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August 28, 2002
L-02-091

U. S. Nuclear Regulatory Commission
Attention: Document Control Desk
Washington, DC 20555-0001

Subject: Beaver Valley Power Station, Unit No. 1 and No. 2
BV-1 Docket No. 50-334, License No. DPR-66
BV-2 Docket No. 50-412, License No. NPF-73
Beaver Valley Power Station Emergency Preparedness Plan/Implementing Procedures (Volume 2)

In accordance with 10 CFR Part 50.4, this letter forwards a recent revision of the Beaver Valley Power Station Emergency Preparedness Plan/Implementing Procedures (Volume 2) to the Nuclear Regulatory Commission. The changes do not decrease the effectiveness of the Plan and the Plan, as changed, continues to meet the requirements of Appendix E of 10 CFR 50. Therefore, 10 CFR Part 50.54(q) requires that these changes be submitted for information only.

There are no regulatory commitments contained in this letter. If there are any questions concerning this submittal, please contact Ms. Susan L. Vicinie, Manager, Emergency Preparedness at 724-682-5767.

Sincerely,

Mark B. Bezilla

Enclosure 1 – Summary of Changes
Enclosure 2 – Plan/Procedure revisions

c: Mr. D. S. Collins, Project Manager (w/o Enclosure 2)
Mr. D. M. Kern, Sr. Resident Inspector (w/o Enclosure 2)
Mr. H. J. Miller, NRC Region I Administrator (2 copies)

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Enclosure 1
Summary of Changes

Revisions to
Beaver Valley Power Station
Emergency Preparedness Plan/Implementing Procedures
(Volume 2)

The following is a brief summary of the changes made to the Emergency Preparedness Plan/Implementing Procedures.

<u>EPP/Implementing Procedures</u> (Volume 2):

EPP/IP 2.3 "Offsite Monitoring for Airborne Release"

Revision 12 updates the offsite survey maps and survey point descriptors in Attachments 2, 3, 4, and 5.

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Beaver Valley Power Station

Unit 1/2

EPP/IP 2.3

OFFSITE MONITORING FOR AIRBORNE RELEASE

Document Owner
Manager, Emergency Preparedness

Revision Number	12
Level Of Use	General Skill Reference
Safety Related Procedure	Yes

CONTROLLED
BVPS UNIT 3

EFFECTIVE INDEX

Issue 8 Rev.	0	OSC Approved	3-12-87
Issue 9 Rev.	0	Non-Intent Revision	10-9-90
	1	OSC Approved	12-6-90
	2	Non-Intent Revision	11-21-91
	3	Non-Intent Revision	12-29-92
Rev.	5	Non-Intent Revision	1-1-94
Rev.	6	Non-Intent Revision	10-7-94
Rev.	7	Non-Intent Revision	3-27-97
Rev.	8	Non-Intent Revision	12-2-99
Rev.	9	Non-Intent Revision	7-12-00
Rev.	10	Non-Intent Revision	8-8-01
Rev.	11	Non-Intent Revision	6-14-02
Rev.	12	Non-Intent Revision	7-29-02

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A. OBJECTIVE

This procedure provides instructions to the field monitoring teams for performing offsite field monitoring in the event of a real or potential airborne release of radioactivity.

B. RESPONSIBILITY

This procedure is to be performed by the designated offsite monitoring teams.

C. ACTION LEVELS/PRECAUTIONS/PREREQUISITES

1.0 This procedure shall be implemented by the offsite monitoring teams when the teams are organized and directed to perform offsite field monitoring.

2.0 Precautions

2.1 Designated vehicles shall be used for monitoring team purposes. Personal vehicles shall generally not be used, unless no suitable vehicles are available. Owners volunteering the use of their personal vehicles shall be alerted to the fact that most insurance companies will deny any claim for damage due to radioactive contamination. In addition, any personal vehicles shall have the same level of liability insurance as company vehicles.

2.2 All monitoring equipment shall be stowed in the vehicle such that it will not effect the safe operation of the vehicle.

2.3 Monitoring team vehicles shall be operated in compliance with all motor vehicle laws, including speed limits and the use of seat belts.

2.4 During siren activation, field monitoring teams will be instructed not to activate radio transmitters.

3.0 Prerequisites

3.1 If any of these prerequisites can not be met, request assistance from the TSC/EOF (724-682-5643, 5644) or the Operations Support Center (724-682-5391).

3.1.1 Inventoried monitoring team kit, and,

3.1.2 Hi-band Communications Radio and antenna, and/or,

3.1.3 Cell phone, and,

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3.1.4 Personal dosimetry, and,

3.1.5 Ensure PL Switch located in the Control Room is in proper position

3.1.6 BVPS vehicle, or another vehicle, meeting the following criteria:

3.1.6.1 Enclosed vehicle with sufficient room for the monitoring kit and fixed seating, with seat belts, for all team members, and,

3.1.6.2 Operable cigarette lighter receptacle, and,

3.1.6.3 At least 1/2 tank of gas, and,

3.1.6.4 Current State motor vehicle inspection sticker (if applicable).

3.1.6.5 If personal vehicle, ensure insurance is in effect, per requirements of Step 2.1.

D. PROCEDURE

1.0 Preliminary Actions

NOTE:

These preliminary steps are written with the assumption that the offsite monitoring teams will be dispatched from the Operations Support Center (OSC) or another inplant location, at the request of EA & DP personnel at the TSC/EOF.

If the TSC/EOF is not activated, all communications specified for EA & DP shall be directed to the Control Room.

If the team(s) are dispatched from an offsite location, (e.g., ERF, JPIC, home, etc.), the team is authorized to deviate from the preliminary steps provided below, as necessary, PROVIDED that the PREREQUISITE's listed above are met.

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1.1 Prior to leaving the OSC or the station, obtain the following dosimetry information on team members.

Name	Badge No.	Current TLD+Electronic Dosimeter (mrem)	Expos Limit	Current TLD+Electronic Dosimeter (mrem)
Team Leader:				
Driver:				
Addit'l:				

1.1.1 If any of these data not readily available, a reasonable estimate should be entered until data is available.

1.2 If not already in their possession, team members shall obtain and don personal dosimetry.

NOTE:

Team members will retain their dosimetry when they exit the station, and use this dosimetry while performing offsite monitoring.

If dispatched from other locations, (e.g., ERF, home, etc.), team members shall use dosimetry provided in monitoring kits.

NOTE:

Check with OSC for any precautions to transit from OSC to ERF, (i.e., dose rates).

1.3 Exit the station via the Primary Access Facility and proceed to the ERF.

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1.4 Obtain key from Dosimetry Lab Key Cabinet for emergency cabinet in ERF to obtain FMT kits.

> **NOTE:**
>
> An extra set of vehicle keys are maintained in OSC Key Cabinet if ERF can not be accessed.

1.5 Obtain vehicle key, from EA/DP in ERF.

1.6 Record the following information:

1.6.1 Procedure Start Date: _____

1.6.2 Procedure Start Time: _____

1.7 Report to EA/DP for a briefing and record the following information in the spaces provided below. If the TSC is not yet activated, obtain this information from the OSC or the Control Room.

1.7.1 Team Identification: _____

1.7.2 Emergency Classification: _____

1.7.3 Has Release Started? ___ If so, when? _____

1.7.4 Plume Type: __PUFF __GROUND LVL __ELEVATED

1.7.5 Current 35' Wind Speed: _____(mph)

1.7.6 Current 150' Wind Direction: _____(deg)

1.7.7 Initial Survey Route Assignment:

__NW__NE__SE__SW

- OR -

Initial Survey Location: _____

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1.7.8 Desired Surveys at Initial Location: _____

_____

1.7.9 Air Sampling: ___ Silver Zeolite
___ Charcoal ___ None

1.7.10 Public Protective Actions Implemented: _____

_____

1.7.11 Special Precautions or Instructions: _____

_____

_____

1.8 Locate one of the vehicles for the keys obtained. This vehicle shall meet the requirements of Section C.3.1.6.

1.8.1 If no vehicles are readily available, request the assistance of the OSC or the EA & DP in obtaining a suitable vehicle.

1.8.2 If a vehicle cannot be obtained, a volunteered personal vehicle may be used if it meets the requirements of Section C.2.0 and C.3.1.6

1.9 Obtain monitoring equipment and prepare vehicle as follows:

1.9.1 Obtain a cell phone and phone number to call from EA/DP.

1.9.1.1 Verify that EA/DP has cell phone number for each offsite FMT.

NOTE:

EA/DP will designate which communications device is the primary (i.e., cell phone or radio).

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1.9.2 Obtain an airborne radiological monitoring team kit from the emergency cabinets in the ERF.

NOTE:

Complete inventory of kit only needed if seal is broken.

1.9.3 Perform operability checks on monitoring equipment, before leaving the ERF, in accordance with instrument use procedures provided in kit.

1.9.3.1 If any piece of equipment fails its operability check, obtain a calibrated replacement from other kits or from other station sources.

1.9.4 Obtain a 60-watt monitoring team radio unit with magnetic mount antenna from the emergency cabinets in the ERF.

1.9.5 If the OSC has explicitly directed the use of protective clothing and/or respirators, this equipment shall be donned prior to leaving the station.

1.9.6 Remove the survey maps, survey logs, procedures, the beta-gamma survey instrument, radios, and other equipment that may be needed enroute, from the monitoring kits and stow in a location accessible to the team leader while enroute. Remove and don PIC, zero as necessary.

1.9.7 Load monitoring team equipment into the vehicle so that it is safely restrained and will not affect the operation of the vehicle.

1.9.8 Install radio equipment on the vehicle.

1.9.9 Prior to leaving site perform a cell phone and/or radio check with EA & DP, to verify the operability of the communications equipment.

1.9.9.1 If radio equipment and/or cell phone is inoperable, obtain replacement equipment.

1.10 Provide the following information to the EA & DP personnel:

1.10.1 Name and badge numbers of team members.

1.10.2 Current pocket dosimeter reading and exposure limits.

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1.11 Obtain a copy of the Field Monitoring Team Log (Form 2.3-1), and complete the following entries in the spaces provided:

1.11.1 GAS TANK LEVEL -- indicate gas tank level by drawing a vertical line across the scale.

1.11.2 TEAM -- indicate the team designation by circling one of the numbers and circling "OFFSITE".

1.11.3 ROUTE -- if so assigned, indicate the assigned survey route by circling one of the distances and one of the quadrants. Otherwise, circle "N/A".

1.11.4 DATE -- Enter today's date.

1.11.5 TEAM MEMBERS -- print the name and badge number of team members.

1.11.6 INSTRUMENT SERIAL NUMBERS -- enter the serial number for survey instruments.

1.12 Proceed to the first survey location, when directed.

1.13 Perform requested surveys in accordance with the remaining steps of this procedure.

1.13.1 If the TSC/EOF is not yet activated, and the OSC or Control Room has not specified a first survey location, the monitoring team shall proceed as described in Step D.3.0.

2.0 Continuing Actions

NOTE:

The instructions in this section are applicable during all offsite monitoring team activities, and shall be performed in conjunction with other steps as appropriate.

2.1 Team members shall periodically read their pocket dosimeter and report their cumulative radiation reading to the TSC/EOF no less than every 30 minutes or as directed.

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2.2 Team members shall take appropriate actions to prevent the spread of detected contamination to their skin, clothing, survey equipment, and/or vehicle to the extent possible.

2.3 Team members shall not eat, drink, or smoke in areas with greater than background contamination or airborne activity.

NOTE:

Periodically check communication with EA/DP. The cell phone may disconnect if you pass through a "weak signal" area.

2.4 Keep the communications equipment turned on at all times while away from the station.

2.5 All communications between the monitoring teams and EA & DP shall follow standard radio protocol (Attachment 7).

2.5.1 Identify survey locations using predesignated survey locations to the extent possible.

2.5.2 All survey data reports to EA & DP shall use the following format:

NOTE:

To facilitate the transfer of data, the Field Monitoring Team Log used by the monitoring team, and the Field Monitoring Worksheet used by EA & DP has similarly labeled blanks. It is only necessary to transfer the variable information. Fixed information such as Column headings and units need not be relayed. This protocol will minimize communication errors.

2.5.2.1 Report all survey data on the worksheet in relation to its block number, rather than its parameter name. For example, "...Block 1 is A point one point one; Block 5 is four zero zero zero; Block 3 is zero point five;....".

2.5.2.2 Do not report units such as mR/hr, ft3.

2.6 If members of the public or the news media solicit information from the monitoring team, the team shall:

2.6.1 Be courteous.

2.6.2 Explain that the survey is a precautionary measure, and, that the survey data are raw data that have not been evaluated, and, that significant final data will be reported to State and local authorities.

2.6.3 Direct additional public questions to the local county information line. The telephone number is provided in the emergency response section (blue pages) of the telephone directory.

2.6.4 Direct additional news media questions to the Chief Company Spokesperson at 412-604-4923.

2.7 Remain alert to the status of consumable supplies, such as vehicle gas, sample media and survey meter batteries, and notify EA & DP of any pending shortfalls.

2.8 In the event of a monitoring team shift change associated with a longer term emergency response, the off-going monitoring team will complete the FINAL CONDITIONS of this procedure. The oncoming team will initiate a new copy of this procedure, re-performing or verifying the preliminary steps above, as directed by EA & DP or the OSC.

3.0 Default Survey

NOTE:

The steps in this section are performed whenever the OSC or the Control Room does not provide an initial survey assignment. This may occur during a quickly breaking incident prior to activation of the OSC or TSC/EOF. Generally, by the time that the team has completed the preliminary steps of this procedure, the TSC/EOF will have been activated.

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3.1 Locate the survey map and the survey point index for the assigned map quadrant. (Attachments 2 through 5)

3.1.1 If the quadrant was not assigned, select the quadrant into which the wind is blowing:

Wind Direction	Quadrant	Attachment
0 – 90	SW	3
90 – 180	NW	2
180 – 270	NE	5
270 – 360	SE	4

3.2 If weather permits, perform a moving dose rate survey (Step 4.0) while enroute to the first survey location.

3.2.1 If there is a BVPS monitoring team at that location, proceed to the next location on the survey route.

3.2.2 The first survey location is indicated on each quadrant attachment (Attachments 2 through 5).

3.3 Perform a stationary dose rate survey (Step 5.0) at this location.

3.4 If the open window dose rate is greater than the closed window dose rate, obtain a 10 ft3 air sample and perform field screening on the sample media as described in Step 6.0.

3.4.1 Use a silver zeolite cartridge for iodine sampling. Ensure cartridge shelf life is not expired.

3.5 Record all data on the Field Monitoring Team Log.

3.6 Report the data to the OSC or Control Room.

3.7 Proceed to the next survey point on the route.

3.8 Repeat Steps 3.2 to 3.7 until directed otherwise.

4.0 Moving Dose Rate Survey

NOTE:

Moving dose rate surveys are performed to locate the boundaries of the plume, and/or, to locate plume centerline. The steps in this section are performed when in enroute to the first survey location, while enroute between survey locations, and as directed by EA & DP.

NOTE:

Whenever possible an ion chamber instrument, such as the Eberline RO- series, should be used for making dose rate measurements. However, an instrument with an energy-compensated GM probe, such as the Eberline HP-270, is an acceptable substitute for gamma exposure measurements.

NOTE:

Team SRD readings should be reported to EA & DP approximately every 30 minutes or, in higher dose rate areas, every 100 mrem.

4.1 Select a beta-gamma instrument.

4.2 Close the beta window.

4.3 Open the vehicle window and hold the instrument at the opening.

4.4 Travel along the designated survey route at a low rate of speed (within speed limits, no greater than 30 mph).

4.5 Monitor instrument read-out and note changes in instrument response.

4.5.1 Report the first increase (>1.0 mrem/hr) in ambient dose rate above background to EA & DP and log the location on the Field Monitoring Team Log.

4.5.2 If the ambient dose rate increases to 100 mR/hr:

4.5.2.1 Immediately move away to an area of lower dose rate.

4.5.2.2 Notify EA & DP and request instructions.

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4.5.3 If the survey is being performed to locate the leading and trailing edges of the plume also report significant decreases in ambient dose rates.

5.0 Stationary Dose Rate Survey

NOTE:

Whenever possible an ion chamber instrument, such as the Eberline RO- series, should be used for making dose rate measurements. However, an instrument with an energy-compensated GM probe, such as the Eberline HP-270, is an acceptable substitute for gamma exposure measurements.

CAUTION:

At each survey location:

- Shut vehicle off.
- Place in park and set emergency break.
- Choke wheels or turn wheels into object, (i.e., curb, to keep from drifting).
- Activate flashers.
- Put on reflective vest.

5.1 Take a closed window reading.

5.1.1 Check the beta window closed.

5.1.2 Hold the instrument, or instrument probe parallel to, facing, and about 3 feet (e.g., waist height) above the ground.

5.1.3 Allow sufficient time for the instrument reading to stabilize.

5.1.4 Record reading, in Column 3 (in mR/hr), on the Field Monitoring Team Log.

5.2 Take an open window reading.

5.2.1 Open the beta window.

5.2.2 Hold the instrument, or instrument probe parallel to, facing, and about 3 feet (e.g., waist height) above the ground. Allow sufficient time for the instrument reading to stabilize. Note the reading.

5.2.3 Rotate the instrument beta window to face upwards. Allow sufficient time for the instrument reading to stabilize. Note the reading.

5.2.4 Record the higher reading, Column 4 (in mR/hr), on the Field Monitoring Team Log.

5.2.5 Vary the height of the instrument, or probe, between waist height and 3 inches above the ground.

5.2.5.1 If the open window reading is higher, closer to the ground, record and label the 3 inch reading in the REMARKS Column.

5.3 If an air sample was requested for this location, proceed to Step 6.0.

5.4 When all measurements required at this location have been obtained, report the data (blocks 1 - 11) to EA & DP. Await further instructions.

6.0 Airborne Activity Sampling

NOTE:

If the open window dose rate measurement is about equal to the closed window reading, the survey location is not submerged in the plume and air samples will underestimate the plume concentration. Notify EA & DP if this is the case and request instructions.

6.1 Prepare sampler:

6.1.1 If not already present, mark a flow arrow on the side of the charcoal or silver zeolite cartridge.

6.1.1.1 EA & DP will direct which iodine sample media to use.

6.1.2 Place a clean particulate filter, and the iodine sample cartridge, in the sample holder and install on the sampler.

6.1.2.1 Air flow shall pass through the particulate paper first and then the cartridge in the direction of the arrow marked on the cartridge.

6.1.2.2 If EA & DP does not request an iodine sample, use a single charcoal cartridge as a place-holder. Re-use this cartridge for all subsequent particulate sample.

6.1.3 Position the sampler so that the intake is not in close proximity to potentially contaminated surfaces. Protect the filter paper and iodine cartridge from rain.

6.1.4 If the air sampler has an integral battery, proceed to Step D.6.2.

CAUTION:

In the steps to follow, use caution when connecting the air sampler power leads to the vehicle battery. Specifically:

- Shut car off, if not already done.
- Put on eye protection.
- Self check to determine positive and negative battery terminals.
- Avoid the fan, fan belt, and other potentially engine moving parts when positioning and connecting power leads.
- Avoid contact with battery acid corrosion residue.
- To minimize the potential for hydrogen explosion, do NOT connect or disconnect the sampler power leads while the sampler is turned on.
- Place the positive clamp of the air sampler on the positive battery terminal, the negative clamp on the air sampler on the negative battery terminal making sure that proper connections are made.

6.1.5 Connect the sampler to the vehicle battery.

6.2 Obtain the sample:

6.2.1 Turn on the sampler

6.2.2. Record the sample start time on an Air Sample Record Card.

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6.2.3 Read the flow rate, and determine the sampling time:

$$\frac{\text{Desired Volume } ft^3}{\text{Sample Flow Rate, cfm}} = \text{Sample Time, in minutes}$$

6.2.3.1 The desired sample volume is 10 ft3, unless directed otherwise by EA & DP personnel.

CAUTION:

- Turn off air sampler prior to removing air sampler power leads.
- Disconnect negative clamp.
- Disconnect positive clamp.

6.2.4 When the sample time has elapsed, stop the sampler and record the stop time on an Air Sample Record Card.

6.2.5 Complete other data requested on Air Sample Record Card. (Attachment 6)

6.3 Using the E140N with a HP210 probe, obtain a background reading.

6.3.1 Check that the RESPONSE control is set for the slowest response. If instrument has a speaker, ensure it is turned on.

6.3.2 Position the probe over the location where the sample media will be counted.

6.3.3 Evaluate background count rate.

6.3.3.1 If the background exceeds 30,000 cpm, notify EA & DP and request clearance to move to an area of lower background.

6.3.4 Note and record the background count rate in Column 7 (in cpm) on the Field Monitoring Team Log.

6.4 Perform field screening of the sample media.

CAUTION

Handle sample media in a manner that minimizes cross-contamination of sample media or the removal of activity from the sample media. As example:

Handle all sample media by the edges.

Place, do not slide, sample media into sample bags.

Do not shake sample bags, or squeeze sample bags together.

6.4.1 Remove the sample media from the sample holder.

6.4.2 Count the filter paper and the iodine cartridge separately.

6.4.2.1 Place the filter paper on a clean surface.

6.4.2.2 Hold the HP210 probe about 0.5 inches above the filter paper.

6.4.2.3 Record the gross instrument reading, in Column 5 (in cpm), on the Field Monitoring Team Log.

6.4.2.4 Place the iodine sample cartridge on a clean surface, flow arrow pointing downward.

6.4.2.5 Hold the HP210 probe about 0.5 inches above the face of the sample cartridge.

6.4.2.6 Record the gross instrument reading, in Column 6 (in cpm), on the Field Monitoring Team Log.

6.5 On the Field Monitoring Team Log,

6.5.1 Record the sample volume in Column 8 (in cu ft),.

6.5.2 Circle the iodine sample type, if applicable, in Column 9.

6.5.3 Record the team member SRD readings in Columns 10 and 11. (in mR)

6.6 When all measurements required at this location have been obtained, report the data (blocks 1 - 11) to EA & DP. Await further instructions.

E. FINAL CONDITIONS

1.0 All sample media are properly bagged, labeled, and have been returned to the station for possible laboratory analysis.

2.0 All survey logs are complete, and signed by the team leader.

3.0 Survey logs shall be attached to this procedure, and the procedure forwarded to the EA & DP Coordinator in the TSC/EOF, and then upon termination of the emergency, to the Communications and Records Coordinator.

4.0 If the team has been directed to turnover to a relief team, the oncoming monitoring team has been briefed by the off-going team regarding the status of monitoring equipment, supplies, the vehicle, and other pertinent information.

5.0 If the team has been directed to return to the station without turnover, all monitoring equipment, including the vehicle, has been returned to the original storage location, or another location designated by EA & DP.

6.0 Procedure Complete

6.1 Date/Time: _____

6.2 Team Leader: _____

F. REFERENCES

1.0 "Airborne Radioactivity Sampling" HPM RP 7.3

2.0 Portable Air Samplers - Model H-809C, H-809V, H-809B2 (RADECO). HPM RIP-6.6

3.0 Condition Report #00-2202

4.0 Condition Report #02-03520

5.0 Condition Report #02-03436

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G. ATTACHMENTS

1.0 Worksheet 2.3-1, Field Monitoring Team Log

2.0 NW Offsite Survey Map

3.0 SW Offsite Survey Map

4.0 SE Offsite Survey Map

5.0 NE Offsite Survey Map

6.0 Air Sample Record Card

7.0 Radio Protocol

ATTACHMENT 1 (1 of 2)
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WORKSHEET 2.3-1, FIELD MONITORING TEAM LOG

Field Monitoring Team Log

Gas Tank	Team	Route	Date
E F	1 2 3 4 ____ ONSITE / OFFSITE	5 mi 10 mi n/a NW NE SE SW n/a	

Survey Point	Time	Dose Rate, mR/hr CLOSED WINDOW	Dose Rate, mR/hr OPEN WINDOW	E140N Field Screening, cpm Gross Particulate	Gross Iodine	Bkgrd	Sample Vol. cu.ft.	Cart. Type	Team SRD, mR Member	Member	Remarks
1	2	3	4	5	6	7	8	9	10	11	
								sz/c			
								sz/c			
								sz/c			
								sz/c			
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EXAMPLE

2.3-1F 8/90

Team Members (name & badge #)		Instrument Serial Numbers				Team Leader
#1	#2	B-G	E140N	Air Sampler	Other	Signature

ATTACHMENT 1 (2 OF 2)
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INSTRUCTIONS

One Time Entries

a. GAS TANK -- Enter the gas tank level at the start of monitoring.

b. TEAM -- Circle the appropriate team designation(s).

c. ROUTE -- If assigned a specific route, circle the distance and quadrant designations. IF NOT, circle "N/A".

d. DATE -- Enter the current date.

e. TEAM MEMBERS -- Enter the name and badge number of the team members. Member #1 should be the team leader.

f. INSTRUMENT SERIAL NUMBERS -- Enter the serial numbers of the instruments that will be used.

g. TEAM LEADER -- The team leader signs the form when the form is complete.

For Each Survey Point

1. SURVEY POINT -- Enter the survey point designation, (e.g., A.1.1. If a non-standard survey location, enter an asterisk in Column 1 and put a description of the location in the remarks section.

2. TIME -- Enter the time that the measurements were taken. For air samples, use the start time of the sampling period.

3,4 DOSE RATE -- Enter the closed window B-G dose rate in mR/hr and the open window B-G dose rate in mR/hr in Columns 3 and 4 respectively.

5,6,7 FIELD SCREENING -- Enter the gross count rates for particulate and iodine samples, and the background count rate, in cpm, in Columns 5, 6 and 7 as appropriate.

8. SAMPLE VOLUME -- Enter the air sample volume in Column 8.

9. CARTRIDGE TYPE -- Circle the iodine sample media type in Column 9.

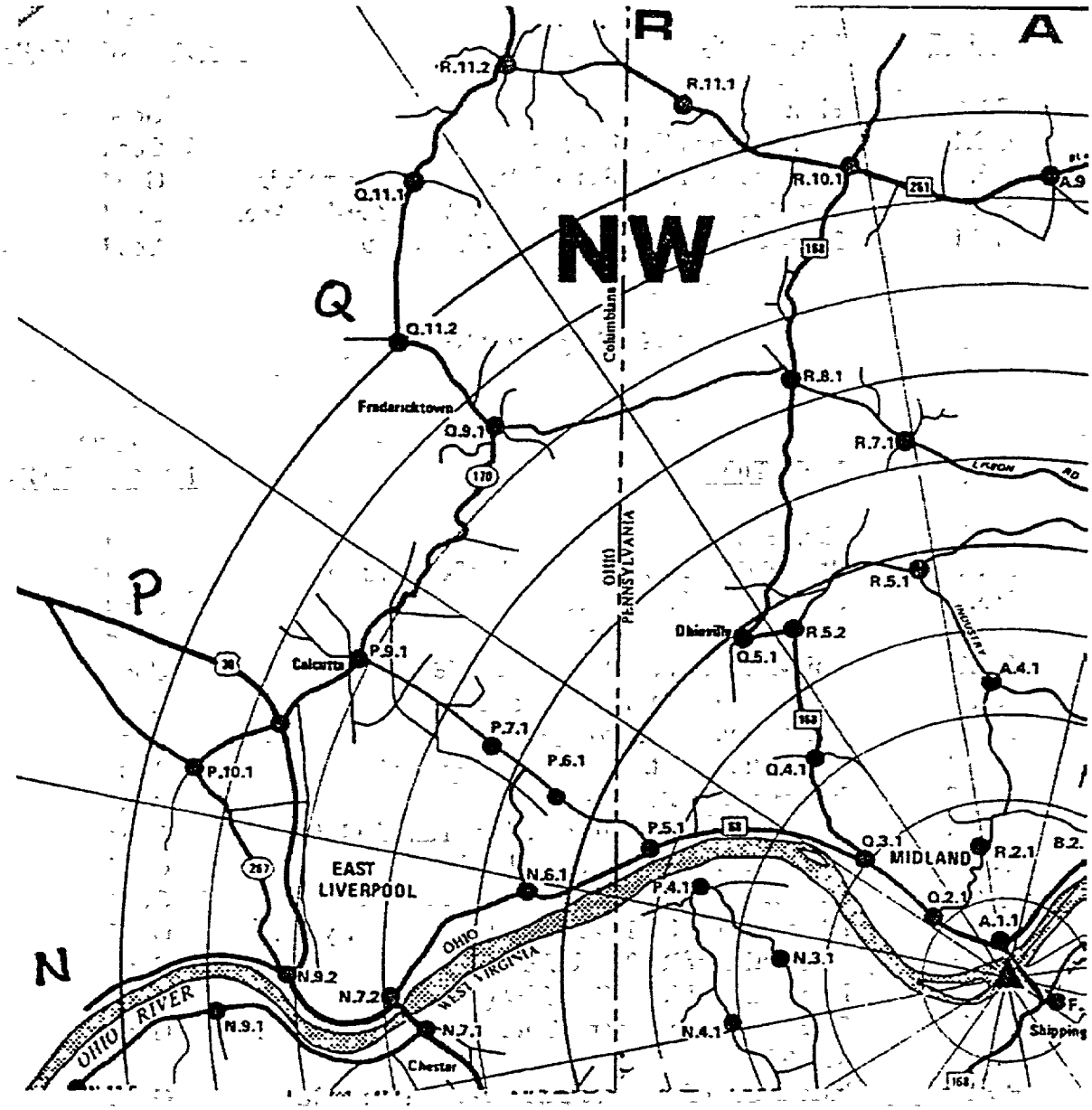
10,11 TEAM SRD, mR/hr -- Enter the team members self-reading dosimeter dose in Columns 10 and 11. Use Column 10 for team member #1 identified at the bottom of the log and Column 11 for team member #2.

12. Enter any remarks necessary in the Remarks Column.

NOTE: When reporting these data back to EA & DP, report the data by Column number and value. For example: "...Column 1 A point 1 point 1, Column 2 fourteen hundred, Column 3 zero point zero one, Column 2 zero point zero three, Column 5 none..." Use "none" to report any Columns for which data were not collected.

ATTACHMENT 2 (1 of 3)

NW OFFSITE SURVEY MAP



ATTACHMENT 2 (2 of 3)

NORTHWEST 5 MILE ROUTE

POINT	LOCATION	RADIO COMMUNICATION
F.1.1	Plant Entrance	Good
Q.3.1	Intersection of Rt's 168 & 68	Good
P.5.1	Intersection of Rt. 68 and Calcutta-Smith Ferry Rd.	Good
P.6.1	Top of Hill Calcutta-Smith Ferry Rd. and Fisher Ave.	Good
N.6.1	Intersection of Parkway Rd. & Ohio Rt. 39	Good

NORTHWEST 10 MILE ROUTE

POINT	LOCATION	RADIO COMMUNICATION
F.1.1	Plant Entrance	Good
A.1.1	Rt. 168 Bridge on Midland side of Ohio River	Good
Q.3.1	Intersection of Rt. 168 & 68	Good
Q.4.1	Rt. 168 & Eastwood Dr.	Good
Q.5.1	Ohioville Vol. Fire Dept. off Rt. 168	Good
R.8.1	Intersection of Rt. 168 & Lisbon Rd.	Good
R.10.1	Intersection of Rt's 251 & 168	Fair
R.11.1	Intersection of Rt. 251 & State Gamelands Rd.	Poor
R.11.2	Intersection of Rt's 170 & 251	Poor
Q.11.1	Intersection of Rt. 170 & Clarkson Pancake Rd.	Good
Q.11.2	Intersection of Rt. 170 & Frederickstown Clarkson Rd.	Good
Q.9.1	Intersection of Rt. 170 & Frederickstown Rd.	Good
P.9.1	Intersection of Rt. 170 & Calcutta-Smith Ferry Rd.	Good
P.10.1	Intersection of Rt. 267 & T928 (Irish-Ridge Rd)	Good
N.9.2	Intersection of Rt's 267 & 39/7 (School)	Fair
N.7.2	Emergency stopping area before Ohio/W.Va. Bridge Rt. 30	Good
P.5.1	Intersection of Rt. 68 & Calcutta-Smith Ferry Rd.	Good

ATTACHMENT 2 (3 of 3)

NORTHWEST ROUTE

POINT	LOCATION	RADIO COMMUNICATION
F.1.1	Plant Entrance	Good
A.1.1	Rt. 168 Bridge on Midland Side of Ohio River	Good
Q.3.1	Intersection of Rt. 168 & 68	Good
P.6.1	Top of Hill Calcutta-Smith Ferry Rd. and Fisher Ave.	Good
N.6.1	Intersection of Parkway Road & Ohio Rt. 39	Poor
Q.4.1	Entrance to Meadowbrook Estates, Rt. 168 & Eastwood Dr.	Good
Q.5.2	Intersection of Tuscarawas Rd. and Rte. 168	Good
Q.5.1	Ohioville Vol. Fire Dept. off Rt. 168	Good
R.8.1	Intersection of Rt. 168 & Lisbon Rd.	Good
R.10.1	Intersection of Rt's 251 & 168	Fair
R.11.1	Intersection of Rt. 251 & State Gamelands Rd.	Poor
R.11.2	Intersection of Rt's 170 & 154	Poor
Q.11.1	Intersection of Rt. 170 & Clarkson Pancake Rd.	Good
Q.11.2	Intersection of Rt. 170 & Fredrickstown Clarkson Rd.	Good
Q.9.1	Intersection of Rt. 170 & Frederickstown Rd.	Poor
P.9.1	Intersection of Rt. 170 & Calcutta-Smith Ferry Rd.	Good
P.10.1	Intersection of Rt. 267 & T928 (Irish-Ridge Rd)	Good
N.9.2	Intersection of Rt's 267 & 39/7 (School)	Good
N.7.2	Emergency stopping area before Ohio/W.Va. Bridge Rt. 30	Good
P.5.1	Intersection of Rt. 68 & Calcutta-Smith Ferry Rd.	Good
P.6.1	Top of hill Calcutta-Smith Ferry Rd. and Fisher Ave.	Good
P.7.1	Calcutta Church (Calcutta-Smith Ferry Rd.)	Good

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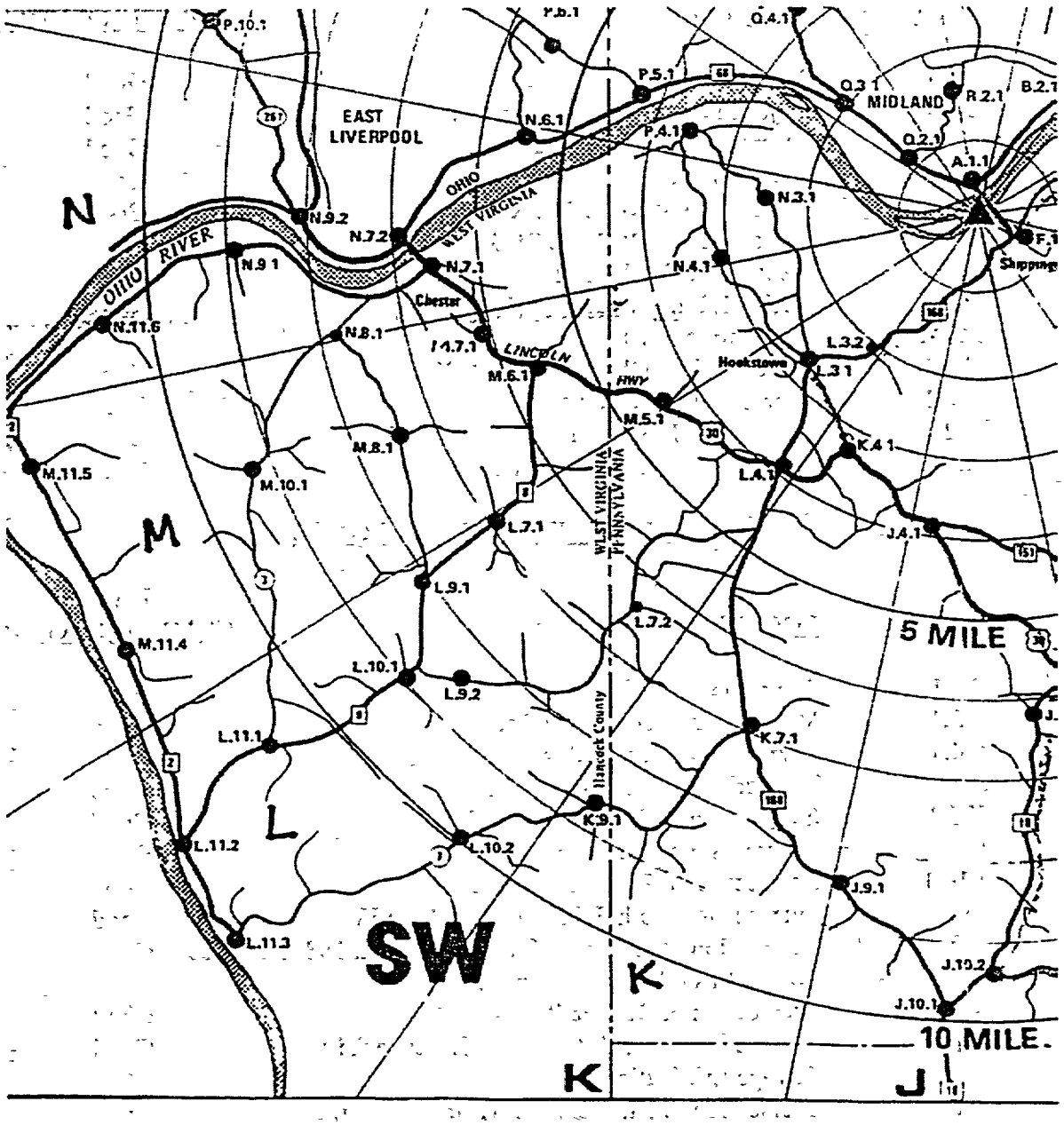
ATTACHMENT 3 (1 of 4)

SW OFFSITE SURVEY MAP



ATTACHMENT 3 (2 of 4)

SOUTHWEST 5 MILE ROUTE

POINT	LOCATION	RADIO COMMUNICATION
F.1.1	Plant Entrance	Good
L.3.1	Major Intersection in Hookstown	Good
L.4.1	Intersection of Rt. 168 & Rt. 30	Good
J.4.1	Intersection of Rt. 30 & Tr. 151	Good
H.5.1	Intersection of Rt. 151 & Rt. 18	Good
H.6.2	Intersection of Rt. 18 & Rt. 30	Fair
M.5.1	West on Rt. 30, 1.2 miles Past L.4.1 or East on Rt. 30, 1.2 miles Past M.6.1	Good
M.6.1	Intersection of Rt. 30 & Rt. 8	Good
N.7.1	West Virginia-Ohio Bridge, Rt. 30	Good
N.6.1	Intersection of Rt. 39 & Parkway	Good
Q.2.1	Entrance to J&L Steel, Rt. 68 Midland	Good
A.1.1	Midland Side of Rt. 168 Bridge	Good

SOUTHWEST 10 MILE ROUTE

POINT	LOCATION	RADIO COMMUNICATION
F.1.1	Plant Entrance	Good
L.3.1	Major Intersection in Hookstown	Good
L.4.1	Intersection of Rt. 168 & Rt. 30	Good
J.4.1	Intersection of Rt. 30 & Tr. 151	Good
H.5.1	Intersection of Rt. 151 & Rt. 18	Good
H.6.2	Intersection of Rt. 18 & Rt. 30	Fair
J.10.1	Intersection of Rt. 18 & Rt. 168	Good
J.9.1	Entrance to Youth Forestry Camp Rt. 168	Good
K.7.1	Intersection of Hanover-Kendal Rd. & Rt. 168, 2.7 miles from J.9.1 or 3.3 miles from L.A.1	Good
K.9.1	Intersection of Rt. 7 & Rt. 24	Good
L.10.2	Intersection of Rt. 7 & Rt. 26, (Florence Rd.) Sewage Lift Station	Good
L.11.3	Intersection of Rt. 2 & Rt. 7, (Hardin's Run)	Fair

ATTACHMENT 3 (3 of 4)

SOUTHWEST 10 MILE ROUTE

POINT	LOCATION	RADIO COMMUNICATION
L.11.2	Intersection of Rt. 2 & Rt. 8	Good
M.11.4	Bridge of Tomlinson Lake, Rt. 2	Good
M.11.5	Intersection of Rt. 2 & Rt. 208	Good
N.11.6	Intersection of Rt. 2 & Rt. 3/6, R.R. Crossing	Good
N.9.1	Intersection of Rt. 2 & Rt. 1	Good
N.7.1	West Virginia-Ohio Bridge, Rt. 30	Good
N.6.1	Intersection of Rt. 39 & Parkway	Good
Q.2.1	Entrance to J&L Steel Rt. 68 Midland	Good
A.1.1	Midland Side of Rt. 168 Bridge over Ohio	Good
L.4.1	Intersection of Rt. 168 & Rt. 30	Good

SOUTHWEST ROUTE

POINT	LOCATION	RADIO COMMUNICATION
F.1.1	Plant Entrance	Good
L.3.1	Major Intersection in Hookstown	Good
L.4.1	Intersection of Rt. 168 & Rt. 30	Good
J.4.1	Intersection of Rt. 30 & Tr. 151	Good
H.5.1	Intersection of Rt. 151 & Rt. 18	Good
H.6.2	Intersection of Rt. 18 & Rt. 30	Fair
J.10.1	Intersection of Rt. 18 & Rt. 168	Good
J.9.1	Entrance to Youth Forestry Camp Rt. 168	Good
K.7.1	Intersection of Hanover Rd. & Rt. 18, 2.7 miles from L.4.1	Good
M.5.1	West on Rt. 30, 1.2 miles Past L.4.1 or East or East on Rt. 30, 1.2 miles Past M.6.1	Good
M.6.1	Intersection of Rt. 30 & Rt. 8	Good
N.7.1	West Virginia-Ohio Bridge, Rt. 30	Good
A.1.1	Midland Side of Rt. 168 Bridge	Good
Q.2.1	Entrance to J&L Steel, Rt. 68 Midland	Good
N.6.1	Intersection of Rt. 39 & Parkway Rd.	Good

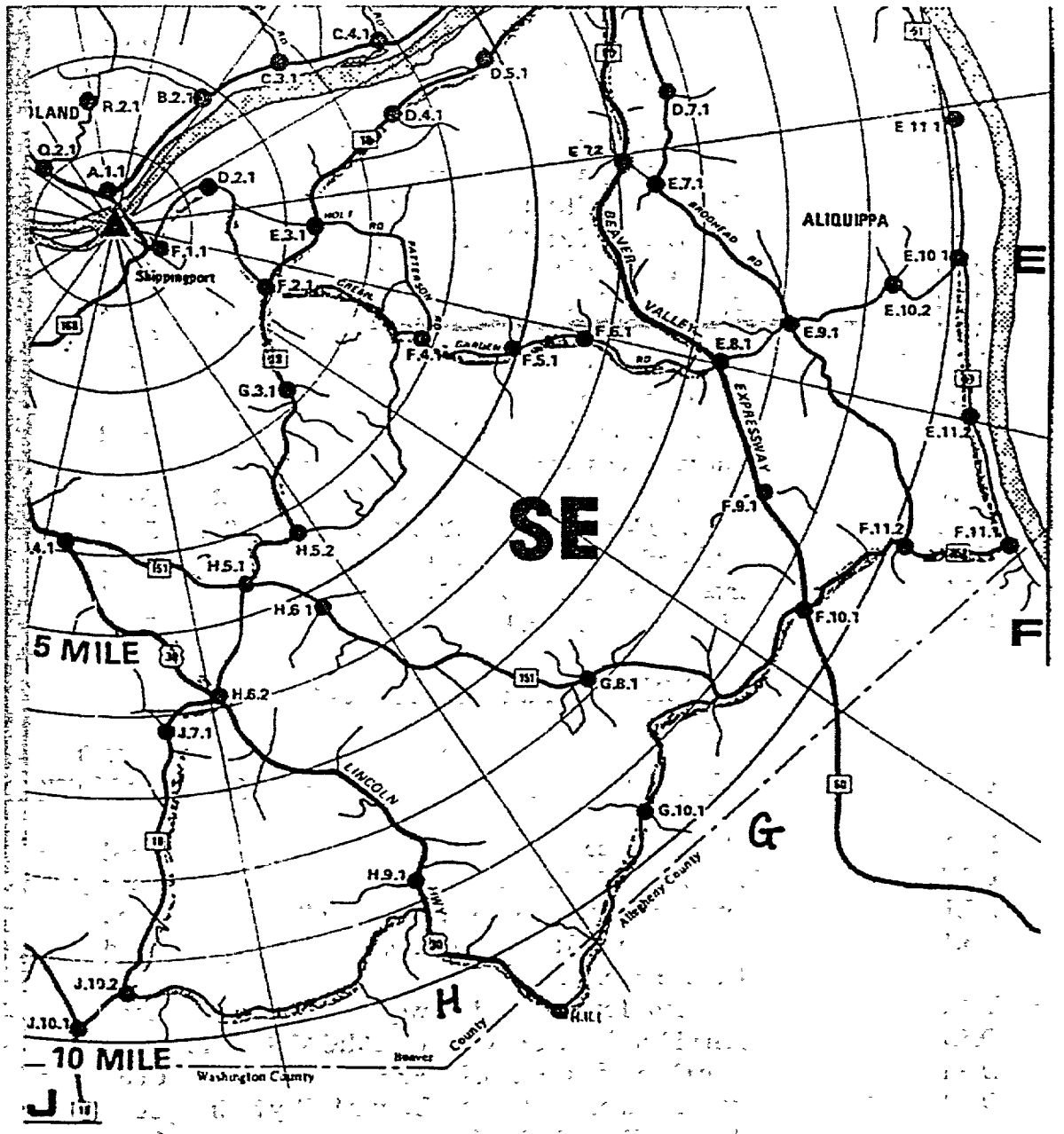
ATTACHMENT 3 (4 of 4)

SOUTHWEST ROUTE

POINT	LOCATION	RADIO COMMUNICATION
N.4.1	Second Bridge Past Hookstown Intersection	Good
P.4.1	Georgetown Sand & Gravel	Good
N.3.1	Top of Hill Next to DLCO Radio Tower	Good
L.7.1	Intersection of Rt. 8 & Rt. 14	Good
L.9.1	Intersection of Rt. 8 & Rt. 5	Good
L.10.1	Tomlinson Run State Park Entrance, Rt. 8	Good
L.11.1	Intersection of Rt. 8 & Rt. 3	Good
L.9.2	Oak Glen High School, County Rd. 18	Good
L.7.2	Intersection of Pumpkin Hollow Rd. & Gas Valley Rd.	Fair
N.9.1	Intersection of Rt. 2 & Rt. 1	Good
N.11.6	Intersection of Rt. 2 & Rt. 3/6, RR Crossing	Good
M.11.5	Intersection of Rt. 2 & Rt. 208	Good
M.11.4	Bridge Over Tomlinson Lake, Rt. 2	Good
L.11.2	Intersection of Rt. 2 & Rt. 8	Good
L.11.3	Intersection of Rt. 2 & Rt. 7, (Hardin's Run)	Fair
L.10.2	Intersection of Rt. 7 & Rt. 26, (Florence Rd.)	Good
K.9.1	Intersection of Rt. 7 & Rt. 24	Good
M.10.1	Intersection of Rt. 3 & Rt. 208	Good
N.8.1	Intersection of Rt. 3/2 & Rt. 5	Good
M.8.1	Intersection of Rt. 5 & Rt. 208	Good

ATTACHMENT 4 (1 of 4)

SE OFFSITE SURVEY MAP



ATTACHMENT 4 (2 of 4)

SOUTHEAST 5 MILE ROUTE

POINT	LOCATION	RADIO COMMUNICATION
F.1.1	Plant Entrance	Good
D.2.1	Bruce Mansfield Plant Entrance	Good
F.2.1	Intersection of Rt. 18 & Green Garden Rd.	Good
E.3.1	Intersection of Rt. 18 & Holt Rd.	Good
D.4.1	"Y" in road at Rt. 18 and Mowry Rd.	Good
D.5.1	Main Plant Entrance NOVA CHEMICALS, Rt. 18	Good
D.6.1	Zinc Corp. of American Entrance, Rt. 18	Good
E.7.2	Center Exit of Rt. 60	Good
E.8.1	Aliquippa Exit of Rt. 60	Good
F.6.1	Intersection of Penny Hollow Park Rd. & Green Garden Road	Good
F.4.1	Intersection of Green Garden Rd. & Patterson Rd.	Good
G.3.1	Superior Mobile Homes, Rt. 18 and Calhoun Rd.	Good
H.5.1	Intersection of Rt's 18 & 151	Good
J.4.1	Intersection of Rt's 30 & 151	Good
L.3.1	Main Intersection in Hookstown	Good

SOUTHEAST 10 MILE ROUTE

POINT	LOCATION	RADIO COMMUNICATION
F.1.1	Plant Entrance	Good
D.2.1	Bruce Mansfield Plant Entrance	Good
F.2.1	Intersection of Rt. 18 & Green Garden Rd.	Good
E.3.1	Intersection of Rt. 18 & Holt Rd. 1.1 mile from F2.1	Good
D.4.1	"Y" in road at Rt. 18 and Mowry Rd.	Good
D.5.1	Main Plant Entrance NOVA CHEMICALS, Rt. 18	Good
D.6.1	Zinc Corp. of American, Rt. 18	Good
D.8.1	Intersection of Rt's 18 & 51, Beaver Valley Mall	Good
D.9.1	Walmart Plaza, Rt. 18/51	Good

ATTACHMENT 4 (3 of 4)

SOUTHEAST 10 MILE ROUTE

POINT	LOCATION	RADIO COMMUNICATION
D.10.1	Pheonix Glass Parking Lot, Penn Ave., Monaca	Good
D.10.2	Intersection of Constitution Blvd. and Monaca Rd.	Good
E.11.1	Entrance to West Aliquippa, Constitution Blvd.	Good
E.10.1	Intersection of Constitution & Franklin Ave. (Old Entrance to J&L Steel Plant)	Good
E.10.2	Intersection of Franklin Ave. & Kennedy Blvd., Aliq.	Good
E.11.2	Ambridge-Aliquippa Bridge, Constitution Blvd.	Fair
F.11.1	Phillips Power Station, Constitution Blvd./Rt. 51	Poor
F.11.2	Intersection of Rt's 51 & 151	Good
F.10.1	Intersection of Rt's 151 & 60, 60 overpasses 151	Good
G.10.1	2nd Intersection Past Booktown (off Rt. 151)	Good
H.11.1	Janoskis Farm Rt. 30 - Allegheny Co.	Fair
H.9.1	Raccoon Park Entrance, Rt. 30	Fair
J.10.1	Intersection of Rt's 18 & 168	Good
H.6.2	Intersection of Rt's 18 & 30	Fair
J.4.1	Intersection of Rt's 30 & 151	Good
L.3.1	Main Intersection in Hookstown	Good

SOUTHEAST ROUTE

POINT	LOCATION	RADIO COMMUNICATION
F.1.1	Plant Entrance	Good
D.2.1	Bruce Mansfield Plant Entrance, Rt. 18	Good
F.2.1	Intersection of Rt. 18 & Green Garden Rd.	Good
E.3.1	Intersection of Rt. 18 & Holt Rd.	Good
D.4.1	"Y" in road at Rt. 18 and Mowry Rd.	Good
D.5.1	Main Plant Entrance NOVA CHEMICALS, Rt. 18	Poor
D.8.1	Intersection of Rt's 18 & 51, Beaver Valley Mall	Good
D.9.1	Walmart Plaza, Rt. 18/51	Good
D.10.1	Pheonix Glass Parking Lot, Penn Ave., Monaca	Good

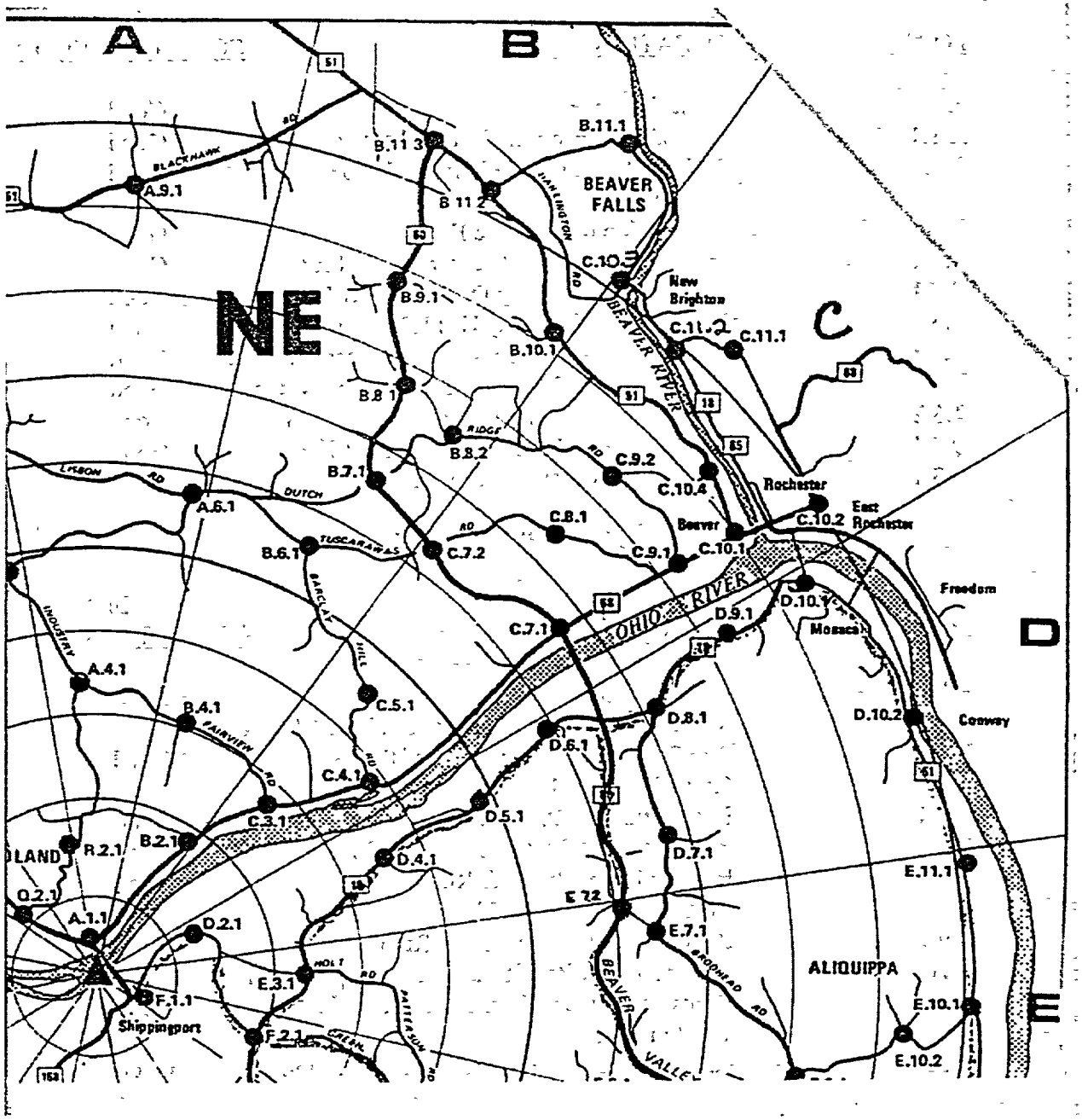
ATTACHMENT 4 (4 of 4)

SOUTHEAST ROUTE (Continued)

POINT	LOCATION	RADIO COMMUNICATION
D.10.2	Intersection of Constitution Blvd. and Monaca Rd.	Good
E.9.1	Intersection of Brodhead Rd. and Kennedy Blvd.	Good
E.11.1	Entrance to West Aliquippa, Constitution Blvd.	Good
E.10.1	Entrance to Aliquippa from Constitution Blvd.	Good
E.10.2	Inter. of Franklin Ave. & Kennedy Blvd., Aliq	Good
E.11.2	Ambridge-Aliquippa Bridge, Constitution Blvd.	Fair
F.11.1	Phillips Power Station, Constitution Blvd./Rt. 51	Poor
F.11.2	Intersection of Rt's 51 & 151	Good
F.10.1	Intersection of Rt. 151 and Rt. 60, 60 overpasses 151.	Good
H.11.1	Mazzaro Coal- right side Rt. 30 - Allegheny Co.	Fair
H.9.1	Raccoon Park Entrance, Rt. 30	Fair
J.10.1	Intersection of Rt's 18 & 168	Good
G.8.1	Steel Bridge on Rt. 151	Good
H.6.1	2 Miles east from 18 & 151 Intersection or 2 Miles west on Rt. 151 from G.8.1	Good
H.5.1	Intersection of Rt's 151 & 18	Good
H.6.2	Intersection of Rt's 18 & 30	Fair
G.3.1	Superior Mobile Homes, Rt. 18 and Calhoun Rd.	Good
L.3.1	Main Intersection in Hookstown	Good
D.7.1	Entrance to Community College of Beaver County, Brodhead Road	Good
E.7.1	BCTA Expressway Travel Center off of Rt. 60 Ramp	Good
E.7.2	Center Exit of Rt. 60	Good
F.9.1	Bridge on Rt. 60, 1.6 miles north of Hopewell exit	Good
E.8.1	Aliquippa Exit of Rt. 60	Good
F.6.1	Penny Hollow Park Rd. & Green Garden Rd.	Good
F.4.1	Intersection of Green Garden Rd. & Patterson Rd.	Good
G.10.1	2nd Intersection past Booktown (off Rt. 151)	Good

ATTACHMENT 5 (1 of 4)

NE OFFSITE SURVEY MAP



ATTACHMENT 5 (2 of 4)

NORTHEAST 5 MILE ROUTE

POINT	LOCATION	RADIO COMMUNICATION
F.1.1	Plant Entrance	Good
A.1.1	Rt. 168 Bridge on the Midland side of Ohio River	Good
B.2.1	Red Brick Bldg. on left side of Rt. 68, 1.5 m from A.1.1	Good
C.3.1	Intersection of Rt. 68 & Engle Rd.	Good
C.4.1	Intersection of Rt. 68 & Barclay Hill Rd.	Good
C.5.1	Inter. of John E. Gray Dr. & Barclay Hill Rd.	Good
B.6.1	Intersection of Barclay Hill Rd. & Tuscarawas Rd.	Good
A.6.1	Intersection of Lisbon Rd. and Tuscarawas Rd.	Good
R.5.1	Intersection of Engle Rd. & Tuscarawas Road	Good
R.5.2	Intersection of Tuscarawas Rd. & Rt. 168	Good
Q.4.1	Intersection on Rt. 168, Eastwood Rd.	Good
Q.3.1	Intersection of Rt. 168 and Rt. 68	Good

NORTHEAST 10 MILE ROUTE

POINT	LOCATION	RADIO COMMUNICATION
F.1.1	Plant Entrance	Good
A.1.1	Rt. 168 Bridge on the Midland side of Ohio River	Good
B.2.1	Red Brick Bldg. on left side of Rt. 68, 1.5 m from A.1.1	Good
C.3.1	Intersection of Rt. 68 & Engle Rd.	Good
C.4.1	Intersection of Rt. 68 & Barclay Hill Rd.	Good
C.7.1	Intersection of Rt. 68 & Rt. 60 Rt. 68 overpasses Rt. 60	Good
C.9.1	Beaver County Courthouse, Rt. 68	Good
C.10.1	Intersection of Rt's 68 & 51, 68 overpasses 51	Good
C.10.2	Huntsman Funeral Home at right angle bend in Rt. 68	Good
C.11.1	Four way intersection at bottom of Marion Hill	Good

ATTACHMENT 5 (3 of 4)

NORTHEAST 10 MILE ROUTE (Continued)

POINT	LOCATION	RADIO COMMUNICATION
C.10.3	Morrow Ford across bridge over Beaver River, Rt. 18	Good
B.11.1	3 way inter. at Geneva College Athletic complex	Fair
B.11.3	Intersection of Rt's 60 & 51 at Chippewa	Fair
C.11.2	Diamond Milling near N. Brighton/ Beaver Falls Bridge	Good
C.10.4	Inter. of Rt 51 & Sharon Rd.	Good
A.9.1	Blackhawk Public Golf Course, Rt. 251	Good
R.10.1	Intersection of Rt's 251 & 168	Fair
R.8.1	Intersection of Lisbon Rd. & Rt. 168	Good
Q.5.1	Ohioville Vol. Fire Dept., Rt. 168	Good
Q.4.1	Intersection on Rt. 168, 2.3m from Q.5.1	Good
Q.3.1	Intersection of Rt's 168 & 68, Midland	Good

NORTHEAST ROUTE

POINT	LOCATION	RADIO COMMUNICATION
F.1.1	Plant Entrance	Good
Q.3.1	Intersection of Rt's 168 & 68, Midland	Good
A.1.1	Rt. 168 Bridge on the Midland side of Ohio River	Good
B.2.1	Red Brick Bldg. on left side of Rt. 68, 1.5 m from A.1.1	Good
C.3.1	Intersection of Rt. 68 & Industry Engle Rd.	Good
C.4.1	Intersection of Rt. 68 & Barclay Hill Rd.	Good
C.7.1	Intersection of Rt. 68 & Rt. 60 Rt. 68 overpasses Rt. 60	Good
C.9.1	Beaver County Courthouse, Rt. 68	Good
C.10.1	Intersection of Rt's 68 & 51, 68 overpasses 51	Good
C.10.2	Huntsman Funeral Home at right angle bend in Rt. 68	Good

ATTACHMENT 5 (4 of 4)

NORTHEAST ROUTE (Continued)

POINT	LOCATION	RADIO COMMUNICATION
C.10.3	Morrow Ford across bridge over Beaver River, Rt. 18	Good
B.11.1	Three-way Inter. at Geneva College Athletic Complex	Good
B.11.2	Intersection of Rt's 588 & 51	Good
B.10.1	Top of Fallston Hill Golf Course	Good
C.10.4	Intersection of Rt. 51 and Beaver Hollow Rd.	Good
C.8.1	Top of Hill on Tuscarawas Rd. at Walington Estates	Good
C.7.2	Intersection of Tuscarawas Rd. and Rt. 60	Good
C.5.1	Inter. of John E. Gray Dr. & Barclay Hill Rd.	Good
B.6.1	Intersection of Barclay Hill Rd. & Tuscarawas Rd.	Good
A.6.1	Intersection of Lisbon Rd. and Tuscarawas Rd.	Good
R.7.1	Intersection on Lisbon Rd. & Ridgemont Rd.	Good
R.8.1	Intersection of Lisbon Rd. & Rt. 168	Good
R.10.1	Intersection of Rt's 168 & 251	Poor
A.9.1	Blackhawk Public Golf Course, Rt. 251	Poor
Q.5.1	Ohioville Vol. Fire Dept., Rt. 168	Good
Q.4.1	Intersection on Rt. 168 & Eastwood Rd.	Good
Q.3.1	Intersection of Rt's 168 & 68	Good
B.11.3	Intersection of Rt's 60 & 51	Fair
B.9.1	Bridge on Rt. 60 over Brady's Run County Park	Good
B.7.1	Intersection of Dutch Ridge Rd. and Rt. 60	Good
C.7.2	Intersection of Tuscarawas Rd. and Rt. 60	Good
B.4.1	Western Beaver High School	Good
C.9.2	Beaver County Medical Center--Dutch Ridge Rd.	Good
R.5.1	Intersection of Engle Rd. & Tuscarawas Rd.	Good
R.5.2	Intersection of Tuscarawas Rd. and Rt. 168	Good

ATTACHMENT 6 (1 of 1)

AIR SAMPLE RECORD CARD

Air sample locations: _____

Date: _____ Surveyor: _____

Sampler ID# _____

Sampler Flow Rate ft^3/min _____

Sample time: (10 ft^3 /Sampler Flow Rate cfm) - _____

Sample Start Time: _____ Stop Time: _____

Sample Volume: _____

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ATTACHMENT 7 (1 of 2)

RADIO PROTOCOL

Because radio communications is one way at a time (unlike a telephone), the use of a standard protocol is necessary to minimize confusion, speed operation and insure accurate transfer of information.

1) Begin a transmission with the name of the receiving party followed by the name of the transmitting party. For example, "Beaver Valley EA & DP this is Field Monitoring Team One, over". Wait for the receiving party to acknowledge before relaying data. During a series of exchanges, terminate each transmission with "over" to indicate to the other person that they may transmit. End the final transmission of a series with an appropriate termination phrase. For example, "Monitoring Team One out".

2) Controlling group (EA & DP, OSC) communicators must avoid general statements such as, "Monitoring teams report your dosimeter readings". This can result in confusion due to simultaneous transmissions by two or more teams. Direct such inquiries to each team in sequence. The only exception to this is if no response is needed from the individual teams.

3) Certain letters of the alphabet can be confused when said (V and B, P and B, as examples). When spelling words for clarity or giving alphabetic designators, use the standard international phonetic alphabet shown in Step 7. Monitoring locations D.2.1 becomes "Delta point two point one". For a word like bat., say "I spell-bravo, alpha, tango", giving the phonetics slowly.

4) Give numerical information as digits rather than reading it as a number. 2432 becomes two, four, three, two rather than two thousand four hundred thirty two. 35.7 becomes three, five, point, seven rather than thirty five and seven tenths.

5) Report data as specified in the Field Monitoring EPP/IPs - that is by block location on the forms and without units such as mR/hr., cubic ft., or cpm. If units <u>must</u> be given, say them out - millirem per hour, counts per minute, etc. Avoid jargon and abbreviations.

6) Insure correct data transferal by obtaining repeat backs of all data sent and provide repeat back or acknowledgment of messages received. (Three-way Communication)

ATTACHMENT 7 (2 of 2)
A5.715EA

RADIO PROTOCOL

7) Avoid exclamatory or alarming statements. When you press the microphone button, you are making a public announcement because of the many scanners that can receive business band communications.

INTERNATIONAL PHONETIC ALPHABET

A-ALPHA	J-JULIETT	S-SIERRA
B-BRAVO	K-KILO	T-TANGO
C-CHARLIE	L-LIMA	U-UNIFORM
D-DELTA	M-MIKE	V-VICTOR
E-ECHO	N-NOVEMBER	W-WHISKEY
F-FOXTROT	O-OSCAR	X-XRAY
G-GULF	P-PAPA	Y-YANKEE
H-HOTEL	Q-QUEBEC	Z-ZULU
I-INDIA	R-ROMEO	