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NAS CORPUS CHRISTI  
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MEETING MINUTES FOR QUALITY ASSURANCE PROJECT PLAN MEETING 15  
NOVEMBER 2007 NAS CORPUS CHRISTI TX  
11/15/2007  
U S NAVY

## NAS CORPUS CHRISTI UFP QAPP MEETING MINUTES

November 15, 2007

Building 19

NAS Corpus Christi, Texas

### Introductions

- The meeting started at 9:15 a.m. with introductions and personal updates.

### Attendees

Helen Lockard – NAVFAC SE

Ken Grim – TtNUS

Ralph Basinski – TtNUS

Larry Basilio – TtNUS

Rich Mayer – USEPA

LTJG Mike Mercadel – NASCC Air Ops

LCDR Jason Greene – NASCC Public Safety/Security

### Site Walk

- A site walk of the various munitions restoration program (MRP) sites at Naval Air Station (NAS) Corpus Christi (NAS CC) was conducted from approximately 7:15 am to 9:00 am to familiarize personnel with the areas involved. Persons attending included Helen Lockard, Rich Mayer, Ken Grim, Ralph Basinski, and Larry Basilio.
- Several of the areas had high brush and waist high vegetation. Helen Lockard stated she would check with NAS CC on getting the grass cut prior to field activities.

### Meeting with NASCC Personnel

- The meeting began with representatives from Air Ops (LTJG Mike Mercadel) and Public Safety (LCDR Jason Greene) present.
- Helen Lockard gave a description of the activities to be conducted and reasons why the activities were required. The Navy has several inactive and former ranges at the base from former training operations. To Date, the Navy has investigated the chemical releases at NAS CC and other sites, but the Navy has put off the munitions range investigations until recent years. Therefore, the Navy is currently investigating these inactive and former ranges to determine if there is a release to the environment and, if so, how the contaminants are distributed.
- Today's discussion focuses on just the NAS CC site. There are other munitions investigations being conducted at Naval Air Landing Field (NALF) Cabaniss and Waldron, but they are not part of this discussion.
- After Helen completed outlining the areas to be investigated, LTJG Mercadel indicated that an escort would be required due to the activities proximity to runways/taxiways. Specifically, if the team gets within 30 to 40 feet of the runway, they need to notify the base so that the field activities can be coordinated with the tower.
- Because the investigations will be conducted on an active installation, LTJG Mercadel indicated that Air Ops would provide a full time escort for the field crew. Additionally, a room with power in Hanger 58 is available for use by the field crew if needed. Ralph and Larry agreed that this would be very helpful to the crews conducting the investigation.
- Helen asked about the clearing of the area. LCDR Greene stated that the maintenance contract is currently being re-negotiated. They can let NAVFAC SE know when the area maintenance happens if necessary.
- The clearing of the areas away from the runways would probably involve use of a chain-saw and weed-whacker due to the dense vegetation in the area. LCDR Greene stated that TtNUS would

need to collect the material and coordinate its disposal with the base. Air Ops would check with their management on the clearing vegetation and debris.

- LCDR Greene stated that Security will need to know the names and information of all persons who will be onsite. Larry Basilio indicated it would mainly be TtNUS personnel with possibly a DPT subcontract crew. Because the work will last several weeks, long term contractor badges for access to certain areas can be issued by Security.
- Ralph Basinski asked about working over weekends? LTJG Mercadel stated that there are support staff on the base even on the weekend.
- Ken Grim stated that TtNUS can provide the drawings of the area of activity to LCDR Greene and LTJG Mercadel electronically. This will assist Air Ops and Public Safety describe the situation to their management.
- Send an extra copy of the work plan to the installation for the Safety Office.
- LTJG Mike Mercadel and LCDR Jason Greene left after the first break since the remainder of the meeting was to discuss the details of the investigation activities.

#### **DQO Meeting**

- Ralph Basinski stated that the Data Quality Objective (DQO) process, as promulgated by the Navy, includes preparing a Uniform Federal Policy (UFP) Quality Assurance Project Plan (QAPP). This often involves viewing the site, getting together to discuss the conceptual site model, and lining out the scope is to investigate the former firing ranges. The UFP QAPP has a series of worksheets that replaces the work plans, QAPP, and outlines both field and decision procedures.
- The UFP QAPP is a controlled document. Therefore, updates and edits have a designated distribution list.
- Ralph Basinski prepared draft versions of Worksheet 11, Project Quality Objectives/Systematic Planning Process Statements for each of the sites. These were handed out to attendees.
- Two of the sites were selected for discussion as they were representative of all the sites at NASCC. The two sites were the Air Blast/Synchronized Gun (AB/Syn) Range and the Skeet Range. Attached are copies of the Worksheets for the two sites as developed during the meeting. These will be refined and sent out to the Team for review.

#### **AB/Syn Range**

- Small caliber arms were used. No unexploded ordnance (UXO) is present.
- Metals are the contaminants of concern.
- The plan is to have "real time" data sharing with Team. Regular meetings (weekly) will be held to discuss results and path forward.
- Visible chunks of lead would be removed from the sample prior to field XRF analysis.
- A grid pattern for sampling would be set up inside the red zone as defined in the Preliminary Assessment (PA).
- Soil samples would be collected from 0-2 ft below ground surface (bgs).
- If elevated lead XRF readings are detected in the 0-2 ft sample and second sample will be collected at 3-4 ft.

#### **Skeet Range**

- Small caliber arms were used. No UXO is present.
- Metals and polynuclear aromatic hydrocarbons (PAH) are the contaminants of concern.
- Samples for PAH analysis would be collected from the area of highest skeet fallout potential.
- Soil samples would be collected from 0-1 ft bgs.
- If elevated lead XRF readings are detected in the 0-1 ft sample and second sample will be collected at 2-3 ft.

**SAP Worksheet #11.3**  
**Project Quality Objectives/Systematic Planning Process**  
**Statements for Air Blast & Synchronized Gun Range**

**PROBLEM DEFINITION**

The following is the summary of the problem definition

- MC consisting of metals (primarily lead) may be present in soils.
- If present in surface soils, MC may migrate into subsurface soils and into groundwater.
- The Conceptual Site Model (CSM) shows that potentially complete pathways exist between human and ecological receptors both under current and potential future land uses.
- If present in significant concentrations in soils, groundwater, surface water or sediments, MC could pose significant risks to human and ecological receptors.

**IDENTIFY THE GOAL OF THE STUDY (STEP 2)**

The primary goal of the SI for the Air Blast & Synchronized Gun Range is to obtain environmental data for use in making the following decisions:

- Determine whether MC is present within the study areas in quantities or concentrations that require proceeding to a remedial investigation and feasibility study (RI/FS). If they are, proceed to the RI/FS, otherwise, do not investigate further and consider proceeding to a no further action (NFA).
- Determine whether adequate data is available to proceed directly to corrective measures if MC is present in quantities or concentrations presenting excess risk. If adequate data is available than considering proceeding to a corrective action.
- Determine whether MC or other contaminants are present within the study area in quantities or concentrations that require an immediate response. If such quantities or concentration are present, then initiate an appropriate response. If MCs or other contaminant are present, then take no immediate action.

The secondary goals of the Air Blast & Synchronized Gun Range SI are to collect information for the following:

- Collect information to improve the cost-to-complete (CTC) estimate.
- Complete the site prioritization protocol.

**IDENTIFY INFORMATION INPUTS (STEP 3)**

Data and information that will be required to make the decisions include the following:

- Information from site-specific historical documents.
- Concentrations in surface soils of metals (lead, zinc, antimony, and copper) analyzed using SW 846 Method 6010 to determine if metals are present in soils at concentrations above background and screening levels
- Concentrations in subsurface soils of metals (lead, zinc, antimony, and copper) analyzed using SW 846 Method 6010 to determine if metals are present in soils at concentrations above background and screening levels
- Concentrations in sediments of runoff ditches of metals (lead, zinc, antimony, and copper) analyzed using SW 846 Method 6010 to determine if metals are present in soils at concentrations above background and screening levels
- Screening levels for metals (human health exposure and ecological)
- Method detection limits meeting screen levels.

#### **DEFINE BOUNDARIES OF THE STUDY (STEP 4)**

- The horizontal boundary is defined as the area where activities most likely took place. (see figure XX of sampling locations)
- The vertical boundary of this investigation will be limited to the ground surface to approximately 2 feet below grade. If elevated concentrations are detected by XRF (>350) in the top 2 feet, a second sample from the 4 foot range will be obtained if possible with soil conditions.
- If visible lead shot is concentrated in an area (based on field observations), a second sample from 4 foot range will be obtained if possible with soil conditions.
- The environmental media investigated include surface soils and surface sediments. Subsurface soils and groundwater impact will be determined during follow-on investigations.
- Subsurface soils (greater than two feet deep) may be required to follow contaminant concentrations detected at depth.

#### **DEVELOP THE ANALYTIC APPROACH (STEP 5)**

##### **MC and Potential Chemical Contaminants**

- If MC (metals) or other contaminants are detected in soils and sediments at concentrations below screening levels, then consider proceeding to NFA.
- If MC (metals) or other contaminants are observed in soils at concentrations above screening values at the horizontal or vertical boundaries of sampling, then proceed to an RI or corrective measures and expand the study area.

#### **SPECIFY PERFORMANCE OR ACCEPTANCE CRITERIA (STEP 6)**

- Because this stage is to an SI, and considering the default state criteria of 5% false positives, a minimum of 20 samples should be obtained from the air blast and machine gun range.
- The performance criteria (correlation coefficient) for correlation of the XRF data with fixed-base laboratory data for lead are expected to be 0.65.
- Performance criteria for new analytical data are normal quality assurance (NQA) limits and meeting pre-established detection limits for MC.

#### **DEVELOP THE PLAN FOR OBTAINING DATA (STEP 7)**

The proposed SI field investigation program for the Air Blast & Synchronized Gun Range is presented as Figure 2.

##### **MC Sample Collections and Analysis**

- Soil
  - Surface soil samples (50) will be collected over an equally spaced grid interval at the 0 to 2 foot level. This grid should cover the former berm area, the firing area (within the red rectangle on Figure 5.3-2 of the PA)
  - Subsurface soil samples will be collected from 2 to a maximum of 5 feet. These samples will only be collected if screening levels (350 on the XRF) are exceeded in surface soil samples.
- Soil samples will be collected via hand augers
- Sediment

- o Sediment samples (3 to 5) will be collected from areas of surface water flow.
- Analysis
  - o All soil samples / sediment samples will be analyzed for metals (primarily lead but also zinc, antimony, and copper) by XRF.
  - o 20 percent of the samples will be analyzed by SW-846 methods by a fixed-base laboratory for lead, zinc, antimony, and copper
  - o If XRF detections are between 350 to 650, the sample will be analyzed by a fixed-based lab to verify concentrations (State criteria of 500).
- Have a weekly conference call with the team on Tues morning to discuss sampling results and decisions for the past week.

**SAP Worksheet #11.6**  
**Project Quality Objectives/Systematic Planning Process**  
**Statements for Skeet Range**

**PROBLEM DEFINITION**

The following is the summary of the problem definition

- MC consisting of metals (primarily lead) and PAHs may be present in soils.
- If present in surface soils, MC may migrate into subsurface soils and into groundwater.
- The Conceptual Site Model (CSM) shows that potentially complete pathways exist between human and ecological receptors both under current and potential future land uses.
- If present in significant concentrations in soils, groundwater, surface water or sediments, MC could pose significant risks to human and ecological receptors.

**IDENTIFY THE GOAL OF THE STUDY (STEP 2)**

The primary goal of the SI for the Skeet Range is to obtain environmental data for use in making the following decisions:

- Determine whether MC is present within the study areas in quantities or concentrations that require proceeding to a remedial investigation and feasibility study (RI/FS). If they are, proceed to the RI/FS, otherwise, do not investigate further and consider proceeding to a no further action (NFA).
- Determine whether adequate data is available to proceed directly to corrective measures if MC is present in quantities or concentrations presenting excess risk. If adequate data is available than considering proceeding to a corrective action.
- Determine whether MC or other contaminants are present within the study area in quantities or concentrations that require an immediate response. If such quantities or concentration are present, then initiate an appropriate response. If MCs or other contaminant are present, then take no immediate action.

The secondary goals of the Skeet Range SI are to collect information for the following:

- Collect information to improve the cost-to-complete (CTC) estimate.
- Complete the site prioritization protocol.

**IDENTIFY INFORMATION INPUTS (STEP 3)**

Data and information that will be required to make the decisions include the following:

- Information from site-specific historical documents.
- Concentrations in surface soils of metals (lead, copper, zinc, antimony, and copper) analyzed using SW 846 Method 6010 and 8310 to determine if metals or PAHs are present in soils at concentrations above background and screening levels.
- Concentrations in subsurface soils of metals (lead, copper, zinc, antimony, and copper) analyzed using SW 846 Method 6010 and 8310 to determine if metals are present in soils at concentrations above background and screening levels.
- Concentrations in sediments of runoff ditches, if present, of metals (lead, copper, zinc, antimony, and copper) analyzed using SW 846 Method 6010 and 8310 to determine if metals are present in soils at concentrations above background and screening levels.
- Screening levels for metals and PAHs
- Method detection limits meeting screen levels.

#### **DEFINE BOUNDARIES OF THE STUDY (STEP 4)**

- The horizontal boundary is defined as the area where activities most likely took place. (see figure XX of sampling locations)
- The vertical boundary of this investigation will be limited to the ground surface to approximately 1 feet below grade. If elevated concentrations are detected by XRF (>350) in the top 1 feet, a second sample from the 3 foot range will be obtained if possible with soil conditions.
- If visible lead shot is concentrated in an area (based on field observations), a second sample from the 3 foot range will be obtained if possible with soil conditions.
- The environmental media investigated include surface soils and surface sediments. Subsurface soils and groundwater impact will be determined during follow-on investigations.
- Subsurface soils (greater than two feet deep) may be required to follow contaminant concentrations detected at depth.
- Soil samples will be taken for lab analysis of PAHs from the area of the sling house at the skeet range. The sling house locations will be determined from the historical photographs.

#### **DEVELOP THE ANALYTIC APPROACH (STEP 5)**

##### **MC and Potential Chemical Contaminants**

- If MC (metals) or PAHs are detected in soils and sediments at concentrations below screening levels, then consider proceeding to NFA.
- If MC (metals) or PAHs are observed in soils at concentrations above screening values at the horizontal or vertical boundaries of sampling, then proceed to an RI or corrective measures and expand the study area.
- If MC (metals) or PAHs are detected in soils at concentrations below screening values from samples collected at the depth interval from surface to two feet, then consider proceeding to NFA.

#### **SPECIFY PERFORMANCE OR ACCEPTANCE CRITERIA (STEP 6)**

- Because this stage is to an SI, and considering the default state criteria of 5% false positives, a minimum of 20 samples should be obtained from the air blast and machine gun range.
- The performance criteria (correlation coefficient) for correlation of the XRF data with fixed-base laboratory data for lead are expected to be 0.65.
- Performance criteria for new analytical data are normal quality assurance (NQA) limits and meeting pre-established detection limits for MC.

#### **DEVELOP THE PLAN FOR OBTAINING DATA (STEP 7)**

The proposed SI field investigation program for the Skeet Range is presented as Figure 2.

##### **MC Sample Collections and Analysis**

- Soil
  - Surface soil samples (50) will be collected over an weighted grid interval focused on the expected fall-out area and broadening away from the stations. These will be sampled at the 0 to 1 foot level. This grid should cover the former berm area, the firing area (within the red rectangle on Figure 5.3-2 of the PA)

- Subsurface soil samples will be collected from 1 to a maximum of 5 feet. These samples will only be collected if screening levels (350 on the XRF) are exceeded in surface soil samples.
- Soil samples will be collected via hand augurs.
- Sediment
  - Sediment samples (3 to 5) will be collected from areas of surface water flow, if present.
- Analysis
  - All soil samples / sediment samples will be analyzed for metals (primarily lead but also zinc, antimony, and copper) by XRF.
  - The PAH samples will be collected in the area of 1) expected fallout and 2) high lead concentrations. If no high lead concentrations, the PAH samples will be taken from the area of expected fallout.
  - 20 percent of the samples will be analyzed by SW-846 methods by a fixed-base laboratory for lead, zinc, antimony, and copper
  - If XRF detections are between 350 to 650, the sample will be analyzed by a fixed-based lab to verify concentrations (State criteria of 500).
- Have a weekly conference call with the team on Tues morning to discuss sampling results and decisions for the past week.

**NAS Corpus Christi**  
~~Tier I Partnering Team Sign-In Sheet~~  
*NAVP Kickoff Meeting*  
 NAS Corpus Christi, Corpus Christi, Texas  
 November 14, 2007 - 8:00 am  
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14.						