

General Comments

1. It is important to note that adequate project management be employed prior to the initiation of any work at NAS Key West. In many cases, the Remedial Action Contractor (RAC) will be removing soil, backfilling soil pits with clean backfill, and taking post-excavation samples to confirm that most, if not all, source material has been abated. As seen from the workplans submitted to the Department, the possibility that assessment work will be performed at some of the sites that had removal actions performed does exist and in our opinion, has not been adequately addressed in this Document. For instance, at SWMU 1, how does the assessment work fit with the post-removal samples that the RAC contractor will obtain? The Department recommends that this issue be further explained in the text and addressed at the August 14-15, 1995 meeting.

A RAM has been developed to clarify coordination of all tasks among the various contractors. This RAM and further explanation will be added to the text of the RFI/RI workplan.

2. The proposed project schedule of Page 5-4 indicates that a Draft RI/RFI will be submitted to the Department for review in October 1996. Following the schedule proposed with current CERCLA and RCRA time frames, RODs should be tentatively planned for 1998. It is the Department's opinion that the IR schedules presented for review and concurrence are excessive since the sources of contamination at most of the sites will be effectively removed by the 1995 removal actions. The Department recommends that the current IR schedule of events at NAS Key West be developed with the participation of both EPA and FDEP.

The schedule will be revised in consultation with FDEP and USEPA.

IR-1 Truman Annex Open Disposal Area

3. Page 3-25: the justification to install five additional water table monitoring wells at this site is not clearly understood. For instance, five of the six proposed wells are upgradient of the site and away from the Atlantic Ocean: thus, our concern with the proposed course of action. Note, since the Department is tasked with protecting surface waters, groundwater should be monitored as close to the ocean as possible. Also, only one additional water monitoring well was agreed to in our April 17, 1995 letter.

Only two wells will be installed as per discussions in the meeting held on August 14-15, 1995.

4. Page 3-25: wouldn't resampling the IT wells via a low-flow pump or quiescent sampling technique accomplish the same groundwater objective as proposed in this plan?

Yes. All existing wells will be sampled using a low-flow sampling technique.

**DRAFT SUPPLEMENTAL RFI/RI WORKPLAN
NAS Key West, Key West, Florida**

**Response to Comments From the Florida Department of
Environmental Protection**

5. Page 3-31: since site IR-1 is not part of the RCRA permit or program, sampling groundwater for Appendix IX is neither required nor necessary. Sampling groundwater for PCBs/Pesticides via EPA Method 608 will suffice. Remove the reference to Appendix IX analysis. Also, explain the need to sample groundwater for cyanide since the text and tables imply it was not detected in previous sampling events.

Reference to Appendix IX analysis will be removed. Cyanide will be deleted from the analyte list. EPA Methods 602/608/610 and Target Analyte List (TAL) metals will be used instead of Appendix IX.

6. Page 3-35: please indicate the depth of the surface soil samples.

Surface soils will be collected from 0 to 1-foot below ground surface.

IR-3 Truman Annex DDT Mixing Area

7. Figure 3-24: the proposed work for soil assessment closely resembles the course of action to be followed for post-excavation confirmatory sampling by Bechtel. Please explain this similarity.

Clarification regarding the Confirmation Sampling BEI will conduct following the IRAs will be provided.

8. Page 3-25: the justification to install six additional water table monitoring wells at this site is not clearly understood since a review of the data indicates that Departmental standards and guidance for pesticides were barely exceeded throughout all of the sampling events. Also, please justify the locations of the described wells.

After the IRA, the final configuration of wells at this site will be one up- and three down-gradient. Their final locations will be defined in a Technical Memorandum submitted to FDEP and USEPA for concurrence.

9. Page 3-35: the text indicates that "groundwater will be sampled at eight locations" yet only six wells are shown in Figure 3-25. Explain this difference.

The text and figure will be corrected so that they are consistent.

10. Page 3-35: since site IR-3 is not part of the RCRA permit or program, sampling groundwater for Appendix IX is neither required nor necessary. Sampling groundwater for PCBs/Pesticides via EPA Method 608 will suffice. Remove the reference to Appendix IX analysis. Also, explain the need to sample groundwater for cyanide since the text and tables imply it was not detected in previous sampling events.

Reference to Appendix IX analysis will be removed. Cyanide will be deleted from the analyte list. EPA Methods 602/608/610 and Target Analyte List (TAL) metals will be used instead of Appendix IX.

**DRAFT SUPPLEMENTAL RFI/RI WORKPLAN
NAS Key West, Key West, Florida**

**Response to Comments From the Florida Department of
Environmental Protection**

IR-3 Truman Annex DDT Mixing Area

11. The department believes that once the source of contamination has been removed and given the small aerial extent of contamination at this site, it presents itself as a good opportunity to be moved to the ROD stage in the shortest amount of time. As such, a formal and extensive Human Health and Ecological Risk Baseline and Feasibility Study will not be needed. Further course of actions at this site should be accorded by all parties during the August 15-16, 1995 meeting.

Following completion of the IRA and Confirmation Sampling, discussion will be held with FDEP and USEPA regarding the possible development of a Record of Decision (ROD) for this site.

IR-7 Fleming Key North Landfill

12. Page 3-38: since site IR-7 is not part of the RCRA permit or program, sampling sediments, surface, and groundwater for Appendix IX is neither required nor necessary. Sampling groundwater for PCBs/Pesticides via EPA Method 608 will suffice. Likewise, sampling sediments for EPA Method 8080A will suffice. Remove the reference to Appendix IX analysis. Also, explain the need to sample groundwater and sediment for cyanide since the text and tables imply it was not detected in previous sampling events.

Reference to Appendix IX analysis will be removed. Cyanide will be deleted from the analyte list. Groundwater will be sampled for PCBs/pesticides via EPA Method 608 only. Sediments will be sampled for EPA Method 8080A.

IR-8 Fleming Key South Landfill

13. Page 3-34: since only five soil samples have been obtained at this site since 1987, we stated in our April 17, 1995 letter, and the Navy agreed at the March 14, 1995 meeting, that Southdiv should consider installing four additional shallow soil samples near previous sampling locations (if they could be located). Provide justification for not following a previously agreed upon course of action.

The four shallow soils samples previously agreed to will be collected as close as possible to previous sample locations.

14. Page 3-38: since site IR-8 is not part of the RCRA permit or program, sampling sediments, surface, and groundwater for Appendix IX is neither required nor necessary. Sampling groundwater for PCBs/Pesticides via EPA Method 608 will suffice. Likewise, sampling sediments for EPA Method 8080A will suffice. Remove the reference to Appendix IX analysis. Also, explain the need to sample all media for cyanide since the text and tables imply it was not detected in previous sampling events.

Reference to Appendix IX analysis will be removed. Cyanide will be deleted from the analyte list. Groundwater will be sampled for PCBs/pesticides via EPA Method 608 only. Sediments will be sampled for EPA Method 8080A.

**DRAFT SUPPLEMENTAL RFI/RI WORKPLAN
NAS Key West, Key West, Florida**

**Response to Comments From the Florida Department of
Environmental Protection**

15. Re-title Table 3-11, it should be IR-8 not IR-7.

The table title will be corrected.

**DRAFT SUPPLEMENTAL RCRA FACILITY INVESTIGATION
REMEDIAL INVESTIGATIONS WORKPLAN AND SAMPLING ANALYSIS PLAN
and SOLID WASTE MANAGEMENT UNIT 9 ASSESSMENT REPORT
NAS Key West, Key West, Florida**

**Comments From the Florida Department of
Environmental Protection, Natural Resources Trustee**

I. General

Our only comments on the RFI Workplan concern the Ecological Risk Assessment (ERA) in Appendix A.

1. The ERA methodology should also include USEPA's draft Ecological Risk Assessment Guidance for Superfund: Process for designing and Conducting Ecological Risk Assessments (USEPA, 1994).

Although the USEPA guidance manual explicitly states "do not cite", the ERA methodology will include a reference to this document.

2. On page A-14, under the section for Selection of Literature-Derived Toxicity Benchmark Values - Aquatic Receptors, and on page A-15, under the Risk Characterization section, the Florida Sediment Quality Assessment Guidelines should be used.

The Florida Sediment Quality Assessment Guidelines will be included in this section.

Sampling Analysis Plan

1. Section 2.2.6.2 (Rare Endangered, and Threatened Species), p.2-11, makes reference to "trustees." If this is referring to the designated natural resource trustees (NRT), then the specific trustee agencies as designated by the President of the U.S. are the Departments of Interior, Commerce, Agriculture, Energy, and Defense. The designated state NRT agency is the Florida Department of Environmental Protection (FDEP). The Florida Department of Natural Resources is now the FDEP.

Agreed.

2. Under Section 2.2.6.3 (Biological and Toxicological Sampling), on p. 2-18 the document states whole sediment toxicity testing on an amphipod (*Ampelisca abdita*). We do not recommend using this organism unless it is an acute toxicity test in highly contaminated sediment. These species are highly tolerant, and if a chronic toxicity test is performed, there is little likelihood of response.

Rather than using the amphipod (*Ampelisca abdita*) toxicity test to evaluate sediment toxicity, the Navy will consider using a chronic sea urchin toxicity test.

II. SWMU Assessment Report, SWMU 9

Our only comment is that Figure 3, on page 10 needs to show the location of monitoring wells MW-14, MW-15, MW-23, and MW-24.

These wells will be shown on Figure 3.

**DRAFT CORRECTIVE MEASURES STUDY WORKPLAN
NAS Key West, Key West, Florida**

**Response to Comments From U.S. Environmental Protection
Agency, Region IV**

1. If a CMS is required, EPA will determine the need to conduct one.

Comment noted.

2. For a site-specific CMS, focus on 1 or 2 alternatives. Make them short and concise.

Comment noted.

3. The CMS workplan needs to be sealed by a Florida Professional Engineer.

The final CMS workplan will be sealed by a P.E.

4. Reference the schedule in the Corrective Action Management Plan (CAMP) in the CMS workplan.

The CAMP schedule will be referenced.

5. Page 2-2, Section 2.2 - Add State of Florida cleanup goals for military sites as a screening criteria.

The Florida Cleanup goals for military sites will be added as a screening criteria.

6. Page 2-3, Section 2.6 - Add Florida Administrative Code (FAC) 770 criteria for corrective action objectives for soils.

The FAC 770 criteria will be added.

7. Page 2-24, Section 2.6

a. Build in flexibility to the schedule and reference schedule in CAMP.

Comment noted.

b. Add a line item to the CAMP schedule for Treatability Studies in case they are needed.

When the CAMP schedule is revised, treatability studies will be added.

8. For the CMS, send out correction pages, new covers and spines, and page sealed by a P.E.

When all final changes are completed, correction pages, revised covers and spines, and a page sealed by a P.E. will be sent out.