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LETTER REGARDING BUREAU OF AIR QUALITY REVIEW OF AGGRESSIVE FLUID VAPOR
RECOVERY ZONE I SITE 36 BUILDING NS-26 CNC CHARLESTON SC
09/10/2002
BUREAU OF AIR QUALITY

D H E C



PROMOTE PROTECT PROSPER

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Columbia, SC 29201-1708

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MEMORANDUM

DATE: September 10, 2002

TO: Michael Bishop
Bureau of Water

FROM: Mary Peyton Davis *MPD*
Air Modeling Section
Bureau of Air Quality

SUBJECT: Charleston Naval Complex, GWPD # 00944
1849 Avenue F
North Charleston, South Carolina

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SEP 11 2002

Water Monitoring, Assessment &
Protection Division

The Bureau of Air Quality has reviewed the air emission information for the aggressive fluid vapor recovery event to be located at Charleston Naval Complex in North Charleston, SC. Air dispersion modeling results indicate that the air toxics emitted (Benzene, Toluene, Ethylbenzene, Xylenes, and Naphthalene) will result in off-site concentrations of these toxics that will meet the air toxic standards (Standard No. 8). Since the total volatile organic compound (VOC) emissions are less than 1000 lbs./month, an air permit will not be required for the enhanced fluid recovery event. If the 1000 lb. VOC limit is reached during the enhanced fluid recovery event, the system will be shut down, and an air permit will be obtained from the Bureau of Air Quality before operation may continue. This is in accordance with Section II, Part F, Paragraph G of the SC Dept. of Health and Environmental Control Air Pollution Control Regulation No. 62.1.

cc: Bruce Hennessee, Trident EQC District
Alyson Hayes, BAQ Permitting
Engineering File

AIR DISPERSION MODELING SUMMARY SHEET

SITE NAME: Charleston Naval Complex

DATE: 9/10/02

LOCATION: North Charleston

REVIEWED BY: MPD

GWPD NO.: 00944

MODEL: ISCST3

SOURCE DESCRIPTION: Aggressive fluid vapor recovery event

RESULTS:

POLLUTANT	CAS NO.	AVERAGING PERIOD	MAX. MODELED CONCENTRATION ($\mu\text{g}/\text{m}^3$)	STANDARD ($\mu\text{g}/\text{m}^3$)
Benzene	71-43-2	24 Hour	211.95	150
Toluene	108-88-3	24 Hour	211.95	2000
Ethyl benzene	100-41-4	24 Hour	211.95	4350
Xylene	1330-20-7	24 Hour	211.95	4350
Naphthalene	91-20-3	24 Hour	211.95	1250

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JUL 16 2002

July 13, 2002

Water Monitoring, Assessment &
Protection Division

Mr. Michael Bishop
South Carolina Department of Health and Environmental Control
2600 Bull Street
Columbia, SC 29201

Subject: Request for the use of Aggressive Fluid Vapor Recovery (AFVR)
at Zone I; Site 36/ Bldg NS 26, (SCDHEC No: 00944)

Mr. Bishop:

On behalf of the U.S. Navy Southern Division Naval Facilities Engineering Command, CH2M-Jones, LLC requests the use of AFVR as mentioned in the Corrective Action Plan (CAP) submitted on November 2000. To date the passive free product removal (hand bailing) has not recovered the expected amount of free product. For a detailed site history of passive free product removal, see Table I.

For a detailed outline of the AFVR activities including groundwater monitoring plan, see Section 4.0 of the November 2000 CAP.

Figure 1 presents the locations of the groundwater monitoring wells at Site 36 (00944).

If you have any questions, comments, or require additional information please do not hesitate to contact us.

Sincerely,

CH2M-Jones, LLC



Brian R. Crawford, R.E.M.
Engineer II
(843) 740-2780

enclosures

Table 1: Passive Free Product Removal

Monitoring Well	Depth to Product	Depth to water	Amount of Free product removed	Date
P01	6.68	6.77	3.5 inches	1-17-01
P03	6.36	7.13	20 inches	1-17-01
P01	6.77	6.81	0.5 inches	1-29-01
P03	6.85	7.25	7 inches	1-29-01
P01	n/a	n/a	3 inches	2-9-01
P03	n/a	n/a	1 inch	2-9-01
MW02	n/a	n/a	3 inches	2-9-01
P01	6.65	6.67	2 inches	2-15-01
P03	6.54	6.62	4 inches	2-15-01
MW02	6.44	6.55	1 inch	2-15-01
P01	Sheen		Sheen	3-5-01
P03	N/a	N/a	.25 inch	3-5-01
MW02	sheen		sheen	3-5-01
P01	none	none	none	3-26-01
P03	sheen	sheen	sheen	3-26-01
MW02	6.8	6.81	Trace/ bead	3-26-01
P01	Trace/ bead	Trace/ bead	Trace/ bead	4-12-01
P03	Trace/ bead	Trace/ bead	Trace/ bead	4-12-01
MW02	Trace/ bead	Trace/ bead	Trace/ bead	4-12-01
P01	N/a	6.46	none	4-30-02
P03	6.24	6.25	Trace/ bead	4-30-02
MW02	none	6.26	none	4-30-02
P01	none	6.87	none	6-6-01
P03	6.82	N/a	4 inches	6-6-01
MW02	none	6.58	none	6-6-01
P01	none	N/a	None	8-29-01
P03	Trace/ bead	Trace/ bead	Trace/ bead	8-29-01
MW02	Trace/ bead	Trace/ bead	Trace/ bead	8-29-01
P01	Trace/ bead	Trace/ bead	Trace/ bead	9-10-01
P03	Trace/ bead	Trace/ bead	1 inch	9-10-01
MW02	Trace/ bead	Trace/ bead	Trace/ bead	9-10-01
P01	N/a	N/a	2 inches	10-15-01
P03	N/a	N/a	1 inch	10-15-01
MW02	N/a	N/a	1 inch	10-15-01
P01	6.69	6.73	0.04	1-23-02
P03	none	5.95	none	1-23-02
MW02	6.43	6.55	1 inch	1-23-02
P01	6.68	6.79	beads	1-29-02
P03	6.58	6.80	1inch	1-29-02
MW02	6.43	6.54	.025 inch	1-29-02
P01	6.32	6.48	1.5 inch	2-18-02
P03	6.28	6.91	Beads	2-18-02
MW02	Trace/ bead	6.12	None	2-18-02
P01	Trace/ bead	N/a	3 inch	2-25-02
P03	Trace/ bead	N/a	5 inches	2-25-02
MW02	Trace/ bead	N/a	4 inches	2-25-02
P01	Trace/ bead	N/a	1 inch	3-27-02
P03	Trace/ bead	N/a	1 inch	3-27-02
MW02	Trace/ bead	N/a	2 inch	3-27-02

Monitoring Well	Depth to Product	Depth to water	Amount of Free product removed	Date
P01	Trace/ bead	N/a	1 inch	6-3-02
P03	Trace/ bead	N/a	1 inch	6-3-02
MW02	Trace/ bead	N/a	1 inch	6-3-02
P01	Trace/ bead		1 inch	7-10-02
P03	N/a	N/a	3 inches	7-10-02
MW02	Trace/ bead		1 inch	7-10-02

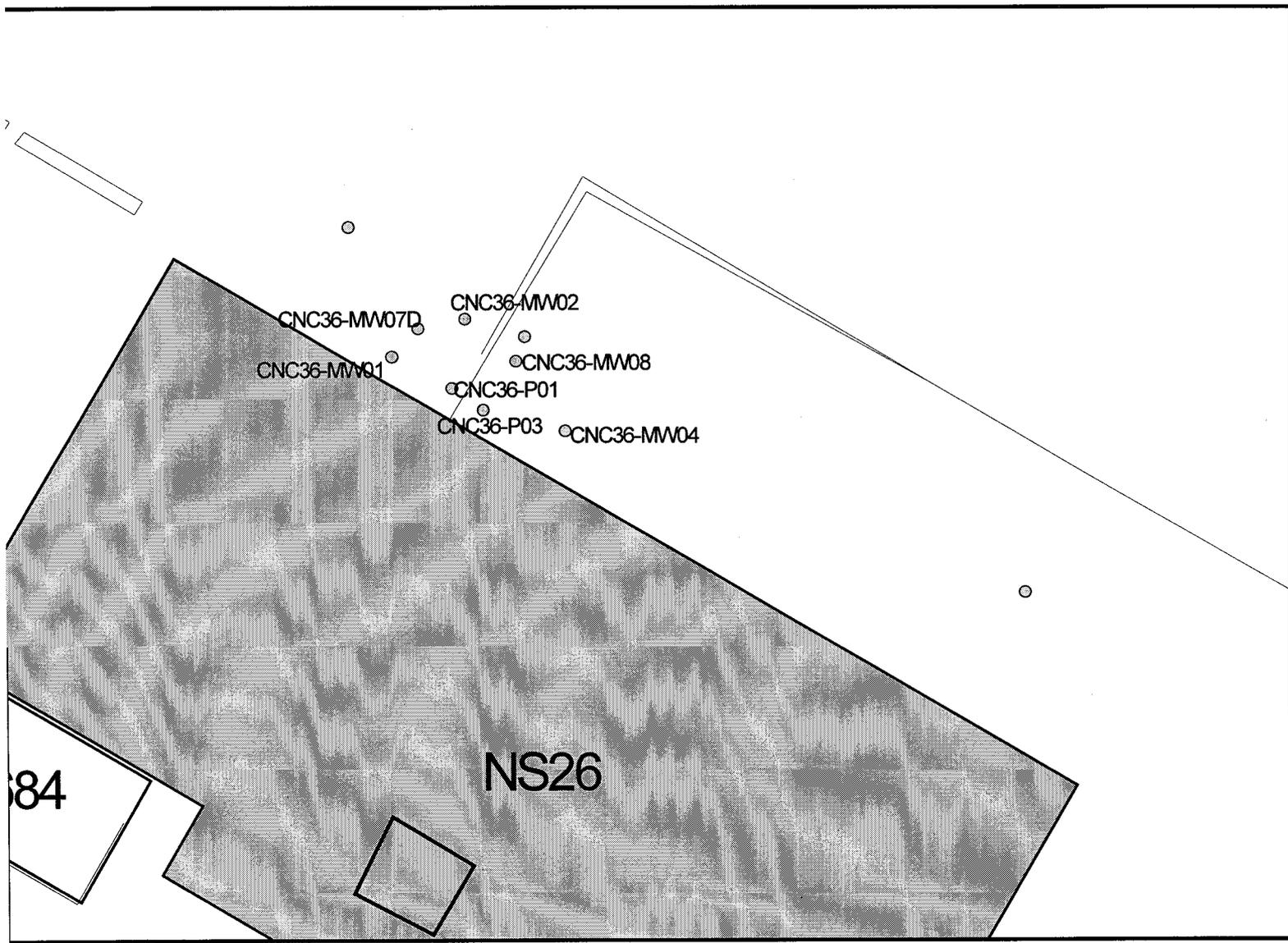


Figure 1
 Site 36
 Monitoring Wells
 Charleston Naval Complex

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