

RADIO AND CELLULAR PHONE USAGE

Purpose

This Water Quality and Hydrology Group (RRES-WQH) procedure describes the requirements for the use of non-government and government-owned cellular phones and assists workers in identifying and controlling hazards associated with routine usage of two-way hand held VHF radios and portable cellular phones.

Scope

This procedure applies to **all** RRES-WQH personnel (including contract or subcontract employees and students) performing work associated with RRES-WQH work activities.

In this procedure

This procedure addresses the following major topics:

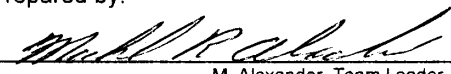
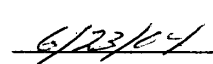
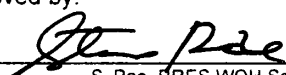
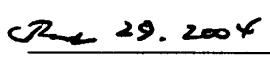
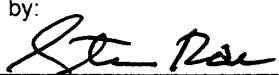
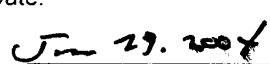
Topic	See Page
General Information About This Procedure	2
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Battery Disposal	7

Hazard Control Plan

The hazard evaluation associated with this work is documented in Attachment 1: Initial risk = **minimal**. Residual risk = **minimal**. Work permits required: **none**.

Signatures

First authorization review date is one year from group leader signature below; subsequent authorizations are on file in group office.

Prepared by:  M. Alexander, Team Leader	Date: 
Approved by:  S. Rae, RRES-WQH Safety Committee Chair	Date: 
Approved by:  S. Rae, RRES-WQH Group Leader	Date: 

CONTROLLED DOCUMENT

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General information

Attachments This procedure has the following attachments:

Number	Attachment Title	No. of pages
1	Hazard Control Plan	3
2	Enhanced Communication Form	1

History of revisions

This table lists the revision history and effective dates of this procedure.

Revision	Date	Description Of Changes
1	4/00	New document.
2	10/01	Annual review
3	7/03	Annual review
4	6/04	Annual review

Training method

The training method for this procedure is “self-study” (reading) of this SOP and is documented in accordance with the procedure for training (RRES-WQH-QP-024).

Operators of radios and cellular telephones will follow manufactures usage specifications and will report any malfunctions to their supervisor.

Operators shall be trained in the proper radio usage rules and protocol that apply to communications at the Laboratory.

Material, equipment, conditions

RRES-WQH activities require personnel to work in the field and or conduct sampling activities at areas of “effective isolation”. As a matter of standard practice, RRES-WQH requires that field personnel use portable radios and/or cellular phones to maintain communication with RRES-WQH Group Office, supervisors, or a reliable contact person in the event of an emergency.

Material, equipment, and/or conditions normally encountered when performing fieldwork communications that may expose the worker to hazards include:

- Portable cellular telephone
- Ericsson General Electric M-PA and M-RK SCAN portable radio
- Satellite telephone

Cellular Phone Operation on Laboratory Property

Policy Government-owned cellular phones are property of the government and are to be used to conduct official Government business only. Unauthorized use or misuse of a cellular phone shall result in a security infraction and shall be subject to review by the technical surveillance countermeasures (TSCM) representative.

Always be cognizant of the rules for operating government-owned and nongovernment cellular phones.

Using cellular phone For information on obtaining a cellular phone and use of a government-owned and nongovernment owned cellular phones at LANL, reference <http://ccn.lanl.gov/ccn4/radioshop/>.

Satellite phone use A satellite phone operates similar to the cellular phone and operates on both a digital signal and satellite transmission. When working in out of service areas for cellular phones, the satellite transmission provides reliable communication.

Satellite phones are available from the Operations Team Leader.

Safety Give full attention to driving. Safe driving is the first responsibility.

If necessary to use the cellular phone and driving conditions are not optimum, pull off the road and park before making or answering a cellular call.

Radio Use

Policy

Government-owned two-way radios are permitted within security areas unless the facility security plan restricts the possession or use of two-way radios.

The use of nongovernment two-way radios is prohibited inside or within 50 feet of the perimeter of security areas.

Rules of operation

The rules for operating a government-owned two-way radio are listed below.

- Operate two-way FM radio systems in accordance with the rules and regulations of the Federal Communications Commission (FCC).
 - Make sure that the channel is clear and that the radio display screen does not indicate the “BSY” status readout before transmitting.
 - Use proper language when “on the air”.
 - Set the radio to the WTRQTY channel, which is the main channel of operation.
 - In the event of an emergency and no one can be reached on the WTRQTY channel, use the emergency channel maintained by EM&R to broadcast a request for assistance.
-

Using radios

For information on obtaining a radio and use of the radio at LANL, reference http://ccn.lanl.gov/ccn4/radioshop/radio_manual.shtml.

Enhanced Communication

Working in areas of effective isolation

Before traveling or working alone in areas that are in effective isolation, ensure the following:

- The buddy system is not a requirement of the Hazard Control Plan or Integrated Work Document under which the work is being performed.
- The work does not involve the use of hand tools or machinery.
- Persons conducting the work are familiar with the field area.

Fieldwork should be limited to assessments, notebook/photo entries, and station computer work. An enhanced communication protocol can be used at the discretion of the Group Leader or Team Leader for working alone.

Enhanced communication protocol

Perform the following steps for enhanced communication:

Step	Action
1	Identify a Point of Contact (POC) within the team or Group Office for frequent communication by radio and cellular phone.
2	Identify all proposed work and locations to the POC. POC should be available for the duration of fieldwork and shall initiate a call in log, or Enhanced Communication Form (Attachment 2).
3	Ensure that radio, pager, and cellular phone are charged and ready for continuous use. Provide a radio check before departure with the POC.
4	Ensure that the radio and cellular phone are secured to yourself in such a manner that they will not be separated from you in the field.
5	Provide frequent communication with your POC. Examples of this type of communication include: upon arrival, upon leaving the vehicle, arrival at a location, start of work, completion of work, moving to new location, etc. Frequent communication can ensure that if an accident does happen, a time lapse of no more than 5-10 minutes would occur before a response action could be initiated.

Continued on next page.

Enhanced Communication, continued

**Enhanced
communica-
tion protocol,
cont'd**

Step	Action
6	If communication is broken: <ul style="list-style-type: none">• POC will page and request immediate communication• Field personal must respond back immediately either by radio or cellular phone (regardless of location).• If a response is not received, notify the Group Office, EM&R, and conduct a two-person search of the last known location.
7	Notify POC upon returning from the field

Note: If the POC can not complete responsibilities as outlined above, the POC is responsible for establishing a new POC for effected field personnel.

Battery Disposal

**Disposing of
rechargeable
batteries**

Rechargeable batteries are found in cell phones and 2-way radios. Rechargeable batteries are reusable and conserve materials. Rechargeable batteries are recyclable.

Contact the WQH Waste Management Coordinator to recycle unwanted Laboratory rechargeable batteries

[Click here to record self-study training to this document.](#)

HAZARD CONTROL PLAN

Scope

This plan is prepared to communicate to the radio and cellular telephone users, information on these electronic devices and to assist workers in identifying and understanding the context of potential hazards associated with the usage of this equipment and employing the measures established to control the hazards.

Potential hazards

Potential hazards associated with the work:

- A. Exposure to high/low RF power output
- B. Interruption of emergency transmission
- C. Battery hazard: fire or explosion due to short across exposed battery contacts with metallic objects.
- D. Exposure to rain or liquid

Initial risk level

For each hazard, list the likelihood and severity, and the resulting initial risk level (before any work controls are applied, a determined according to LIR300-00-01, section 7.2)

Overall *initial* risk: Minimal Low Medium High

Operational requirements

List applicable Laboratory, facility, or activity operation requirements directly related to the work:

None List:
 No List:

Work Permits required?

- American National Standards Institute, (ANSI)
- LIR 402-400-02.0 http://labreq.lanl.gov/pdfs/ops/01_operations/lir40240002.pdf, *Radio-Frequency and Microwave (RFMW) Radiation and Fields (30 kHz to 300 GHz)*

HAZARD CONTROL PLAN, continued

Mitigating hazards

Describe how the hazards listed above will be mitigated (e.g., safety equipment, administrative controls, etc.):

- A. Exposure to high/low RF power output
 - In accordance with LIR 402-400-02.0, determination has been made that:
 - the Ericsson, GE two-way hand-held radios emit less than 7 watts between 10 kHz and 1 GHz and are exempt from the RFMW exposure limits, and therefore not subject to the LIRs requirements for hazard control.
 - the Motorola, HT-1000 two-way hand-held radios emit less than 7 watts and are exempt from the RFMW exposure limits requirements for hazard control.
 - cellular phones, when operated in accordance with manufacturers usage specifications, emit less than 7 watts and are exempt from the RFMW exposure limits requirements, and therefore not subject to the LIRs requirements for hazard control.
 - Limit the duration of calls.
 - Operate the phone in the most power efficient manner. Such control measures are:
 - Extend antenna fully for maximum efficiency.
 - Hold phone as any other telephone. While speaking directly into the mouthpiece, position the antenna up and over the shoulder.
 - **DO NOT** hold the antenna when the phone is in use. Holding the antenna affects call quality and may cause the phone to operate at a higher power level than needed.
- B. Interruption of emergency transmission
 - Operators of radios are instructed to make sure that the channel is clear and that the radio display screen does not indicate the “BSY” status readout before transmitting.
 - Operators of radios are instructed in the proper language to be used when “on the air”.
- C. Battery hazard: fire or explosion due to short across exposed battery contacts with metallic objects.
 - Do not carry an exposed or removed cellular phone battery in pocket or handbag.
 - Contact the RRES Division Waste Coordinator for proper battery disposal or recycling.

HAZARD CONTROL PLAN, continued

D. Exposure to rain or liquid

- Do not expose phone or accessories to rain or other liquids.
- If the phone gets wet, turn the power off immediately and remove the battery pack.

Training

List knowledge, skills, ability, and training necessary to safely perform this work (check one or both):

Group-level orientation and training to this procedure.

Other → No formal training required.

Wastes, residual materials

Are there any wastes and/or residual materials? (check one) None List:

Residual risk

Consider the administrative and engineering controls to be used, the residual risk level (as determined according to LIR300-00-01, section 7.3.3) is (check one):

Minimal Low Medium (requires approval by Division Director)

Emergency actions

Emergency actions to take in event of control failures or abnormal operation (check one): None List:

Step	Action
1	Administer first aid.
2	Contact the RRES-WQH Group Office.
3	Contact EM&R at 667-6211.

Controlled copies are considered authorized. Work will be performed to controlled copies only. This plan and procedure will be revised according to RRES-WQH-QP-023, *Preparation, Review, and Approval of Procedures*, and distributed according to RRES-WQH-QP-021, *Document Distribution*.

RRES-WQH Enhanced Communication Form

Field Personnel:			
Field Location(s) / Activity			
POC:			
Date:			
Time	Radio Check	Time	Radio Check
:00		:00	
:10		:10	
:20		:20	
:30		:30	
:40		:40	
:50		:50	
:00		:00	
:10		:10	
:20		:20	
:30		:30	
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Time IN			