Public Service Company of Colorado

16805 WCR 19 1/2, Platteville, Colorado 80651-9298

February 5, 1982
Fort St. Vrain
Unit #1
P-82031

Mr. John Collins
Regional Administrator, Region IV
U. S. Nuclear Regulatory Commission
611 Ryan Plaza Drive, Suite 1000
Arlington, Texas 76012

SUBJECT: Fort St. Vrain Early Warning Alert System

Dear Mr. Collins:

We have completed the installation of our Early Warning System (EWS). The attachment to this letter describes the system we have installed, the tests which have been conducted, our plans for implementing the system when needed, and our plans for future testing in accordance with NUREG 0654.

We will incorporate a description of the Early Warning System in our Radiological Emergency Response Plan. The system is now available for the State's use, and by a copy of this letter we are informing the Local Region VIII FEMA office of our plans.

Very truly yours,

Don W. Warembourg

Don W. Warembourg
Manager, Nuclear Production
Fort St. Vrain Nuclear
Generating Station

DWW/alk

cc: Brian Grimes
Bob Clark
Pat Byrne (DODES)
Paul Alley (FEMA)

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Fort St. Vrain
Early Warning System

1. Description

The Early Warning System (EWS) for Fort St. Vrain Station is a tone alert system utilizing Weatheralert Model TA-45 weather radios operating on the National Weather Service (NWS) system. The radio power supply is normal AC power with a backup battery as an emergency source. Within the five (5) mile EPZ the National Weather Service operates two (2) stations:

1. WXM, 51, Mead, Colorado

*2. WXM, 50, Point of Rocks, Sterling, Colorado

*Point of Rocks Station is scheduled to be in operation February 12, 1982.

By existing agreement between the State of Colorado, Division of Disaster Emergency Services, and the National Weather Service, the State of Colorado has access to the National Weather Service broadcasting system to broadcast emergency messages concerning Fort St. Vrain.

Within the five (5) mile EPZ we have identified 1,077 residences and businesses presently occupied. As of February 1, 1982, all but eleven (11) tone alert radios were delivered. Of the eleven (11), three (3) people refused to accept the radios. We have been unable to contact the remaining eight (8) people, although we have made repeated attempts and left calling cards. We are continuing our efforts in these remaining eight.

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Recognizing some of the population areas immediately outside of the five mile EPZ, radios were also distributed as follows:

City Government, Town of Johnstown	2
Weld School District RE-5J (Johnstown/Milliken)	3
City Government, Town of Milliken	1
City Government, Town of Gilcrest	1
Weld County School District RE-1	
Central Administration Office, Gilcrest	1
Gilcrest High School	1
Gilcrest Elementary School	1
LaSalle Middle School	1
LaSalle Elementary School	1
Mead Elementary School	1
Mead Junior/Senior High School	1
City Government, Town of Mead	1
Frederick Elementary School	1
Frederick Junior/Senior High School	1
City Government, Fort Lupton	2
Fire Department, Fort Lupton	1
Country View Day Care Nursing Home	2

Figure 1 depicts the five (5) mile EPZ and the location of the above listed areas. It should be noted that the radios issued outside the EPZ were issued primarily for early informational purposes. These areas are clearly not within the five (5) mile planning zone, and are therefore not specifically addressed in our emergency plans or evacuation studies.

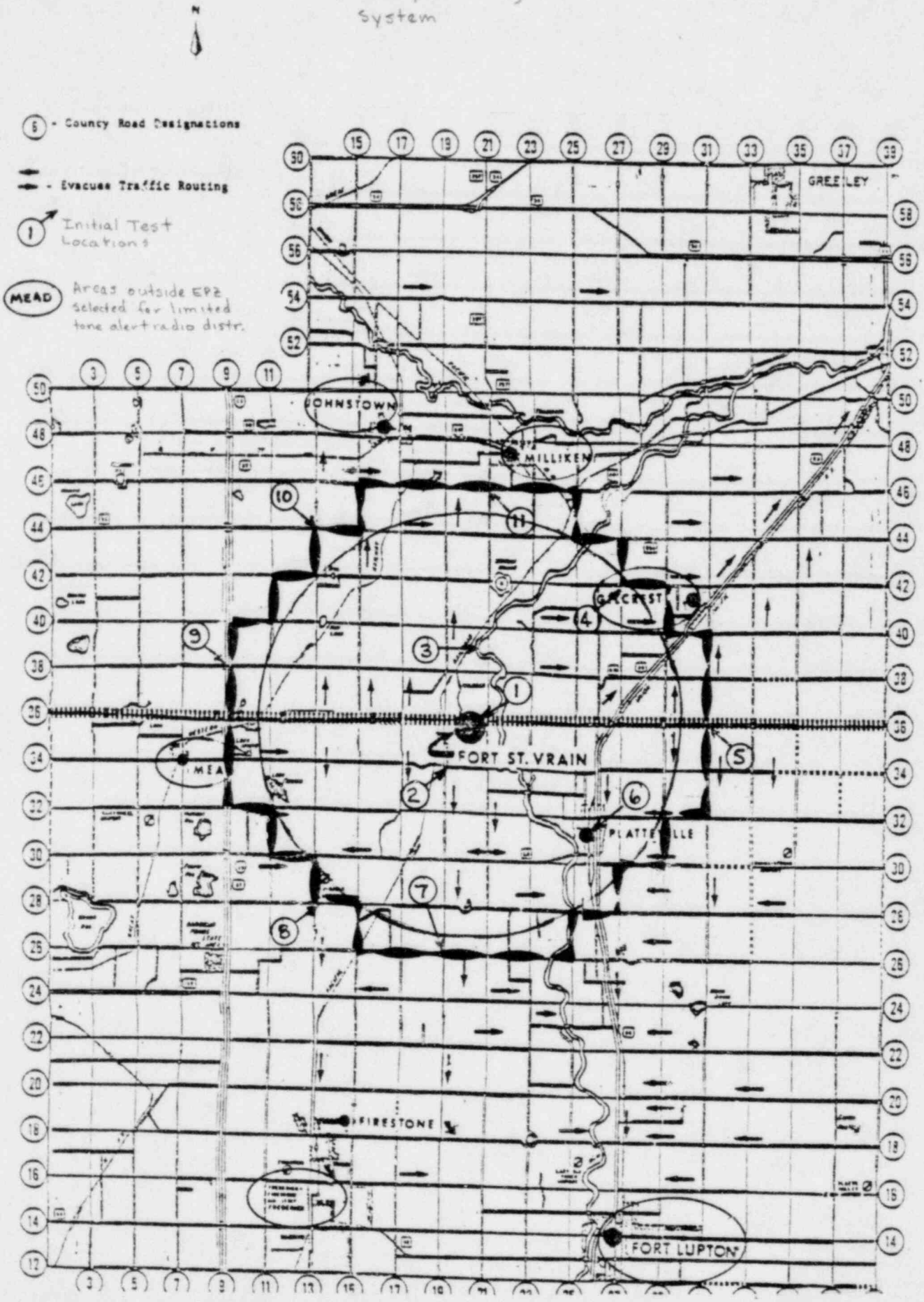
2. Distribution

The Tone Alert Radios were personnaly delivered by Public Service Company representatives. Operation of the radios were demonstrated, the alert system explained and each residence was left with a booklet of instructions as well as a Question and Answer booklet (see Exhibits A and B). The radios were checked for operability at each delivery lcoation.

In addition to the instruction booklet a decal (see Exhibit C) was placed on each radio to ensure ready access to emergency instructions.

Figure 1

FSV Early Warning System



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Following radio distribution two (2) night meetings (February 8, 1982, and February 10, 1982) have been established for people within the EPZ to answer any questions or address any concerns that may have resulted from the EWS. These meetings have been scheduled on a reservation basis and are subject to change pending response from the people within the EPZ.

3. System Testing

On January 27, 1982, the system was tested at eleven (11) typical locations representative of the five mile EPZ. The National Weather Service tests the alert system every Wednesday morning between 11:00 am and 12:00 noon. We dispatched personnel to the locations shown in Figure 1 and demonstrated the alert capability at each location. In addition, the alert capability has been demonstrated in Public Service Company's Brighton office and Fort Lupton office and was also demonstrated in the Town of Milliken and the Town of Frederick. We believe this test adequately demonstrates the broadcast station coverage and the capability of alerting people within the five (5) mile EPZ. This test along with verification that each radio delivered was operational provides adequate assurance of the tone alert capability.

4. System Maintenance

Public Service Company has turned the system over to the State for their use, but Public Service Company has agreed to maintain the system. As indicated in our informational brochure and on the radio decal, people within the five (5) mile EPZ as well as the special distribution outside the EPZ have been given instructions to call Public Service Company for any problems that might be experienced. Public Service Company will maintain an adequate stock of spare radios for replacement as may be required.

As a result of the door-to-door delivery Public Service Company has established a mailing list of all residents. Batteries (backup power) will be mailed to each residence on an annual basis or upon request.

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Public Service Company is developing a system for flagging electric and/or gas meters in the EPZ and will utilize this system to identify residences that may be vacated, sold, or rented to new people. This flag will be cause to contact the residents to ensure any new people have a radio as well as adequate instructions on its use. Likewise this same system will provide information of new buildings that are planned for the area to ensure adequate coverage.

On this basis, we can ensure a 95% capability. We cannot, however, at any given time ensure that people within the EPZ are using the tone alert system.

5. System Testing

The system test presents several problem areas. During our delivery of the radios we learned that at any given time during the day in excess of 25% of the people within the EPZ are not at home. We also learned based on studies conducted after we issued our initial radiological information brochure that approximately 20% of the people within the EPZ are not likely to respond to questionnaires or statistical sampling techniques. Of the population who do respond some 15% to 20% are not likely to respond with any positive or meaningful information. With these types of statistics it is extremely doubtful that as a result of a test that meaningful statistical data could be gathered to reflect an acceptance criteria. For example, for a given test we may be fortunate to receive a 50% response. This 50% will not be indicative of the system capability and it would be difficult to equate this response to a capablity.

Our present plans are to conduct an annual test as required by NUREG 0654. The test will be conducted on the basis of utilizing preselected locations for test radio receivers to demonstrate system coverage. We will also send out mailers with return pre-addressed confirmation cards to each residence within the five (5) mile EPZ in an attempt to establish statistical base data. Based on the results of the sample we will determine any further action that may or may not be required.

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In accordance with the NUREG the results of our test will be forwarded to FEMA for their evaluation. Our present plans are to utilize the annual test in conjunction with our statistical sampling for determining if our emergency instructions and public information programs are adequate in accordance with NUREG 0654, Item G.

HOW TO OPERATE THE Weatheralert MODEL TA-45

DETAILED OPERATING INSTRUCTIONS

1. Plug the small connector of the power cord into the jack on the back side of the WEATHERALERT marked PWR.
2. Plug the AC power unit into an operating 120 volt AC outlet.
3. Lift the antenna upward from its rest into a vertical position and, by grasping the top of the antenna, gently extend the antenna to its maximum length of about 23 inches.
4. Looking at the metal control area on the top of the unit, place the POWER knob in the ON position, depress the WEATHER button until it stays in the DOWN, locked position and slide the VOLUME knob all the way to the right. Noise should come from the speaker.
5. Switch the CHANNEL switch, located on the bottom of the unit, from one side to the other until a voice is heard from the speaker. If no voice is heard, move the unit near an outside window to insure strong reception. Leave the switch in the position that produces the loudest voice.
6. To receive weather broadcasts, slide the VOLUME knob for the desired listening level.
7. After hearing the weather, depress the ALERT button until it stays down and locked and the WEATHER button pops up. The unit will become silent and the red LED between the two buttons will be lit. THE UNIT IS NOW IN THE ALERT MONITORING CONDITION. THE RED LIGHT SHOULD BE LIT.
8. TO RECEIVE A WARNING, LEAVE THE UNIT IN THE NO SOUND LIGHT ON CONDITION. When the National Weather Service signals, the red light will start flashing and a loud siren alarm will be heard. If the SQUELCH switch, located on the bottom of the unit, is in the ON position, the spoken description of the danger will be heard immediately after the siren alarm sound stops (about 10 seconds). If the SQUELCH switch was in the OFF position, there will be no further sound from the speaker after the siren alarm stops, but the light will continue flashing to tell you a warning was sent. To hear the description of the warning, depress the WEATHER switch until it stays down and locked. This resets the SQUELCH to the stand by condition and stops the light from flashing. Depressing the WEATHER switch will also immediately turn off the siren alarm before the full 10 second alarm interval is past. In this case, you will first hear the tone the National Weather Service uses for signaling, then the description of why the warning was sent.
9. If you do not want to hear the alarm, slide the POWER switch, located on the top of the unit, to the OFF position. If the ALERT button was depressed, the red light will go off, indicating that the entire unit is OFF. YOU WILL NOT RECEIVE THE ALARM IN THIS CONDITION.
10. Place the unit within range of an AC outlet, but in a location that produces a clear, 100% understandable weather report. If you can easily understand the weather report, your unit is in a good enough reception area to reliably alert you. The unit draws so little power in standby that it will cost you less than a penny a week to have the unit watching the weather for you. IT IS RECOMMENDED THE UNIT BE LEFT IN THE ALERT MONITORING CONDITION CONTINUOUSLY.

TEST SWITCH

A switch marked TEST is located on the bottom of the unit. Pushing this switch position and depressing the ALERT button while the unit is in the alert monitoring condition will test the alarm, squelch and flashing light circuits, just as if an alarm were sent.

BATTERY OPERATION

To insert battery, slide the battery door, located on the side of the unit on the bottom, completely off until the rectangular hole for the battery is visible. Connect an ALKALINE 9 volt transistor radio battery (DURACELL MN1604 or equivalent) to the battery connector in the open area, fit the battery carefully into the area and replace the battery door.

The WEATHERALERT is now equipped for automatic battery takeover if the AC power fails. The battery will remain in the fully charged condition for about one year, as long as the AC power does not fail. When AC power stops, an alkaline battery will provide up to 15 hours additional alert monitoring, depending on the strength of the received signal from the National Weather Service radio station. If reception is very clear and strong on AC power, a fresh battery will give 15 or more hours of alert monitoring.

Weatheralert

In order to insure having a relatively fresh battery for emergency use, it is advisable to replace the battery at least once a year. This precaution also helps guard against damage to the unit or furniture from old, leaking batteries. If the Weatheralert will not be used for long periods of time, place the POWER switch in the OFF position to prevent discharge of the battery in case of AC power failure.

Exhibit A

To check the battery during AC power operation, momentarily withdraw the small connector of the power cord from the PWR jack. The meter needle will move closer to the red area as the battery takes over, but if the battery is exhausted or not installed, the needle will fall into the red area. During portable operation, the meter will constantly measure the battery voltage as long as the POWER switch is ON. Anytime the meter needle enters the red area, the battery should be replaced.

EXTERNAL ANTENNA KIT

For far fringe reception, External Antenna Kit, Model A-77, is available. The WEATHERALERT Model TA-45 is equipped with an external antenna jack (the hole on the back side marked ANT) to connect to External Antenna Kit, Model A-77. Simply insert the earphone-type plug supplied with the antenna cable and use the WEATHERALERT as before. Since the telescoping antenna is automatically disconnected when the external antenna is plugged in, it may be collapsed and left in the resting position.

LIMITED WARRANTY

This radio product is warranted to be free from defects in material and workmanship for a period of 90 days from date of original purchase.

Our obligation under this warranty is limited to repairing the defective product or, at our option, replacing the defective product with a factory serviced unit when the defective unit is returned, transportation prepaid, packed in original carton or equivalent, to our nearest authorized service station.

This warranty will be considered void if unit is tampered with, improperly serviced or subjected to misuse, negligence, or accidental damage.

Manufacturer shall not be responsible for any malfunction of the National Weather Emergency Broadcast System nor for its improper or untimely broadcast, nor for the purchaser's improper use or misuse of this unit; manufacturer further disclaims any and all liability arising from any cause of action based upon breach of any warranty, express or implied, including warranty of merchantability and warranty of fitness for a particular purpose.

WEATHERALERT

639 So. Dearborn • Chicago, IL 60605

PORTABLE OPERATION

Insert the battery as described above, but unplug the power unit from the WEATHERALERT. As described above, reliable operation depends upon the strength of the received broadcast. IT IS RECOMMENDED THAT PORTABLE ALERT MONITORING OPERATION BE RESTRICTED TO EMERGENCY USE ONLY, such as fishing expeditions on open water, camping, etc., in order to preserve battery life. When not in use, slide the POWER knob to the OFF position. If possible, keep a spare alkaline battery on hand.

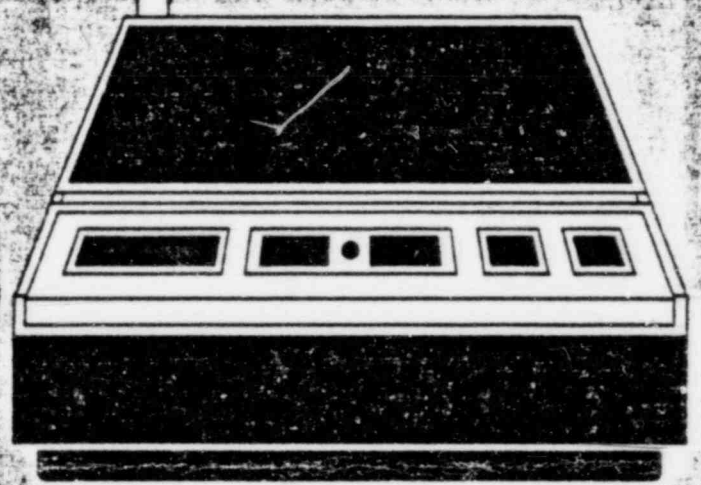
The recommended usage for portable operation is to use the WEATHERALERT for periodic checks on the weather, switching the unit off after every use in order to keep the battery fresh. This way the WEATHERALERT will usually provide over 6 months of daily weather reports per battery! Compare this to about 15 hours of continuous operation per battery when used as a portable alert monitor. WHENEVER POSSIBLE, USE AC POWER FOR ALERT OPERATION.

Weatheralert

BATTERY METER

The battery meter, located in the metal control area on the top of the unit, measures the battery voltage only whenever energy is being drawn from the battery, as in portable operation, or if the normal AC power is interrupted. When AC power is being used, the meter needle will stay in the green area as long as the POWER switch is in the ON position.

Questions
and Answers
About the
Early Warning
Alert System
For the
Fort St. Vrain
Nuclear Electric
Generating
Station



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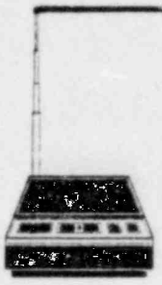
Company
of Colorado

Exhibit B



Important!

Before reading this information, review the operating instructions for your "Weatheralert Model TA-45 Radio" to acquaint yourself thoroughly with the operation of your radio. The operating instructions for the radio and this brochure should be kept with your Radiological Emergency Response Plan (RERP) booklet in a convenient place should you need them for future reference.

Can I Test The Alert Signal On My Radio Myself?

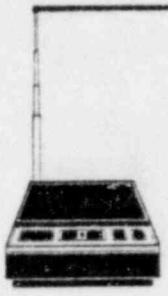
Yes. First be sure the power switch is ON. Depress the ALERT button and place the SQUELCH switch (on the bottom of the radio) in the ON position. Push the switch marked TEST (on the bottom of the radio). The alert signal will sound and the radio and flashing light will come on just as if an alarm were sent. IT IS RECOMMENDED THAT THE RADIO BE LEFT IN THE *ALERT* MONITORING POSITION CONTINUOUSLY.

What If I Have Transient Tenants Living In Temporary Housing?

Should the unlikely event of an emergency occur, it will be the responsibility of the landowner to notify any transient tenants living in temporary housing.

What Do I Do With My Radio If I Move?

Call 785-2223 (extension 475) for more information.



What Should I Do To Make Sure My Radio Is Working Properly?

- If you do not plan to use your radio for an extended period because of vacations, trips, etc., set the power to "OFF". Be sure to turn the radio back on upon returning.
- Should you experience reception difficulties, first check that the unit is plugged in and/or that the battery is good. Then check that your channel switch is properly set to the station in your area. Also try different locations in your home and different antenna positions. IMPORTANT! If you receive no signal whatsoever, call 785-2223 (extension 475). Telephone numbers for assistance with your radio are printed on the bottom of your radio for your convenience.
- Be sure that your radio is situated so that its location does not interfere with its proper ventilation. (Keep it away from heat sources.)

If My Radio Quits Working, Can I Service It Myself?

No. If you will call one of the telephone numbers listed on the bottom of the radio, we will make arrangements to correct the problem.

Will You Replace The Battery In The Radio?

PSCo intends to provide each resident with a new 9-volt battery for the radio each year. If your battery needs to be changed prior to the 12-month replacement, call 785-2223 (extension 475), and we will see that you get a new battery. It should be noted that your radio will continue to operate on normal AC power until your battery can be replaced.

Under normal operating circumstances, we recommend the radio be plugged into your electrical system in order to assure that the battery remains reliable as a backup in case it is needed.

How Will The "Alert" From Fort St. Vrain Work?

The alert signal will sound like the alert signal for a severe weather warning. Immediately after the alert signal stops (about 10 seconds), a spoken description of the warning will be heard. Messages will be repeated. In the very unlikely event of an *actual* emergency, telephone lines are likely to be tied up with emergency calls. Your best source of immediate information is the tone alert radio system. In addition there are two Emergency Broadcast radio stations. These stations are KOA at 850 or KFKA at 1310 on your AM radio dial. In case of an emergency, you should listen to both the tone alert radio system and one or both of the stations above on your AM radio.

Keep in mind that most alarms will involve severe weather alerts from the National Weather Service. If it is a Fort St. Vrain radiological emergency alert, refer to your Radiological Emergency Response Plan (RERP) booklet.

Will I Ever Get A Test Alert Signal From My Radio?

Yes. There will be occasional tests of the Fort St. Vrain alert system. The National Weather Service also conducts tests of the severe weather and disaster alert signal around midday on Wednesdays. (This testing is similar to the civil defense emergency broadcast tests heard occasionally on your radio and television.) To determine if an alert signal is a test or an actual emergency, listen to the broadcast. If the alert is an emergency, a spoken description of the event will be repeated.

In the case of a test alert signal, reset your radio receiver per the information in the radio operating instructions.

What Is The "Early Warning Alert System"?

The Nuclear Regulatory Commission, an agency of the federal government, requires as part of the Radiological Emergency Response Plan (RERP) an "early warning alert system" for all residents living within a designated area of any nuclear power plant. In the case of Fort St. Vrain, the designated area is the five-mile area surrounding the plant. Although Public Service Company is confident that our Fort St. Vrain Nuclear Generating Station poses absolutely no hazard to the public, we are committed to full compliance with all federal emergency management regulations. We are also dedicated to taking those steps that will assure you, our neighbor, that the best possible emergency notification plan is in effect for Fort St. Vrain.

The seven-channel "Weatheralert Model TA-45" radio you now have will alert you in the unlikely event of any emergency at Fort St. Vrain. Your radio will also be quite useful in receiving up-to-the-minute weather information from 24-hour broadcasts by the National Weather Service.

To operate your radio in this mode, simply depress the weather button. However, it is important that the radio be returned to the alert status when you are not listening to weather broadcasts.

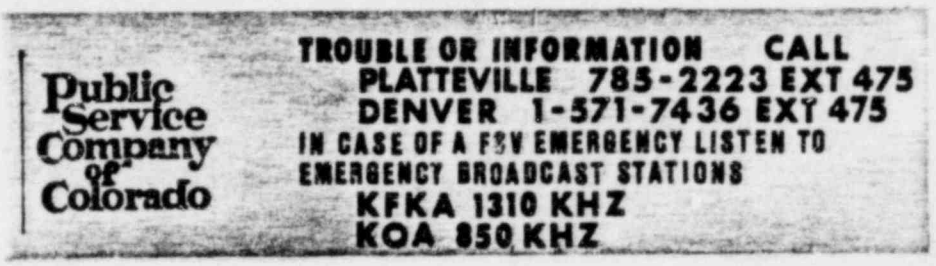

Public Service Company of Colorado
TROUBLE OR INFORMATION CALL
PLATTEVILLE 785-2223 EXT 475
DENVER 1-571-7436 EXT 475
IN CASE OF A FSV EMERGENCY LISTEN TO
EMERGENCY BROADCAST STATIONS
KFKA 1310 KHZ
KOA 850 KHZ

Exhibit C