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July 25, 2013

Ms. Heather Bishop
New York State Department of Environmental Conservation
Remedial Bureau A
625 Broadway, 11th Floor
Albany, New York 12233-7015

REFERENCE: **Contract Number Q912PQ-13-P-0079**

SUBJECT: **Final Letter Work Plan Addendum #4 for Modifications to the Existing Air Biosparge Treatment System at Installation Restoration Program Sites 4 and 9, New York Air National Guard, Francis S. Gabreski Airport, Westhampton Beach, New York**

Dear Ms. Bishop,

Science Applications International Corporation (SAIC) Engineering of New York, P.C., a wholly owned subsidiary of SAIC, has been retained by the New York Air National Guard (NYANG) to provide environmental support services at Installation Restoration Program (IRP) Sites 4 and 9 during Ramp Improvement Project activities being conducted at Francis S. Gabreski Airport, Westhampton, New York.

Remedial action-operations (RA-O) activities are being conducted at IRP Sites 4 and 9 under a separate National Guard Bureau (NGB) contract for the NGB Operations Restoration Branch (A7OR), which manages IRP activities for the Air National Guard (ANG). Petroleum-contaminated groundwater at IRP Sites 4 and 9 is being remediated through an air biosparge treatment system, which has been operating at the sites since July 2009. The original biosparge treatment system footprint was expanded in September 2012 during RA-O optimization activities, as outlined in the *Work Plan Addendum #3 for Remedial Action Operations, Long-Term Monitoring, and Project Closeout at Installation Restoration Program Sites 1, 4, 7, 8, 9, 10, 11, and 12, 106th Rescue Wing, New York Air National Guard, Francis S. Gabreski Airport, Westhampton Beach, New York* (ANG 2012a).

This Letter Work Plan (WP) Addendum summarizes field activities to be conducted under NYANG Contract Number Q912PQ-13-P-0079. These activities are based upon meetings held on April 9, 2013, at the New York ANG Base at Francis S. Gabreski Airport, Westhampton Beach, New York, to discuss impacts of the Ramp Improvement Project on infrastructure associated with the ongoing RA-O activities at Sites 4 and 9 and the subsequent *Technical Approach and Clarifications* dated July 8, 2013.

1.0 PROJECT SCOPE

The current air biosparge treatment system footprint is shown in Figure 1. Although IRP Sites 4 and 9 are commonly addressed together due to their close proximity and shared historical contamination, impacts

from the Ramp Improvement Project are primarily limited to IRP Site 4, which lies on the northern side of Runway 6. Primary components of the Ramp Improvement Project relevant to the air biosparge treatment system include

- To the northwest
  - Expansion of the hardstand approximately 100 to 125 ft toward the southeast.
  - Construction of a new drainage swale along the edge of the improved hardstand and a new detention basin west of monitoring wells SDW-24/24A.
  - Construction of a new perimeter fence running southeast and parallel to the drainage swale.
- To the south/southeast
  - Concrete resurfacing of the existing taxiway.
  - Addition of an asphalt shoulder.
  - Construction of a new drainage swale along the northern edge of Runway 6.

This Letter WP Addendum addresses four primary tasks, as follows:

- Protect the existing air biosparge treatment system during construction activities, to the extent practical.
- Install replacement aircraft-rated vaults and supply lines following construction.
- Modify wells and vaults affected by earthwork that resulted in a change in ground surface elevation and/or resulted in necessary structural upgrades.
- Restore system piping and infrastructure to pre-existing conditions for continued operation of the treatment system.

2.0 FIELD ACTIVITIES

2.1. CONSTRUCTION COORDINATION

All fieldwork activities will be coordinated with the ANG Construction Contractor.

2.2. SYSTEM SHUTDOWN AND DISCONNECT

The air biosparge treatment system will be shut down during construction activities. Prior to shut down, the two system compressors will be broken down and lubricated in preparation for long-term shutdown. Existing supply lines within select vaults and other strategic locations (approximately 25 locations total, see Figure 1) will be cut to isolate system components within the limits of construction.

Existing vaults and wells (approximately 35 locations) within the limits of construction will be marked with orange snow fence wrapped around four fence posts at each location (see Figure 1). Care will be taken not to drive fence posts through existing polyvinyl chloride air supply lines.

2.3. VAULTS

Valve Vault #7, currently located on the northern edge of the taxiway within the proposed shoulder will be relocated to the northwest outside the limits of construction, as shown on Figure 1.

The air supply trunk line between current Valve Vault #7 and the proposed new Valve Vault #7 location will require replacement due to construction of the new drainage swale, which intersects its current path. The bottom of the proposed drainage swale will sit approximately 2 ft below the surrounding grade; therefore, the replacement trunk line will be angled (approximately 5 to 8% from horizontal, beginning approximately 15 to 20 ft away from the swale on either side) to pass beneath the drainage swale with a minimum 2-ft clearance.

Wells located within proposed concrete areas will be modified as necessary and placed in aircraft-rated vaults prior to the pouring of concrete by the ANG Construction Contractor. Design of the aircraft-rated vaults is currently in progress; thus, design specifications will be submitted separately prior to installation in a field change order.

2.4. MONITORING AND BIOSPARGE INJECTION WELLS

Damaged biosparge injection wells will be replaced following installation guidelines established in the Final WP Addendum #3 (ANG 2012a).

Changes in ground surface elevations at some well locations will require modification of the pre-existing well surface completion (i.e., SW-7 in the extended hardstand). At these locations, existing well vaults will be removed, well casings will be cut off at approximately 1 ft below ground surface, and new surface completions will be installed (see Figure 2).

2.5. SYSTEM RECONNECT AND RESTART

Following earth-disturbing activities, soft barricade protection measures will be removed.

Prior to the pouring of concrete, any damaged supply lines will be replaced consistent with installation guidelines from the Final WP Addendum #3 (ANG 2012a). New supply lines will be pressure tested to ensure that all damaged pipe has been repaired and no leaks exist. Finally, supply lines, vaults, and wells will be reconnected, and the compressors will be reassembled. The biosparge treatment system will be restarted and RA-O activities will resume.

2.6. SURVEY

Modified monitoring wells will be surveyed in accordance with ANG policy.

3.0 CONSTRUCTION COMPLETION LETTER REPORT

Field activities will be documented in a Construction Completion Letter Report (draft and final). This letter report will include an updated record drawing of the revised biosparge system layout and a brief discussion of any deviations from this Letter WP Addendum #4, as well as a table of revised monitoring and injection well coordinates.

Monitoring well coordinates will also be updated in the Environmental Restoration Program Information Management System as applicable.

4.0 HEALTH AND SAFETY

SAIC field personnel are required to comply with the *Site Safety and Health Plan for Remedial Action-Operations, Long-Term Monitoring, and Project Closeout at Installation Restoration Program Sites 1, 4, 7, 8, 9, 10, 11, and 12* (SSHP; ANG 2012b). A review of the SSHP confirmed that potential hazards are sufficiently addressed within the existing activity hazard analyses (AHAs); thus, no additional AHAs are required. However, if additional hazards not addressed by the SSHP, AHAs are identified in the field, the SAIC Health & Safety Manager will be notified, and additional controls may be required.

5.0 REFERENCES

ANG (Air National Guard) 2012a. *Work Plan Addendum #3 for Remedial Action Operations, Long-Term Monitoring, and Project Closeout at Installation Restoration Program Sites 1, 4, 7, 8, 9, 10, 11, and 12, 106th Rescue Wing, New York Air National Guard, Francis S. Gabreski Airport, Westhampton Beach, New York*, Final, August.

ANG 2012b. *Site Safety and Health Plan for Remedial Action-Operations, Long-Term Monitoring, and Project Closeout at Installation Restoration Program Sites 1, 4, 7, 8, 9, 10, 11, and 12*, Final, August.

SAIC (Science Applications International Corporation) 2013. *Technical Approach and Clarifications*, Solicitation Number W912PQ-13-T-0019, Project: Ramp Improvement Environmental Support, 106th Rescue Wing, Francis S. Gabreski Airport, July 8.

Should you have any questions, please do not hesitate to contact me at 865-481-8749 or by email at Michael.D.Poligone@saic.com. Thank you.

301 Laboratory Rd | Oak Ridge, TN 37830 | saic.com

Sincerely,

SCIENCE APPLICATIONS INTERNATIONAL CORPORATION

Michael Poligone
Project Manager

cc: Ms. Jody Murata, ANG/A7OR
Mr. Anthony Vasell, NYANG
Mr. Ron Paulsen, New York State Department of Environmental Conservation
Mr. Steve Karpinski, New York Department of Health

SITE 4

SITE 9

PROPOSED HARDSTAND IMPROVEMENT

PROPOSED DRAINAGE SWALE

ACCESS ROAD

RUNWAY 6

DETENTION BASIN

5 ug/L

1000 ug/L

SW-4 SW-5 SW-7 SW-8 SW-9 SW-10

SDW-021 SDW-022 SDW-024A SDW-24 SDW-023 SDW-23A

AS-1 AS-2 AS-3 AS-4 AS-5 AS-6 AS-7 AS-8 AS-9 AS-10 AS-11 AS-12 AS-13 AS-14 AS-15 AS-16 AS-17 AS-18 AS-19 AS-20 AS-21 AS-22 AS-23 AS-24 AS-25 AS-26 AS-27 AS-28 AS-29 AS-30 AS-31 AS-32 AS-33 AS-34 AS-35 AS-36 AS-37 AS-38 AS-39 AS-40 AS-41 AS-42 AS-43 AS-44 AS-45 AS-46 AS-47 AS-48 AS-49 AS-50 AS-51 AS-52 AS-53 AS-54 AS-55 AS-56 AS-57 AS-58 AS-59 AS-60 AS-61 AS-62 AS-63 AS-66 AS-67 AS-68 AS-69 AS-70 AS-71 AS-72 AS-73 AS-74 AS-75 AS-76 AS-77 AS-P1 AS-P2

PZ-1 PZ-2 PZ-3 PZ-4

SW-6 SW-6A SW-6B

MW04-GW01 MW04-GW02 MW04-GW03 MW04-GW04 MW04-GW05

MW09-GW01 MW09-GW02 MW09-GW03 MW09-GW03R MW09-GW04 MW09-GW05 MW09-GW06 MW09-GW07 MW09-GW08 MW09-GW09 MW09-GW10

06MW01 06MW02 06MW02A 06MW02B 06MW02C 06MW03A 06MW03B 06MW03C 06MW04

VALVE VAULT #14
VALVE VAULT #13
VALVE VAULT #12
VALVE VAULT #11
VALVE VAULT #10
VALVE VAULT #9
VALVE VAULT #8
NEW VALVE VAULT #7 (SEE NOTE 2)
SEE NOTE 3
EXISTING VALVE VAULT #7
VALVE VAULT #6
VALVE VAULT #5
VALVE VAULT #4
VALVE VAULT #3
VALVE VAULT #2
EXISTING VALVE VAULT #1

184.19 ft

1. Suggest replacing the plume with a more recent one or eliminating it completely from this Figure.
2. Suggest removing Note 1 or at least removing the reference to optimization activities.
3. Suggest adding the tan circle to the table in front of monitoring wells as well as in front of air sparge vaults so that it is clearer.

8'

BIOSPARGE SYSTEM SHED

PERSONNEL GATE

ELECTRICAL CABLE

TRANSFORMER

LEGEND:

- PERFORMANCE PIEZOMETER (PILOT TEST)
- 2012 BIOSPARGE WELL
- 2008 BIOSPARGE WELL
- BIOSPARGE WELL FOR PILOT TEST, JULY 2012
- MONITORING WELL
- EXISTING SPARGE LINE (3-IN PVC)
- EXISTING SPARGE LINE (1-IN PVC)
- NEW SPARGE LINE (3-IN PVC)
- NEW SPARGE LINE (1-IN PVC)
- EXISTING VALVE VAULT
- NEW VALVE VAULT
- POTENTIALLY IMPACTED SUPPLY LINES
- DISCONNECT SUPPLY LINE FROM SPARGE WELL AND ADD SOFT BARRICADE PROTECTION
- ADDITIONAL WELLS/VAULTS TO PROTECT WITH SOFT BARRICADES
- CUT SUPPLY LINE AND CAP
- BTEX CONTOUR ug/L (MARCH 2012)
- GROUNDWATER FLOW DIRECTION
- TREES/BRUSH, HEAVY GROWTH
- MONITORING WELLS SELECTED FOR SEMIANNUAL COMPLIANCE MONITORING
- MONITORING WELLS SELECTED FOR QUARTERLY PERFORMANCE MONITORING
- DRAINAGE FEATURE INSTALLED AS PART OF HARDSTAND IMPROVEMENT

NOTES:

1. HARDSTAND IS SCHEDULED FOR ADDITIONAL IMPROVEMENTS AND MAY IMPACT FINAL OPTIMIZATION DESIGN.
2. RELOCATE EXISTING VALVE VAULT NO. 7. NEW LOCATION TO BE 50-FT MINIMUM NORTH OF EXISTING TAXIWAY EDGE AT PERIMETER OUTSIDE LIMIT OF EARTHWORK CONSTRUCTION.
3. REPLACE EXISTING 3-INCH PVC SUPPLY LINE BETWEEN EDGE OF DRAINAGE DITCH, NEW DEPTH SHALL BE A MINIMUM OF 2-FT BELOW DITCH CENTERLINE ELEVATION. DITCH CENTERLINE FIELD ELEVATION TO BE DETERMINED IN THE FIELD.

AIR SPARGE VAULTS
3, 4, 7, 10, 13, 70, 69, 68, 67, 66, 64, 65, 21, 22, 56, 57, 58, 38, 55, VALVE VAULT #13
AIR SPARGE VAULTS
77, 1, 2, 5, 8, 16, 59, 27, 54
MONITORING WELL
SDW-24, SDW-24A, SW-7, MW04-GW04, SDW-023, SDW-23A

2 in

NY STATE PLANE NAD 83 EAST

0 40 80 160

SCALE: 1" = 80'

106th RESCUE WING
NEW YORK
AIR NATIONAL GUARD

106th RESCUE WING, NY ANG
FRANCIS S. GABRESKI AIRPORT
WESTHAMPTON BEACH, NY

FIGURE 1
BIOSPARGE SYSTEM
PROTECTIVE MEASURES
SITES 4 AND 9

DRAWN BY:	REV. NO./DATE:	CAD FILE:
R. BEELER	0/07-03-13	/12015/DWGS/M33_S49_PROTECT-01

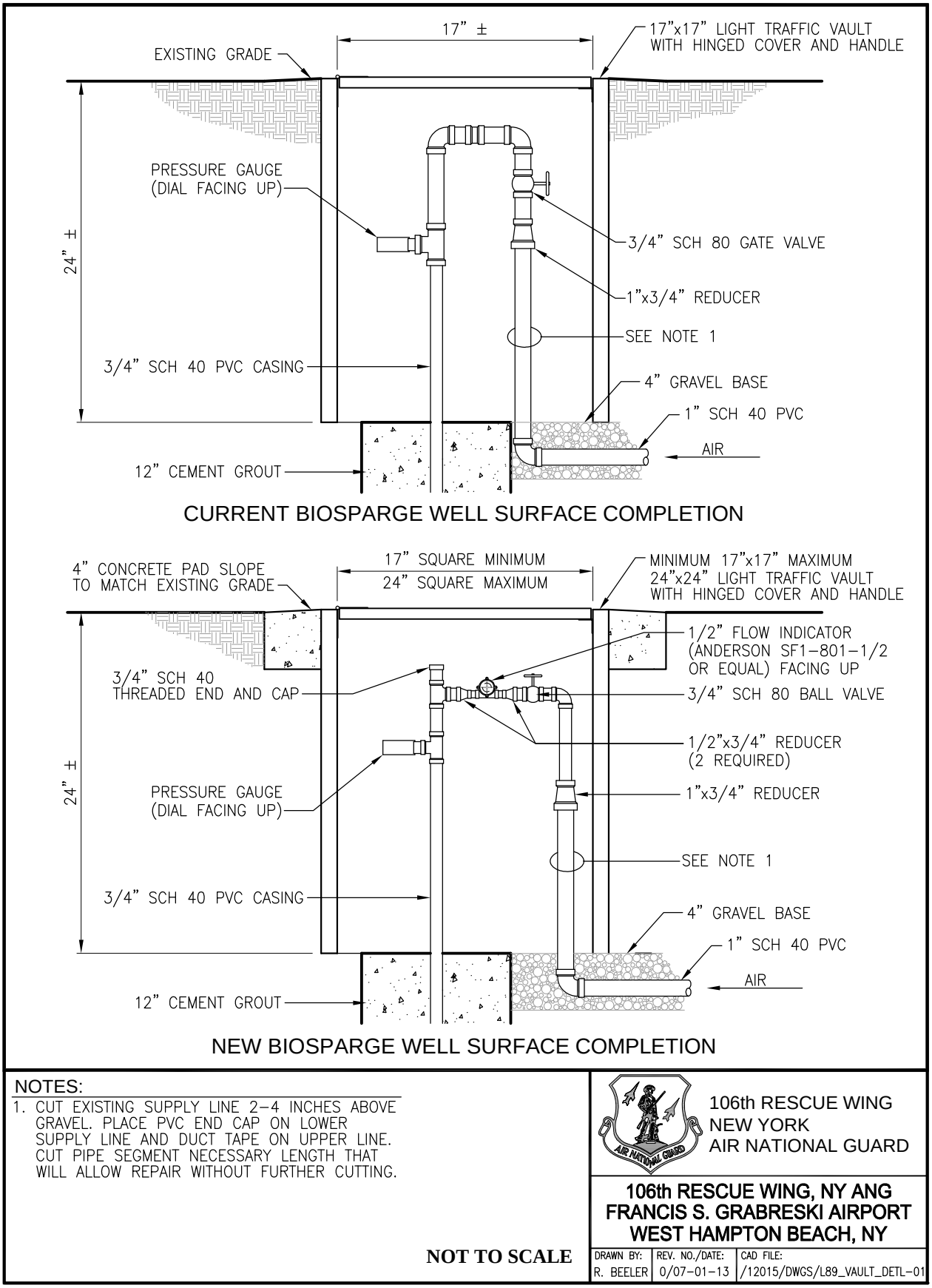

Figure 2. Vault Protection Measures Detail for New and Existing Sparge Points