Ms. Carlotta Cellucci  
Remedial Project Manager  
Naval Facilities Engineering Command Northwest  
1101 Tautog Circle  
Silverdale, WA 98315-1101

SUBJECT: FINAL TECHNICAL MEMORANDUM: 2018 NAVAL BASE KITSAP KEYPORT INSTITUTIONAL CONTROLS INSPECTION RESULTS


Dear Ms. Cellucci:

This technical memorandum has been prepared by Sealaska Environmental Services, LLC (Sealaska) to document the findings of the 2018 institutional controls (IC) inspections conducted at Naval Base Kitsap (NBK) Keyport. The inspections were completed per the Institutional Controls Plan, Operable Unit 1, Operable Unit 2, and Areas 22 and 7 (Navy 2017) and included Operable Unit (OU) 1 Area 1, OU 2 Area 2 and Area 8, Area 22, and Area 7. Figure 1 showing all IC site locations is provided as Attachment A.

The inspection process included:

- Visually inspecting the sites with ICs to ensure implemented controls remain protective;
- Identifying current land use and users; and
- Interviewing Keyport personnel to ensure administrative controls are being appropriately implemented.

Additional information on the IC inspection process can be found in the 2017 IC Plan (Navy 2017).

IC INSPECTION RESULTS

The following subsections discuss the results of the IC inspections conducted at NBK Keyport. Visual inspection of each of the IC sites was conducted on August 14, 2018. Interviews with NBK Keyport personal and Naval Undersea Warfare Center (NUWC) Division Keyport personnel (the primary tenant of NBK Keyport) were conducted via email and included the following individuals:
• Lee Anne Fowler – NUWC Division Keyport, Code 1021 Facilities: construction, excavation permitting, administrative controls.

• Ben Keasler – Public Works Department Naval Facilities Engineering Command (NAVFAC) Northwest, Kitsap Environmental Project Liaison: construction, excavation permitting, administrative controls.

• Gary Simmons – NUWC Division Keyport, Environmental Engineer: drinking water well installation.

• Kevin Glover – NUWC Division Keyport, Security Officer: access and site security.

Completed IC inspection checklists are provided as Attachment B.

**OU 1 Area 1**

OU 1 Area 1, the former Installation landfill (see Figure 1, Attachment A), is covered by asphalt- and gravel-surfaced parking areas, two phytoremediation plantations, equipment and material laydown areas, several storage structures, a motorcycle training area, a marsh system and marsh pond, tide flats, vegetated areas, and nature trails. Land use is primarily light industrial and open space, consistent with past inspections.

Administrative procedures are in place to control digging at OU 1 Area 1, and have been followed. Signs of past excavation activities were observed, but based on the results of the interviews conducted, all excavations was adequately permitted. No excavation or construction was completed in or around the marsh area.

No new drinking water wells have been installed on Navy property within 1,000 feet of the landfill. Since the 2017 inspection, the only new wells were installed to support remedial investigation activities.

The asphalt surface covering the former landfill at OU 1 Area 1 is intact and does not currently appear to require major repairs.

Access controls are maintained through limiting installation access to authorized personnel with appropriate badging at the main installation access gate. No unauthorized personnel are reported to have gained access to the installation.

**OU 2 Area 2**

OU 2 Area 2, the Van Meter Road Spill/Drum Storage Area, include a recycling facility/material storage center, asphalt-covered laydown/storage areas, undeveloped areas, and an adjacent wetland area. The land use at OU 2 Area 2 remains light industrial, consistent with past inspections.

No signs of current or past excavation were observed in the area of OU 2 Area 2 covered by ICs. Based on the interviews completed, administrative controls have reportedly been followed.
No installation of drinking water wells has occurred at Area 2 over the past year.

Installation access controls have been maintained and no unauthorized personnel are reported to have gained access to the installation. Site access is also controlled by a locked gate maintained by Fleet Logistics Center (FLC) an NKB Keyport tenant who operates the recycling and storage facility.

**OU 2 Area 8**

OU 2 Area 8, the former Plating Shop Waste/Oil Spill Area consists of an asphalt-covered parking area surrounded by light industrial activities to the north and west, with an adjacent beach to the east and south. Land use at OU 8 Area 8 remains consistent with past inspections.

No indications of current or recent excavation was observed at the site.

No drinking water wells have been installed at the site in the past year.

Installation access controls has been maintained. No unauthorized personnel are reported to have gained access to the installation.

No residential land uses were observed in OU 2 Area 8.

**Area 22**

Land use in Area 22, the former landfill extension area remains light industrial, consistent with past inspections. Current land uses include a hazardous waste handling and storage facility, other light industrial operations, and asphalt-covered parking areas.

There were indications of recent excavations along Bradley Road and near the intersection of 4th and A Street. These excavations were associated with the replacement of the installation water mains and appear to have been adequately controlled through the dig permit process.

No drinking water wells have been installed at the site in the past year.

Installation access controls has been maintained and no unauthorized personnel are reported to have gained access to the installation.

**Area 7**

Area 7, the peninsula fill area, is composed of light industrial facilities, asphalt-covered parking areas, and boat ramp/dock. Light industrial land uses remains consistent with past inspections.

A small excavation was observed on the east side of Building 489. There were also concrete patches around/near Building 489. Based on the interviews conducted with Base personnel, all excavation was properly permitted.

No drinking water wells have been installed within Area 7 during the past year.
Installation access controls have been maintained; and no unauthorized personnel are reported to have gained access to the installation.

**COMPLETED CORRECTIVE ACTION**

No corrective action was identified or completed in 2018.

**CONCLUSIONS AND RECOMMENDATIONS**

ICs have been adequately implemented, have prevented exposure to residual contamination, and have controlled, limited or prohibited activities that may interfere with the integrity of the completed remedial actions.

IC inspections of OU 1 Area 1, OU 2 Areas 2 and Area 8, Area 7 and Area 22 should continue as described in the 2017 IC Plan until ICs are removed from these areas.

**REFERENCES**


Please contact me with any comments or questions on this submittal at (360) 626-3991.

Sincerely,

Scott Elkind, PE  
Task Order Manager  
Sealaska Environmental Services, LLC

cc: Mahbub Alam, Ecology  
    Harry Craig, EPA  
    Denice Taylor, Suquamish Tribe

Attachments:

- ATTACHMENT A  FIGURES
- ATTACHMENT B  IC INSPECTION FORMS
ATTACHMENT A

FIGURES
Note:
ATTACHMENT B
IC INSPECTION FORMS
Operable Unit 1, Area 1 Former Landfill

Inspected by: **Cara Alferness, Sealaska Environmental Services LLC**

Date of inspection: **8/14/18 – 8/28/18, 9/5/18, 9/11/18**

**Land uses:** The flats land staged area outside boundary of Keyport Facility, parking, monitoring wells, paved parking, lots, motorcyclists training equipment staging area, and solid storage ponds, two storage structures, covered recycling areas, unoccupied natural areas, marsh, grass, trees, gravel roadway, 3 bunkers (used for storage), nature trails, gravel parking (closed landfill asphalt covered), Keyport employees, government contractors, motorcycle trainers, recreational users, (employees), parking outside Keyport boundary once at day open to the public.

**Parking outside Keyport boundary once a day open to public users.**

<table>
<thead>
<tr>
<th>Inspector’s Checklist</th>
<th>Y/N NA/NC</th>
<th>Findings/Comments</th>
<th>Finding No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Has access to OU 1 been maintained (have security procedures for base entry served to maintain a restricted access)?</td>
<td><strong>Y</strong></td>
<td>Person Contacted: Kevin Glover, Security Director, email 9/18</td>
<td></td>
</tr>
<tr>
<td>Have drinking water wells been installed on Navy property within 1,000 feet of the landfill?</td>
<td><strong>N</strong></td>
<td>Person Contacted: Gary Simmons, NWRC Division Engineer, 9/18</td>
<td></td>
</tr>
<tr>
<td>For Area A, the land between the tide flats and the marsh, have water wells been installed, except those for monitoring or remedial action purposes?</td>
<td><strong>N</strong></td>
<td>Per visual inspection, none noted other than for remedial purposes</td>
<td></td>
</tr>
<tr>
<td>For Area B, the land between the tide flats and the Pass and ID Building parking lot, have water wells been installed, except those for monitoring or remedial action purposes?</td>
<td><strong>N</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>For Area C, the tide flats and adjacent shoreline owned by the Navy, have any activities occurred that could interfere with or compromise monitoring or remedial actions?</td>
<td><strong>N</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>For Area D, the former landfill, have water wells been installed, except those for monitoring or remedial action purposes?</td>
<td><strong>N</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>For Area D, the former landfill, are any employees permanently assigned to work in buildings within this area?</td>
<td><strong>N</strong></td>
<td>Per visual inspection, storage/laydown area only</td>
<td></td>
</tr>
<tr>
<td>For Area D, the former landfill, have there been any land use activities other than remedial activities, storage, parking, and facilities that involve only occasional occupancy by workers?</td>
<td><strong>N</strong></td>
<td>None observed.</td>
<td></td>
</tr>
<tr>
<td>For Area D, the former landfill, have activities that involve digging and construction within this area been controlled by the base excavation/dig permit procedure and other pertinent base instructions?</td>
<td><strong>Y</strong></td>
<td>Person Contacted: Lee Anne Fowler, Code 1051 Pakwah, email 8/28/18, Excavation Permit process in place throughout Keyport phase, and is effectively controlling excavations.</td>
<td></td>
</tr>
</tbody>
</table>

**Y = Yes  NA = not applicable  N = No  NC = no change**

Enclosure (1)
Operable Unit I, Area 1 Former Landfill

Inspected by: Cara Alferness, SES

Date of inspection: 8/14/18, 8/15/18, 9/5/18, 9/11/18

Land uses: see page 1 of 2 (1 of 6 whole checklist)

Land users: see page 1 of 2 (1 of 6 whole checklist)

<table>
<thead>
<tr>
<th>Inspector’s Checklist</th>
<th>Y/N NA/NC</th>
<th>Findings/Comments</th>
<th>Finding No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>For Area D, the former landfill, is there significant damage (e.g., cracking, seam separation, root damage, etc.) to asphalt surfaces that permits direct-contact exposure of people to underlying soils or that may significantly increase infiltration of surface water/stormwater?</td>
<td>N</td>
<td>Cracks and seams are deemed minuscule in content, similar to previous years’ inspection. No repairs warranted.</td>
<td></td>
</tr>
<tr>
<td>For Area D, the former landfill, if activities requiring an excavation/dig permit were conducted, were there any instances in which the permit requirements were not effective in maintaining the requirements of the Institutional Controls Plan?</td>
<td>N</td>
<td>Person Contacted: Lee Anne Fowler (Code 1021FACILITIES, email j盆地@bny) Findings: Excavation Permit in place, no excavations performed that were not effective in controls.</td>
<td></td>
</tr>
<tr>
<td>For Area E, the marsh pond and marsh system, have there been any new construction or maintenance activities that disturbed the wetlands adjacent to the landfill and resulted in an exposure hazard?</td>
<td>N</td>
<td>Person Contacted: Carla Celiucci, NAVFACWPM; and Lee Anne Fowler, email b盆地@bny, 8/9/18 Findings: No new; no activities that resulted in exposure hazards; No projects on marsh area requiring permit or cess.</td>
<td></td>
</tr>
<tr>
<td>For Area E, the marsh pond and marsh system, have there been any new construction or maintenance activities that interfere with or compromise the monitoring or remedial actions for the landfill?</td>
<td>N</td>
<td>Person Contacted: Carla Celiucci, NAVFACWPM; and Lee Anne Fowler, email b盆地@bny, 8/9/18 Findings: No activities that compromise monitoring or remediation at the landfill. No projects on marsh area would use the permit process if there were any.</td>
<td></td>
</tr>
</tbody>
</table>

I certify that the conditions of Operable Unit 1 on the inspection date were as reported above.

Cara Alferness

Date: 8/14/18, 9/5/18, 9/11/18

Enclosure (1)
Naval Base Kitsap Keyport  
Institutional Controls Inspection Checklist

Operable Unit 2 Area 2, Van Meter Road Spill/Drum Storage Area

Inspected by: Cara Alferness, Sealaska Environmental Services, LLC

Date of inspection: 8/14/18, 8/28/18, 9/5/18, 9/11/18

Land uses: Keyport Base Reuse & Recycling Materials Storage Center, Wetland and Natural area, dirt-covered roadway, asphalt roadway and parking.

Inspector's Checklist

<table>
<thead>
<tr>
<th>Has access to OU 2 Area 2 been maintained (have security procedures for base entry served to maintain a restricted access)?</th>
<th>Y/N NA/NC</th>
<th>Comments</th>
<th>Finding No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Y</td>
<td>Person Contacted: Lee Anne Fowler, Code 1081 Facilities, email 8/28/18. Findings: Excavation Permit in place, excavations are controlled by procedure.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>N</td>
<td>Person Contacted: Lee Anne Fowler, email 8/28/18. Findings: No, permits effective when/if needed.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Have water wells been installed at OU 2 Area 2, except those for monitoring or remedial actions?</th>
<th>Y/N NA/NC</th>
<th>Comments</th>
<th>Finding No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>N</td>
<td>None observed. Gary Simmons, NuWC Keyport Engineer, email 9/5/18. No new drinking water wells.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Has residential development occurred in OU 2 Area 2?</th>
<th>Y/N NA/NC</th>
<th>Comments</th>
<th>Finding No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>N</td>
<td>None observed.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

I certify that the conditions of Operable Unit 2 Area 2 on the inspection date were as reported above.

Cara Alferness  
Inspector  

8/28/18, 9/5/18, 9/11/18  
Date

Y = Yes  
N = No  
NA = not applicable  
NC = no change

Enclosure (1)
Operable Unit 2 Area 8, Plating Shop Waste/Oil Spill Area

Inspected by: [Name Redacted]

Date of inspection: 8/18/18, 8/20/18, 9/5/18, 9/11/18.

Land uses: Light industrial, occuped buildings, parking & streets (asphalt-covered)

Land users: Keyport employees and Base workers.

<table>
<thead>
<tr>
<th>Inspector's Checklist</th>
<th>Y/N NA/NC</th>
<th>Comments</th>
<th>Finding No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Has access to OU 2 Area 8 been maintained (have security procedures for base entry served to maintain a restricted access)?</td>
<td>Y</td>
<td>Person Contacted: Kevin Glover, Security Director, email: 9/11/18. Security measures in place. Restricted access maintained.</td>
<td></td>
</tr>
<tr>
<td>Have activities that involve digging and construction within OU 2 Area 8 been controlled by the base excavation/dig permit procedure and other pertinent base instructions?</td>
<td>Y</td>
<td>Person Contacted: Lee Anne Fowler, Code 1031 FACIL. Email: 8/30/18. Findings: excavation permit process used and in place; effective control of excavations.</td>
<td></td>
</tr>
<tr>
<td>If activities requiring an excavation/dig permit were conducted below the water table within OU 2 Area 8, were there any instances in which the permit requirements were not effective in maintaining the requirements of the Institutional Controls Plan?</td>
<td>N</td>
<td>Person Contacted: Lee Anne Fowler, email 8/30/18. Findings: No instances where permits not effective.</td>
<td></td>
</tr>
<tr>
<td>Have water wells been installed at OU 2 Area 8, except those for monitoring or remedial actions?</td>
<td>N</td>
<td>Gary Simmons, NUWC Keyport Engineer, email 9/5/18; No new drinking waterwells onsite.</td>
<td></td>
</tr>
<tr>
<td>Has residential development occurred in OU 2 Area 8?</td>
<td>N</td>
<td>None observed (visual inspection).</td>
<td></td>
</tr>
</tbody>
</table>

I certify that the conditions of Operable Unit 2 Area 8 on the inspection date were as reported above.

[Inspector's Name]

[Date]: 8/28/18, 9/5/18, 9/11/18

Y = Yes  NA = not applicable
N = No   NC = no change

Enclosure (1)
Naval Base Kitsap Keyport
Institutional Controls Inspection Checklist

Area 22

Inspected by: Cara Alferness, Sealaska Environmental Services LLC
Date of inspection: 8/14/18, 8/18/18, 9/5/18, 9/11/18
Land uses: Light Industrial, offices, parking, streets
Land users: Keyport Employees, Base Workers

<table>
<thead>
<tr>
<th>Inspector’s Checklist</th>
<th>Y/N NA/NC</th>
<th>Comments</th>
<th>Finding No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Has access to Area 22 been maintained (have security procedures for base entry served to maintain a restricted access)?</td>
<td>Y</td>
<td>Person Contacted: Kevin Glover, Security Director Email 9/11/18. Findings: Security measures are in place. Restricted access maintained.</td>
<td></td>
</tr>
<tr>
<td>Have activities that involve digging and construction within Area 22 been controlled by the base excavation/dig permit procedure and other pertinent base instructions?</td>
<td>Y</td>
<td>Person Contacted: Lee Anne Fowler, 509-521-4624 Email 8/28/18. Findings: Excavation Permit Process in use.</td>
<td></td>
</tr>
<tr>
<td>If activities requiring an excavation/dig permit were conducted within Area 22, were there any instances in which the permit requirements were not effective in maintaining the requirements of the Institutional Controls Plan?</td>
<td>N</td>
<td>Person Contacted: Lee Anne Fowler, Email 8/28/18 Findings: Excavation Permit Process Effective.</td>
<td></td>
</tr>
<tr>
<td>Have water wells been installed in Area 22, except those for monitoring or remedial actions?</td>
<td>N</td>
<td>Gary Simmons, NWRC Keyport Engineer, Email 9/5/18: No new drinking water wells. Also none observed by inspector.</td>
<td></td>
</tr>
<tr>
<td>Is pavement still in place at Area 22?</td>
<td>Y</td>
<td>Existing pavement in place, some utility work in progress.</td>
<td></td>
</tr>
<tr>
<td>Has land use at Area 22 changed?</td>
<td>NC</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

I certify that the conditions of Area 22 on the inspection date were as reported above.

Cara Alferness

Y = yes    NA = not applicable
N = No     NC = no change

Date: 8/28/18, 9/5/18, 9/11/18

Enclosure (1)
Naval Base Kitsap Keyport
Institutional Controls Inspection Checklist

Area 7
Inspected by: Cara Alferness, SES
Date of inspection: 8/14/18, 8/28/18, 9/5/18, 9/11/18
Land uses: Light Industrial, offices, paved parking and streets, boat dock/shoreline
Land users: Keyport Employees/ Base Workers

<table>
<thead>
<tr>
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<th>Y/N NA/NC</th>
<th>Comments</th>
<th>Finding No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Has access to Area 7 been maintained (have security procedures for base entry served to maintain a restricted access)?</td>
<td>Y</td>
<td>Person Contacted: Kevin Glover, Security Director, email 9/9/18</td>
<td></td>
</tr>
<tr>
<td>Have activities that involve digging and construction within Area 7 been controlled by the base excavation/dig permit procedure and other pertinent base instructions?</td>
<td>Y</td>
<td>Person Contacted: Gary Simmons, Lee Anne Fowler, email 8/30/18</td>
<td>Excavation Permit Process in place.</td>
</tr>
<tr>
<td>If activities requiring an excavation/dig permit were conducted within Area 7, were there any instances in which the permit requirements were not effective in maintaining the requirements of the Institutional Controls Plan?</td>
<td>N</td>
<td>Person Contacted: Lee Anne Fowler, Code 102 Facilities, email 8/30/18</td>
<td>No uncontrolled excavation, permits effective.</td>
</tr>
<tr>
<td>Have water wells been installed in Area 7, except those for monitoring or remedial actions?</td>
<td>Y</td>
<td>Gary Simmons, NWC Keyport Engineer, email 9/5/18. No new drinking water wells installed. None observed by inspector.</td>
<td></td>
</tr>
<tr>
<td>Is pavement still in place at Area 7?</td>
<td>Y</td>
<td>where paved still in place.</td>
<td></td>
</tr>
<tr>
<td>Has land use at Area 7 changed?</td>
<td>NC</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

I certify that the conditions of Area 7 on the inspection date were as reported above.

Inspection
Cara Alferness

Y = yes  N = No  NA = not applicable  NC = no change

Date 8/28/18, 9/5/18, 9/11/18

Enclosure (1)