



UNITED STATES  
NUCLEAR REGULATORY COMMISSION  
REGION I  
478 ALLENDALE ROAD  
KING OF PRUSSIA, PENNSYLVANIA 19406

MAR 18 1991

James McKnight  
Document Control Desk  
U.S. Nuclear Regulatory Commission  
1717 H Street, N.W.  
Washington, D.C. 20555

Dear Mr. McKnight:

The attached information from the Peach Bottom Citizens Radiological Monitoring Network, covering the report dates from December 2, 1990 to February 16, 1991, is to be processed through the NUDOCS system for Peach Bottom with its docket number 50-277, Unit 2 and 50-278, Unit 3.

If you have any questions concerning these reports, please contact me at FTS 346-5213 or Ms. L. F. also of my staff at FTS 346-5323.

Sincerely,

Robert Bores, Chief  
Effluents Radiation Protection Section  
Facilities Radiological Safety and  
Safeguards Branch  
Division of Radiation Safety and  
Safeguards

Enclosures:

Peach Bottom Report Dates

1. December 2-8, 1990
2. December 9-15, 1990
3. December 16-22, 1990
4. December 23-29, 1990
5. December 30, 1990 - January 5, 1991
6. January 6-12, 1991
7. January 13-19, 1991
8. January 20-26, 1991
9. January 27, 1991 - February 2, 1991
10. February 3-9, 1991
11. February 10-16, 1991

PEACH BOTTOM ALLIANCE  
 3800 JOURDAN AVENUE  
 DARLINGTON, MARYLAND  
 21034

CITIZENS RADIATION MONITORING NETWORK

FOR: *Mc Bors*  
 DATES COVERED: *2 to 8 December 90*  
 STATIONS REPORTING: *8*

station	# records	counts/min.	
		average	max. deviation
A	<u>14</u>	<u>13.3</u>	<u>-0.8 to +1.6</u>
B	<u>14</u>	<u>12.3</u>	<u>-1.1 to +1.3</u>
C	<u>10</u>	<u>16.2</u>	<u>- 2 to +1.1</u>
D	<u>14</u>	<u>18.4</u>	<u>-1.2 to +2.7</u>
E	<u>10</u>	<u>14.4</u>	<u>-1.4 to +1.1</u>
F	<u>14</u>	<u>12.0</u>	<u>-1.1 to +1.8</u>
G	<u>not</u>	<u>assigned</u>	<u>_____</u>
H	<u>_____</u>	<u>_____</u>	<u>_____</u> *
J	<u>11</u>	<u>16.4</u>	<u>-4.0 to +7.4</u>
K	<u>12</u>	<u>11.8</u>	<u>-3.9 to +2.6</u>

Submitted by

*JB Bors*

\* *lost in the mail.*

*Alerts - no repeat this week.*

20 DEC 10 1990

PEACH BOTTOM ALLIANCE  
 3506 JOURDAN AVENUE  
 DARLINGTON, MARYLAND  
 21034

CITIZENS RADIATION MONITORING NETWORK

FOR:

Mr. Boers

DATES COVERED:

9 thru 15 December 1990

STATIONS REPORTING: 8

Station	# records	counts/min.	
		average	max. deviation
A	10	15.2	-1.0 to +2.1
B	14	12.1	-1.2 to +2.6
C	9	16.3	-1.1 to +0.8
D	14	18.5	-1.4 to +1.3
E	10	14.3	-1.6 to +1.9
F	10	12.0	-1.6 to +1.4
G	not	assigned	
H	13	13.4	-2.6 to +3.2 *
J	—		
K	11	12.8	-1.2 to +1.8

Submitted by

Jean S. Puring

Alerts:

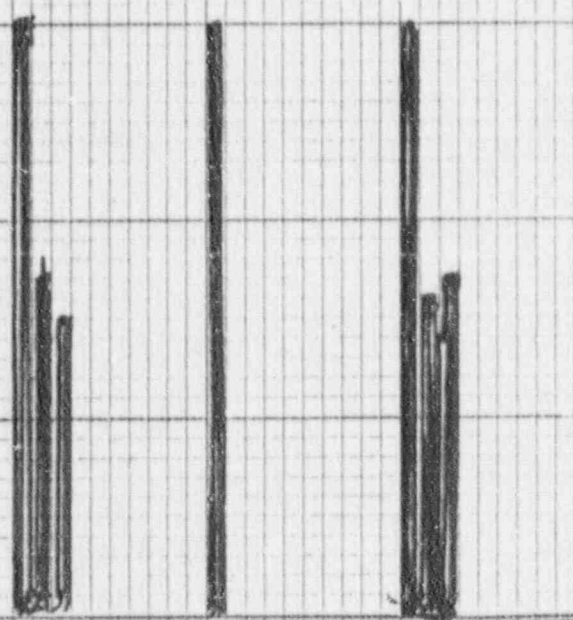
Sta. H, 11 mi ESE of plant at 114°

9 Dec 1<sup>05</sup> PM 30 cpm for 1 minute Wind NW  
 10 Dec 6<sup>15</sup> PM 30 cpm for 1 minute Wind NW  
 15 Dec 1<sup>20</sup> PM 30 cpm for 1 minute Wind SW

PEACH BOTTOM ALLIANCE  
 Week of 9-15 Dec '90

MONITOR READINGS

40  
80  
70  
60  
50  
40  
30  
20  
10  
0



Time Date Weather Station  
 1:05 PM 9 Dec Wind NW H  
 6:15 PM 10 Dec Wind NW H  
 1:00 PM 15 Dec Wind SW H

11 mi ESE of plant @ 114°

PEACH BOTTOM ALLIANCE

3200 JOURDAN AVENUE

DARLINGTON, MARYLAND

21034

CITIZENS RADIATION MONITORING NETWORK

FOR:

Mr. Boers

DATES COVERED: 16 thru 22 December 1990

STATIONS REPORTING: 8

station	# records	counts/min.	
		average	max. deviation
A	14	14.0	-1.0 to +0.8
B	14	12.6	-1.6 to +5.2
C	4	15.7	-0.8 to +0.6
D	11	18.7	-1.6 to +1.2
E	10	14.5	-1.3 to +3.0
F	12	11.8	-1.1 to +0.5
G	—	—	—
H	14	14.2	-2.6 to +2.4
J	—	—	—
K	14	12.4	-1.9 to +0.9

Submitted by

Blasing

No alerts reported this week  
JBE

DEC 29 5 69 23

RECEIVED

## PEACH BOTTOM ALLIANCE

3500 JOURDAN AVENUE

DARLINGTON, MARYLAND

21034

## CITIZENS RADIATION MONITORING NETWORK

FOR:

Thomas I. Martin

DATES COVERED:

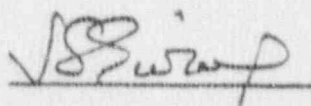
23 thru 29 December 1990

STATIONS REPORTING:

6

station	# records	counts/min.	
		average	max. deviation
A	11	13.1	-0.6 to +1.1
B	13	11.6	-1.2 to +0.8
C	9	16.6	-0.9 to +1.3
D	—	—	—
E	7	14.0	-0.7 to +0.4
F	—	—	—
G	—	—	—
H	14	14.0	-2.7 to +3.7 *
J	—	—	—
K	12	12.2	-1.3 to +2.0

Submitted by



\* Alert: Sta # 10 1/2 mi ESE of plant at 114°  
 12:30 AM 30 CPM for 1 minute. Wind NNE  
 snow flurries.

PEACH BOTTOM ALLIANCE  
Week of 23-29 Dec 90

MONITOR READINGS

Time 12<sup>20</sup> AM  
Date 27 Dec 90  
Weather Snowing (WNE)  
Station #  
10 1/2 mi ESE of plant @ 114°

JEAN S. EWING  
3300 JOURDAN AVENUE  
DARLINGTON, MARYLAND 21034

Dear Mr Martin  
We enclose this article  
on the proliferation of weapons-  
grade plutonium - a matter that  
I'm sure concerns you deeply -  
We sincerely doubt that the  
security needed is in force at  
the plants we've scattered all  
over this continent.  
To boil water?

Please let me know your  
view of this problem - yours truly,  
Jean Ewing

## PEACH BOTTOM ALLIANCE

3500 JOURDAN AVENUE

DARLINGTON, MARYLAND

21034

## CITIZENS RADIATION MONITORING NETWORK

FOR:

Mr. Martin

DATES COVERED:

30 Dec 1990 thru 5 January 1991

STATIONS REPORTING: 7

STATION	# records	counts/min.	
		average	max. deviation
A	<u>14</u>	<u>12.5</u>	<u>-1.0 to +0.9</u>
B	<u>14</u>	<u>12.2</u>	<u>-1.1 to +1.8</u>
C	<u>8</u>	<u>15.9</u>	<u>-0.8 to +1.2</u>
D	<u>12</u>	<u>18.0</u>	<u>-2.4 to +1.6</u>
E	<u>8</u>	<u>14.3</u>	<u>-1.1 to +0.9</u>
F	<u>—</u>	<u>—</u>	<u>—</u>
G	<u>—</u>	<u>—</u>	<u>—</u>
H	<u>10</u>	<u>13.3</u>	<u>-2.1 to +2.0</u> *
J	<u>—</u>	<u>—</u>	<u>—</u>
K	<u>12</u>	<u>12.2</u>	<u>-2.3 to +1.0</u>

Submitted by

SEWamp

\*

Alert: STA.H. 11 mi ESE @ 114° SW wind30 Dec. 10<sup>15</sup> AM. 30 cpm for 1 minute

PEACH BOTTOM ALLIANCE  
Week of 30 Dec 90 - 5 Jan 91  
H2 wing

READINGS

MONITOR

90

80

70

60

50

40

30

20

10

0

Time  
Date  
Weather  
Station

10<sup>15</sup> AM  
30 Dec 90  
SW wind  
# 11 mi ESE  
@ 114°

# Is Iraq Evading The Nuclear Police?

By Paul Leventhal

WASHINGTON  
**I**n as Iraq's nuclear po-  
 tential, it is a mistake to focus  
 exclusively on the expertise of  
 Iraqi scientists and nuclear in-  
 dustries. Saddam Hussein does-  
 n't need to manufacture the  
 plutonium and enriched uranium es-  
 sential for the bomb. He could con-  
 ceivably buy what he needs in a nu-  
 clear black market or simply steal it.  
 He has tried in the past. In 1982, as  
 documented by an Italian magistrate,  
 Iraqi officials tried to buy 75 pounds  
 of French plutonium for \$62.5 million  
 from two arms dealers who promised  
 but never produced the material.

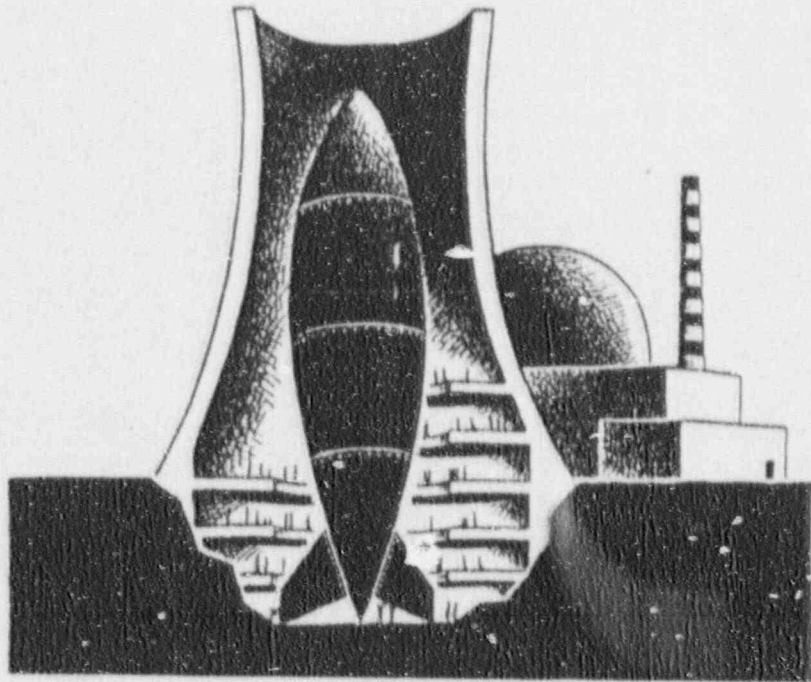
Unfortunately, there can be no iron-  
 clad assurances that Iraq has not  
 already succeeded in acquiring the nu-  
 clear explosives it needs to complete  
 its weapons. Inspections, like the  
 twice yearly visits of the Interna-  
 tional Atomic Energy Agency, can't  
 tell us anything about Iraq's clandestine  
 activities. At best, they can confirm  
 only that the regime's known  
 supplies of imported nuclear fuel are

still where they are supposed to be.

These concerns about Iraq expose  
 the central problem of the global non-  
 proliferation system: permitting the  
 use of bomb-grade plutonium and  
 uranium fuels in civilian nuclear pow-  
 er and research programs. The unde-  
 tected removal of just a tiny percent-  
 age of the tons of plutonium in an  
 industrial state like France, Germany,  
 Belgium or Japan would repre-  
 sent a substantial amount of bomb  
 material.

Plant employees have ample op-  
 portunity for such diversions. Large  
 nuclear fuel plants in Europe and  
 Japan extract and process tons of  
 plutonium from spent reactor fuel  
 every year. Because of inherent un-  
 certainties in measuring large flows  
 of plutonium, which is processed in  
 liquid or powder form, officials are  
 forced to estimate. If the amount  
 recovered from the fuel falls within a  
 certain margin of error, it is assumed  
 that all the bomb-grade material has  
 been accounted for.

Paul Leventhal is president of the  
 Nuclear Control Institute.



Christopher Vortis

The I.A.E.A. does not come close to  
 achieving its goal of detecting the loss  
 of one bomb's worth of plutonium —  
 17 pounds — per plant per year. In  
 practice, as much as 600 pounds of  
 weapons-grade material could be di-  
 verted from a large plant in a year

without being recognized as missing.

Physically removing the bomb ma-  
 terial from nuclear plants is feasible.  
 A plant employee could be motivated,  
 whether by extortion, ideology or  
 bribery, to transport the material out  
 of the plant and turn it over to an  
 Iraqi agent. It could be concealed in  
 the low-level wastes that, for econom-  
 ic reasons, are discarded without any  
 monitoring for plutonium.

There are other potential sources  
 of illicit bomb materials. U.S.-sup-  
 plied bomb-grade uranium is used as  
 fuel in more than 100 research reac-  
 tors at home and overseas. Also prob-  
 lematic are several experimental fa-  
 cilities, known as critical assemblies,  
 for the designing of nuclear fuels.  
 These use huge amounts of extremely  
 pure, high-grade bomb-grade pluto-  
 nium and uranium.

Recently, security on 1,100 pounds  
 of U.S.-supplied bomb-grade material  
 at one Japanese facility was found to  
 be so lax that American specialists  
 were called in to develop improve-  
 ments on a crash basis.

A number of remedial steps should  
 be taken. Extraordinary measures  
 are needed to protect civil nuclear  
 facilities against theft. There should  
 be more frequent I.A.E.A. visits to  
 Iraq — once a week instead of twice a  
 year — to correspond with the mini-  
 mum time needed to convert the  
 country's known stocks of nuclear  
 fuel into pure uranium for a bomb.

The agency should also exercise its  
 right to conduct special inspections in  
 Iraq to seek out undeclared bomb  
 material or finished weapons. And it  
 should end its policy of keeping the  
 details of its findings secret. Iraq, still  
 a party in good standing to the Nucle-  
 ar Non-Proliferation Treaty, should  
 be condemned by the other 140 signa-  
 tories.

Finally, "peaceful" bomb-grade  
 materials must be replaced with al-  
 ternative fuels that cannot be turned  
 into weapons. This had been a high  
 U.S. priority until the Reagan and  
 Bush Administrations decided that  
 non-proliferation benefits were not  
 worth the political costs of resisting  
 European and Japanese appetites for  
 plutonium and highly enriched ura-  
 nium. If there is to be any hope that  
 future crises will be spared a nuclear  
 dimension, the White House must re-  
 verse this "see-no-evil" policy. □

PEACH BOTTOM ALLIANCE  
3300 JOURDAN AVENUE  
DARLINGTON, MA., VLAND  
21024

CITIZENS RADIATION MONITORING NETWORK

FOR:

Thomas T Martin

DATES COVERED:

5 thru 12 January 91

STATIONS REPORTING: 8

station	# records	counts/min.	
		average	max. deviation
A	<u>12</u>	<u>13.5</u>	<u>-1.0 / +2.3</u>
B	<u>14</u>	<u>12.1</u>	<u>-1.2 / +1.2</u>
C	<u>10</u>	<u>15.6</u>	<u>-1.3 / +0.6</u>
D	<u>13</u>	<u>18.2</u>	<u>-1.4 / +2.4</u>
E	<u>10</u>	<u>14.3</u>	<u>-1.3 / +1.7</u>
F	<u>12</u>	<u>12.0</u>	<u>-3.0 / +0.9</u>
G	<u>—</u>	<u>—</u>	<u>—</u>
H	<u>13</u>	<u>13.8</u>	<u>-3.4 / +2.1</u>
J	<u>—</u>	<u>—</u>	<u>—</u>
K	<u>11</u>	<u>12.5</u>	<u>-1.6 / +1.7</u>

Submitted by

Herring

No alerts reported.

PEACH BOTTOM ALLIANCE  
 3500 JOURDAN AVENUE  
 DARLINGTON, MARYLAND  
 21034

CITIZENS RADIATION MONITORING NETWORK

1991  
 Au Martin  
 DATES COVERED: 13 thru 19 Jan 91  
 STATIONS REPORTING: 7

station	# records	counts/min.	
		average	max. deviation
A	—	—	—
B	14	12.0	-1.5 / +2.6 *
C	12	16.4	-1.0 / +1.6
D	14	18.2	-1.3 / +1.2
E	10	16.1	-1.5 / +1.3 *
F	12	12.6	-1.1 / +1.2
G	—	—	—
H	12	14.6	-2.7 / +2.9
J	—	—	—
K	13	12.3	-2.1 / +2.4

Submitted by

JSSwing

Alert:

Sta. B. 16 Jan 5:45 PM for 1 minute 31 cpm.

9 1/2 mi SSE @ 257° wind NNW @ 5 mph.

Sta. E 16 Jan 4:11 PM 30 cpm for 1 min.

8:45 PM 34 cpm for 1 min.

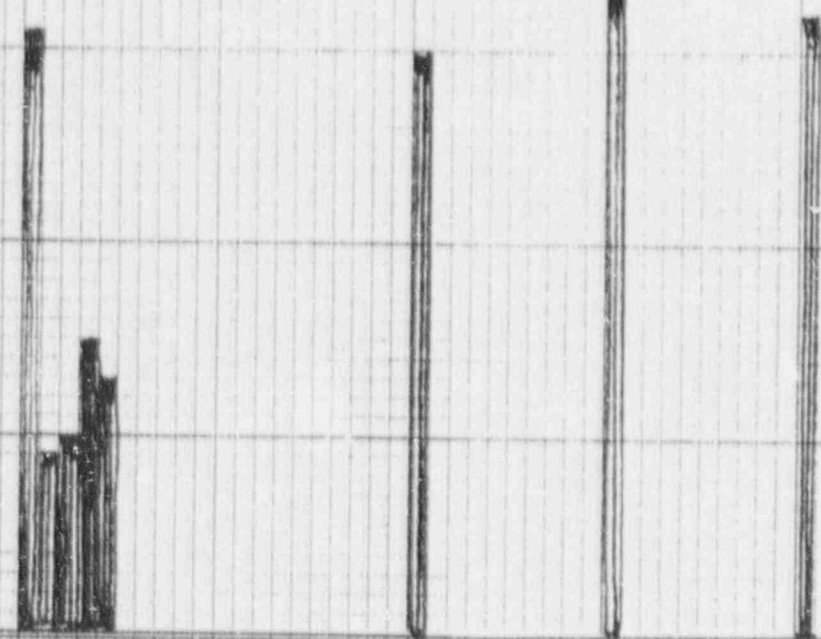
10:50 PM 32 cpm for 1 min.

5 mi NW @ 315° winds calm,  
 or light; variable.

PEACH BOTTOM ALLIANCE  
 Week of 13-19 Jan 91  
 182

MONITOR READINGS

90  
80  
70  
60  
50  
40  
30  
20  
10  
0



Time  
Date  
Weather  
Station

5:45 PM  
16 Jan 91  
fog  
 (B) 9 1/2 mi SSE @ 157°  
 Wind. NNW, 5 mph

8:45 PM  
16 Jan  
drizzle  
 (E) NW 5 mi @ 315°

10:50 PM  
16 Jan  
fog

PEACH BOTTOM ALLIANCE  
 2500 JOURDAN AVENUE  
 DARLINGTON, MARYLAND  
 21034

CITIZENS RADIATION MONITORING NETWORK

FOR: Mr Martin  
 DATES COVERED: 20 thru 26 January '91  
 STATIONS REPORTING: 9

Station	# records	counts/min.	
		average	max. deviation
A	<u>14</u>	<u>12.8</u>	<u>-2.4 / +5.3</u>
B	<u>13</u>	<u>12.0</u>	<u>-1.2 / +1.0</u>
C	<u>11</u>	<u>16.2</u>	<u>-1.5 / +1.1</u>
D	<u>14</u>	<u>18.4</u>	<u>-1.2 / +1.2</u>
E	<u>8</u>	<u>15.3</u>	<u>-1.0 / +1.5</u> *
F	<u>14</u>	<u>11.7</u>	<u>-0.7 / +1.2</u> *
G	<u>11</u>	<u>15.4</u>	<u>-1.2 / +2.7</u> *
H	<u>11</u>	<u>13.0</u>	<u>-1.7 / +4.0</u> *
J	<u>—</u>	<u>—</u>	<u>—</u>
K	<u>14</u>	<u>12.6</u>	<u>-1.5 / +1.5</u>

Submitted by

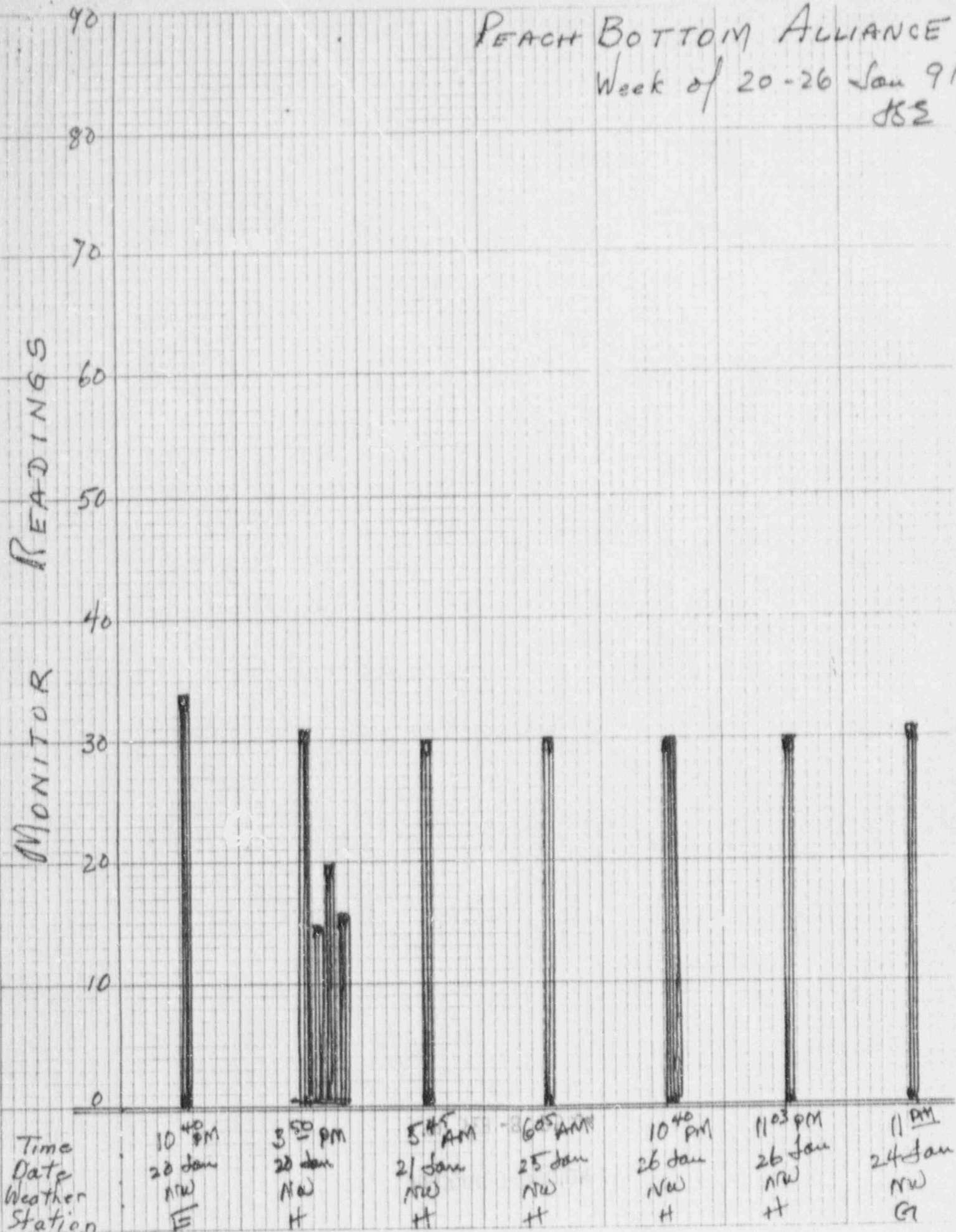
B Ewing

Notes:

A new station G. is located  $7\frac{1}{2}$  mi NE at  $36^\circ$

- \* Alerts: Sta. G. 24 Jan 11<sup>PM</sup> 31 cpm -/minute Wind NE.  
 Sta. H. 20 Jan 3<sup>50</sup> PM 31 cpm 1 minute NW wind  
 21 Jan 5<sup>45</sup> AM 30 cpm 1 minute NW wind  
 25 Jan 6<sup>05</sup> AM 30 cpm 1 minute NW wind  
 26 Jan 10<sup>40</sup> PM 30 cpm 1 min. NW "  
 " 11<sup>03</sup> PM 30 cpm 1 min. "  
 Sta E 20 Jan 10<sup>40</sup> PM. 34 cpm 1 min "

PEACH BOTTOM ALLIANCE  
 Week of 20-26 Jan 91  
 JSS



PEACH BOTTOM ALLIANCE  
 3800 JOURDAN AVENUE  
 DARLINGTON, MARYLAND  
 21034

CITIZENS RADIATION MONITORING NETWORK

FOR:

*Mr. Martin*

DATES COVERED: 27 January - 2 February 1991

STATIONS REPORTING: 8

Station	# records	counts/min.	
		average	max. deviation
A	13	12.5	-1.2 / +1.2
B	14	11.8	-2.3 / +1.2
C	10	16.4	-0.5 / +0.5
D	13	18.0	-4.4 / +1.3
E	—	—	—
F	14	11.3	-0.8 / +0.7
G	13	15.5	-1.8 / +2.7
H	12	14.0	-1.7 / +3.2
J	—	—	—
K	13	12.2	-1.5 / +1.8

Submitted by

*J. Blawie*

Alert: Sta. G. 1 Feb 11<sup>43</sup> AM; 33 cpm for 1 minute wind W.  
 2 Feb 11<sup>58</sup> AM; 31 cpm for 1 minute wind SSE  
 (location 7 1/2 mi NE @ 36°)

Sta. H. 27 Jan 9<sup>05</sup> PM; 31 cpm for 1 min. wind SSE  
 2 Feb 11<sup>35</sup> AM; 30 cpm for 1 min. wind SSE  
 (location 11 mi ESE @ 114°)

PEACH BOTTOM ALLIANCE  
 Week of 27 January - 2 February  
 1991

MONITOR READINGS

100  
 90  
 80  
 70  
 60  
 50  
 40  
 30  
 20  
 10  
 0

Time  
 Date  
 Weather  
 Station

11<sup>43</sup> AM  
 1 Feb  
 W wind  
 G

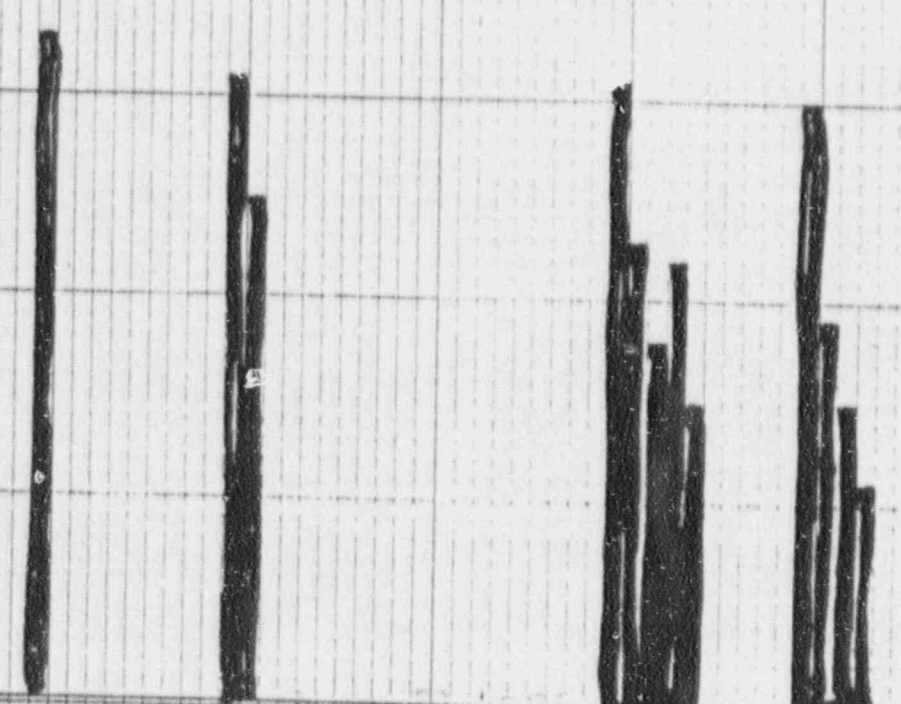
7 1/2 mi NE @ 36°

11<sup>55</sup> AM  
 2 Feb  
 SE wind  
 G

4<sup>45</sup> PM  
 27 Jan  
 SSE wind  
 H

11 mi SSE @ 114°

11<sup>53</sup> AM  
 2 Feb  
 SE wind  
 H



PEACH BOTTOM ALLIANCE  
 3800 JOURDAN AVENUE  
 DARLINGTON, MARYLAND  
 21034

CITIZENS RADIATION MONITORING NETWORK

FOR: Mr. Martin  
 DATES COVERED: 3 thru 9 February 91  
 STATIONS REPORTING: 9

Station	# records	counts/min.	
		average	max. deviation
A	<u>14</u>	<u>13.4</u>	<u>-1.1 / +2.5</u>
B	<u>14</u>	<u>12.5</u>	<u>-2.8 / +2.5</u>
C	<u>10</u>	<u>16.1</u>	<u>-0.3 / +0.9</u>
D	<u>14</u>	<u>15.3</u>	<u>-1.1 / +1.3</u>
E	<u>7</u>	<u>15.2</u>	<u>-1.5 / +2.6</u> *
F	<u>12</u>	<u>11.5</u>	<u>-1.3 / +0.7</u>
G	<u>14</u>	<u>15.1</u>	<u>-1.1 / +1.6</u> *
H	<u>13</u>	<u>16.2</u>	<u>-5.2 / +2.8</u> *
J	<u>—</u>	<u>—</u>	<u>—</u>
K	<u>13</u>	<u>12.3</u>	<u>-1.3 / +1.5</u>

Submitted by

J. Swin

Alert: Sta. G. 11<sup>15</sup> PM 4 Feb; 31 cpm for 1 minute.  
 Wind SW (location 7 1/2 mi NE @ 36°)

Sta. H. 3<sup>40</sup> PM 3 Feb; 36 cpm for 1 minute.  
 Wind WSW. (11 mi ESE @ 114°)  
 4<sup>50</sup> PM 4 Feb; 33 cpm for 1 minute. Wind NW.  
 10<sup>30</sup> AM 6 Feb; 30 cpm for 1 minute. Wind NE.  
 11<sup>10</sup> AM 9 Feb; 31 cpm for 1 minute. Wind NE.

# BEACH BOTTOM ALLIANCE

Week of 3-9 Feb 91

JSE

READINGS

MONITOR

80

70

60

50

40

30

20

10

0

11<sup>15</sup> PM  
4 Feb  
Sunny  
A

3<sup>40</sup> PM  
3 Feb  
M  
H

4<sup>00</sup> PM  
4 Feb  
M  
H

10<sup>30</sup> AM  
6 Feb  
M  
H

11<sup>10</sup> AM  
9 Feb  
M  
H

7 1/2 mi NE @ 36°

11 mi ESE @ 114°

Time  
Date  
Weather  
Station

## PEACH BOTTOM ALLIANCE

3500 JOURDAN AVENUE

DARLINGTON, MARYLAND

21034

## CITIZENS RADIATION MONITORING NETWORK

FOR:

Mr Martin

DATES COVERED: 10 thru 16 February 1991

STATIONS REPORTING: 9

Station	# records	counts/min.	
		average	max. deviation
A	14	13.3	-2.0 / +1.6
B	14	12.1	-0.7 / +1.1
C	11	17.1	-0.8 / +0.8 *
D	14	18.5	-1.9 / +2.1
E	8	15.1	-0.9 / +1.0
F	14	12.4	-1.1 / +1.2
G	13	15.6	-1.5 / +2.2 *
H	12	15.4	-1.8 / +3.3 *
J	—	—	—
K	13	13.1	-1.4 / +1.6

Submitted by

HR Wimp

Sta. C. 16 February 8<sup>45</sup> PM alert 32 cpm  
(wind at 7<sup>30</sup> NW 6 mph)

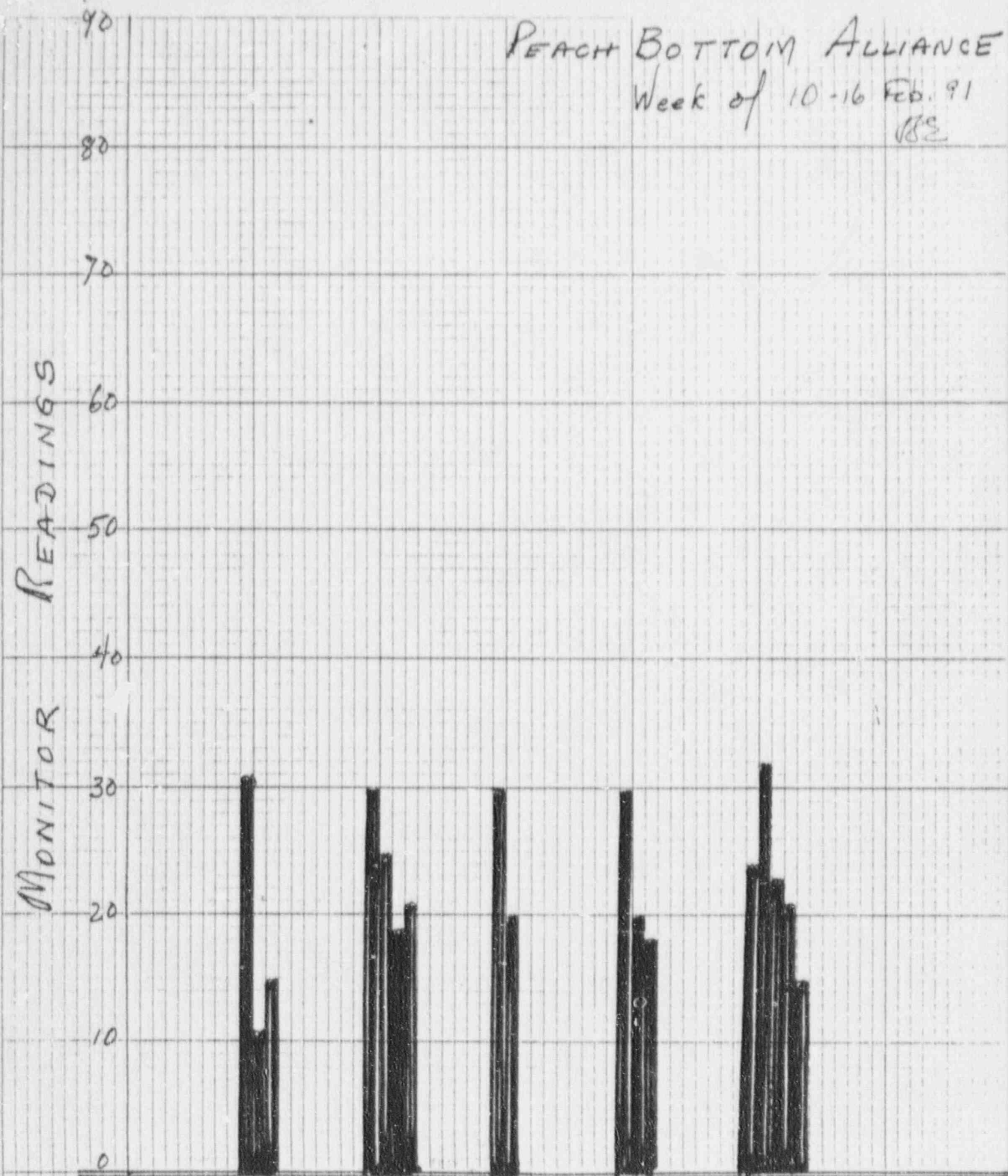
Sta. G. 14 Feb. 11<sup>45</sup> PM alert 30 cpm  
wind SE 5-10 mph

Sta. H. 13 Feb. 7<sup>37</sup> PM alert 31 cpm. Wind NW  
14 Feb. 12<sup>25</sup> PM alert 30 cpm. Wind W.  
16 Feb. 12<sup>25</sup> AM alert 30 cpm. Wind NW

PEACH BOTTOM ALLIANCE  
 Week of 10-16 Feb. 91  
 JSE

READINGS

MONITOR



Time  
 Date  
 Weather  
 Station

Location:

7:37 AM  
 13 Feb  
 NW wind  
 H  
 11 mi ESE @ 114°

1:25  
 14 Feb  
 W  
 H

11:45  
 14 Feb  
 SE  
 G  
 7 1/2 mi NE  
 @ 36°

12:45  
 16 Feb  
 NW  
 H  
 ESE

8:45 PM  
 16 Feb  
 NNW-6  
 C  
 7 1/2 E 92°