

Supplement Training: Self Contained Self Rescuer Orientation

1. Introduction to Self-Contained Self-Rescuer

1.1 Self-Contained Self-Rescuer



Self-Contained Self-Rescuer (SCSR) Training

1.2 Introduction

Introduction

1.3 Welcome

Introduction

Welcome to the Self-Contained Self-Rescuer (SCSR) Training.

Upon completion of each section of this module, you will be given an opportunity to submit questions to obtain clarification of any content you are not sure of.

Got a Question?

Submit your question here using Valeforms, be sure to include your first name last name and contact information.

[CLICK HERE!](#)

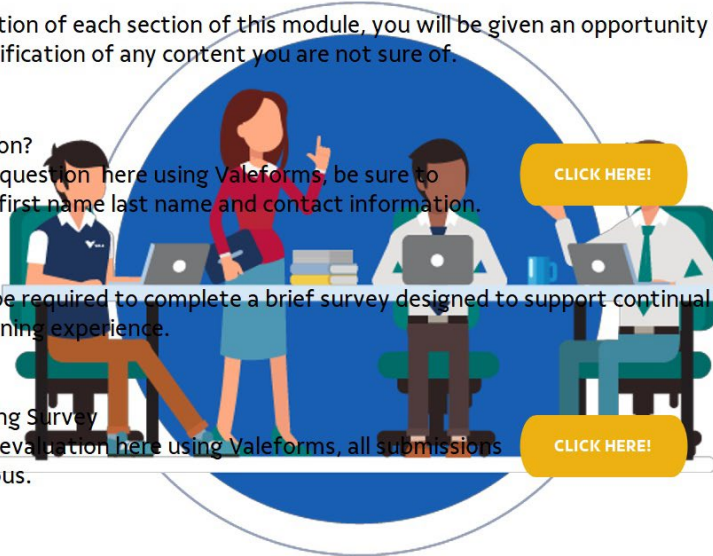
You will also be required to complete a brief survey designed to support continual improvement to your Vale learning experience.

Online Training Survey

Submit your evaluation here using Valeforms, all submissions are anonymous.

Thank you.

[CLICK HERE!](#)



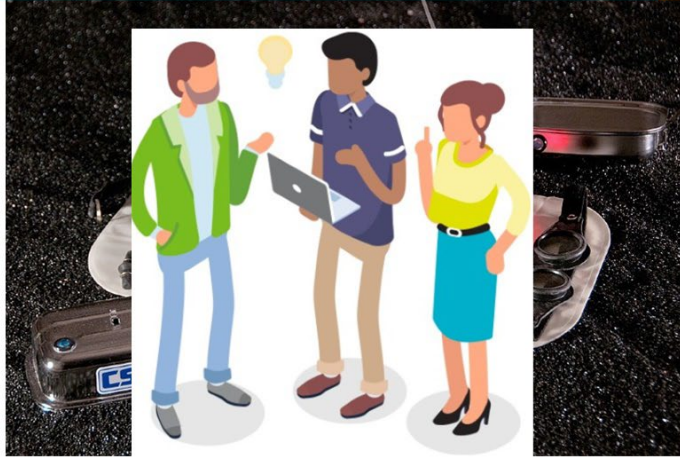
1.4 Objectives

Introduction

Objectives

This eLearning module covers the operational training for the Self-Contained Self-Rescuer (SCSR).

- Describe how the SCSR works
- Understand the Operation, and the controls
- Follow procedures on how to properly don, inspect, operate, and maintain the SCSR



You will also be required to answer a series questions in a Final Quiz. Corrections to the Final Quiz questions cannot be made once this section is completed. You must review any incorrect questions if you score 70% or more.

If you score less than 70% you will have to repeat this module.

1.5 HomeSafe

Introduction



- Is a **call to action** meant to focus us all on the primary goal of our safety efforts: Everyone going **HomeSafe** and Life Matters Most is our goal and our culture.
- Is a **personal story** about **why** we work safely – so we can all go home at the end of every shift.
- It links **why we** want to go HomeSafe with **how we** have to act in order to do so.
- **Reminds** us that our family and friends need us and depend on us to come HomeSafe. **THEY** are our reason to get **HomeSafe**.

1.6 The Role we Play

Introduction

The Role we Play



Be Aware

Be aware of my surroundings and the risks around me.



Apply Good Work Practices

Apply good work practices and knowledge, skills, and experiences to safely complete tasks assigned to me.



Ask for Help

Apply others' experiences and ask for help when needed.



Stop & Correct

Be my brother and sister's keeper and 'stop & correct' when required



Follow Policies & Procedures

Our internal policies and procedures guide us in doing our work in a manner that reduces risk.



Follow Rules & Regulations

Rules and regulations have been established to help us achieve zero harm and can be legislated or internal.

1.7 Incident Review

Introduction



Incident from Creighton Mine



2. Overview of the SCSR

2.1 Introduction



Overview of the Self-Contained Self-Rescuer (SCSR)

2.2 What is a Self Contained – Self Rescuer?

Overview

What is a Self Contained – Self Rescuer?



2.3 Objectives

Overview

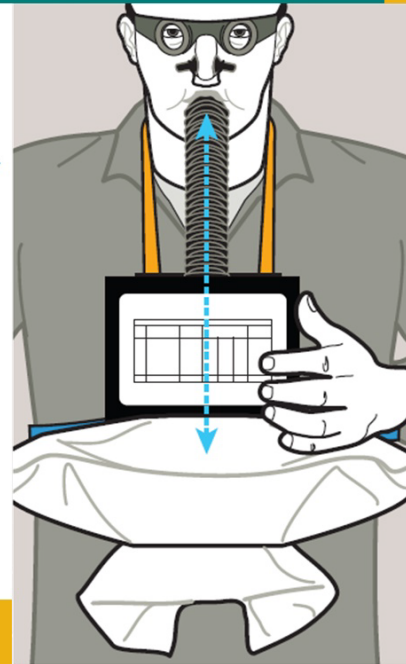
How an SCSR Works

All SCSR operation is done by the user. The SCSR system is a sealed breathing apparatus that removes carbon dioxide and adds oxygen.

- System is simple to operate
- Maintaining an airtight seal between your lips and your mouthpiece
- Light weight and compact that you can conveniently carry one on your belt
- Clamping your nose shut
- Approximately 5 pounds.
- Keeping your breath within the system
- Easily carried in a pouch, shoulder bag or backpack.

The idea is to limit the amount of air that is being moved to the gases in the canister and not too heavy only into the SCSR's chemical bed, activating it to produce the oxygen you need. If you remove your mouthpiece, your oxygen will escape.

! *Never take your mouthpiece out to talk or for any other reason unless you are changing over to another SCSR*



2.4 Question?

Overview

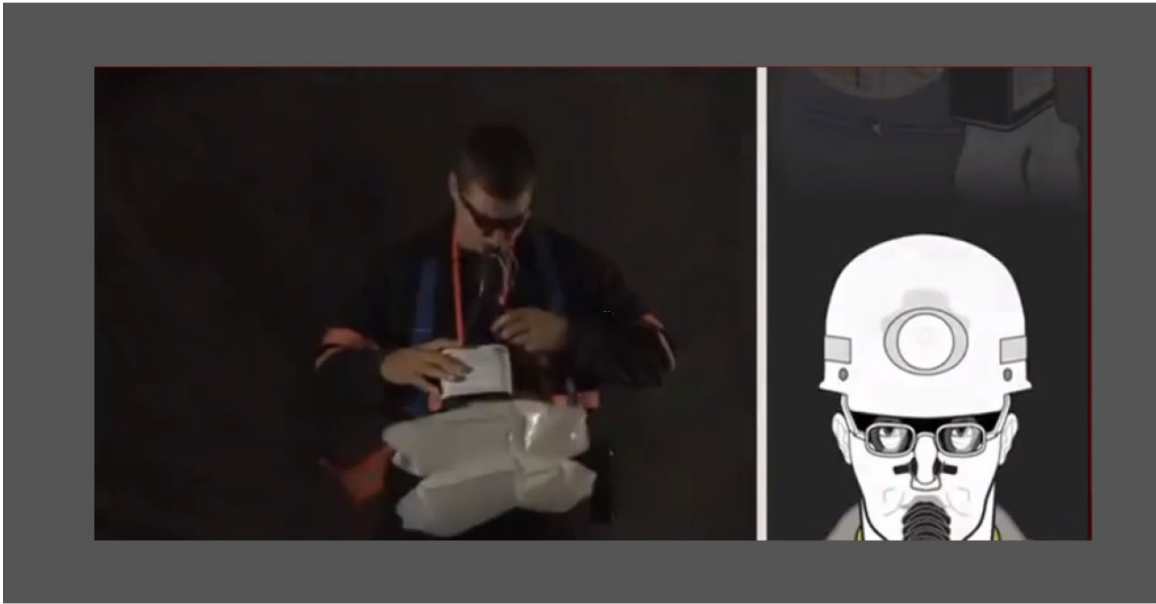


Got a Question?

Submit your question here using Valeforms, be sure to include your first name last name and contact information.

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3. Donning the SCSR and Startup Procedure

3.1 Introduction



Donning and Startup of the Self-Contained Self-Rescuer (SCSR)

3.2 Introduction

Donning and Startup

Introduction

The SCSR must be checked and its integrity must be tested before it can be used in a hazardous environment.

This procedure is divided into three main parts:

- Donning
- Start-up
- Changeover



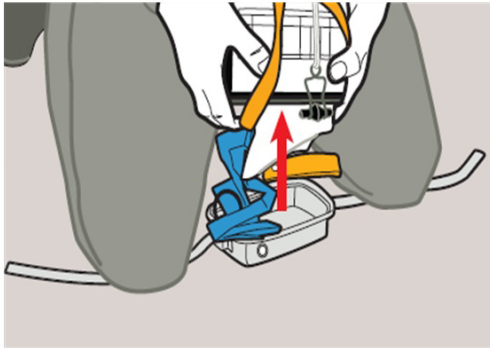
3.3 Donning and Start Up

Donning the SCSR

3.4 Donning and Startup

Donning and Startup

A When an emergency surrounds you with smoke or toxic gases, you have to be ready to don your self-contained self-rescuer (SCSR) correctly.



1. Remove SCSR from its container.
 2. Set SCSR on cool, dry surface.
 3. Remove and turn on the light on SCSR.
- With SCSR open, locate the breathing bag and other parts.
- Locate fabric loop on SCSR top.
 - Unclip fabric loop.
 - Hold SCSR down while pulling loop up.

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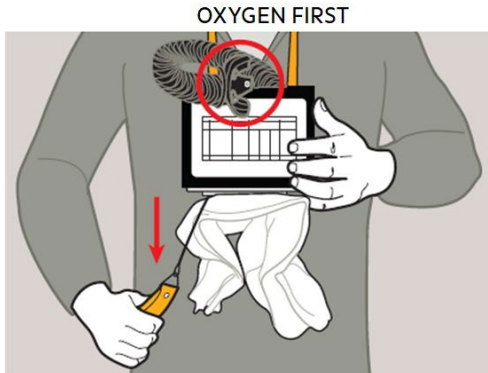


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3.5 Put It on and Start It

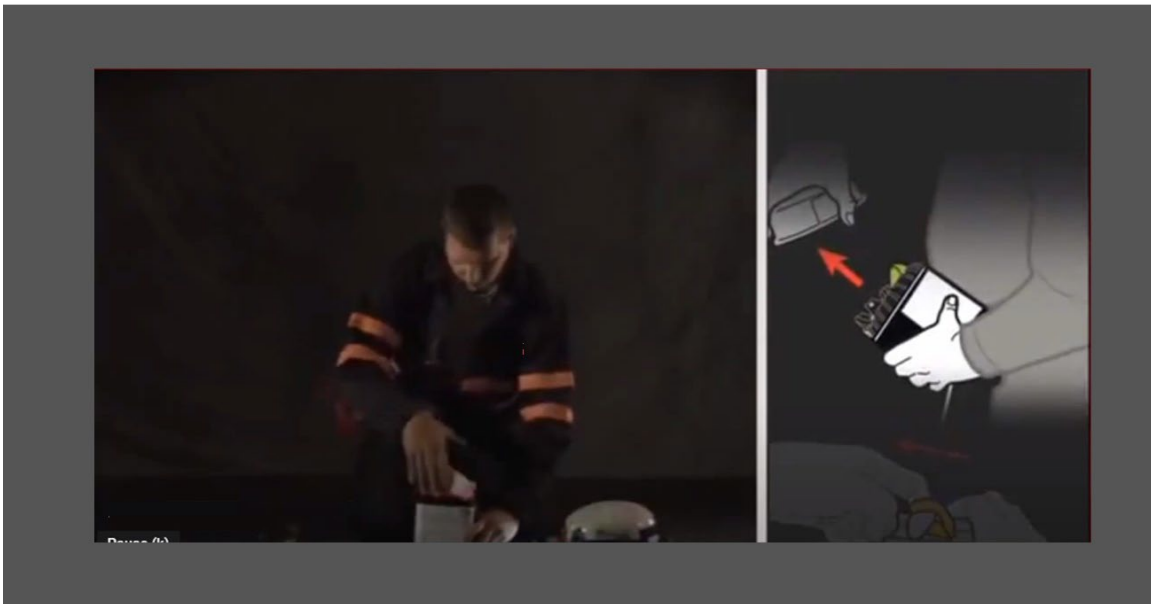
Donning and Startup

B Put It on and Start It



1. Loop neck strap around neck to free hands.
Caution! Keep plug in mouthpiece.
2. Grab starter tag hanging under SCSR.
3. Pull down once and let go. Breathing bag will fill.

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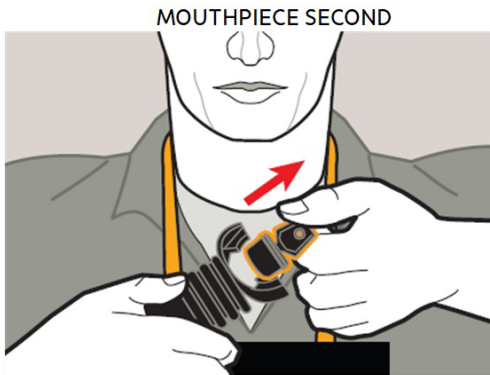


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3.6 Put It on and Start It

Donning and Startup

B Put It on and Start It



1. Spit out gum or chewing tobacco.
2. Inhale one deep breath.
3. Now pull out mouthpiece plug. Don't twist.
4. Insert mouthpiece. Grip with teeth.
5. Exhale into mouthpiece to activate oxygen. *Breathing will take some work. You will feel resistance.*
6. Just keep breathing!

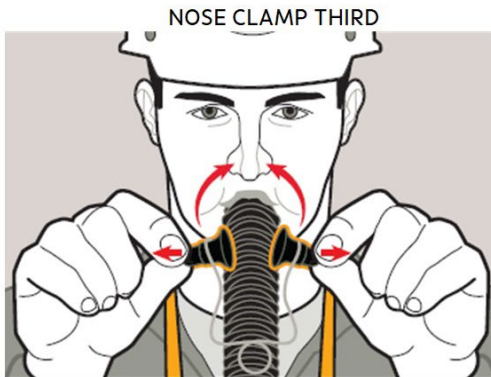
If oxygen escapes through mouthpiece:

- Grab another SCSR.
- If no other SCSR is handy, begin manual start.

3.7 Put It on and Start It

Donning and Startup

B Put It on and Start It



1. Pull clamp apart.
2. Clamp nose shut.

3.8 Get Ready to Move

Donning and Startup

C Get Ready to Move

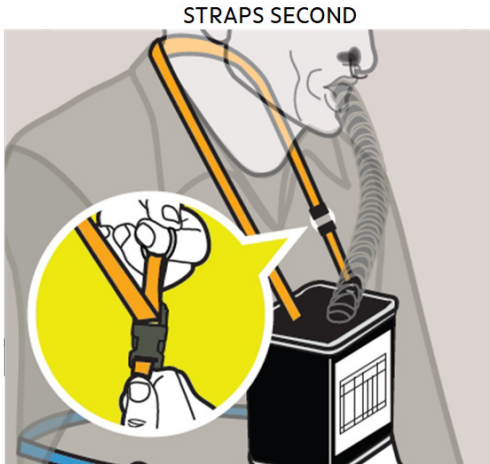


1. Put SCSR goggles on.
Caution! Use only standard SCSR goggles.
2. Need eyeglasses? Wear them over goggles.
3. Tuck eyeglass side pieces under goggles strap.

3.9 Get Ready to Move

Donning and Startup

C Get Ready to Move



1. Tighten neck strap to take weight off mouthpiece and breathing hose.
2. Pass chest strap around your back and clip to chest strap hook.
3. Tighten chest strap so SCSR is snug against chest.
 - Put hard hat back on.
 - Drop excess gear.
 - Follow your emergency evacuation procedure.

Caution! Don't remove mouthpiece, don't talk.

Now lets' watch this video demonstration to review the steps described above.

[Play Video](#)

Part2 (Slide Layer)



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3.10 Change Over

Change Over

3.11 Changeover

Donning and Startup

D Changeover

Plan Ahead

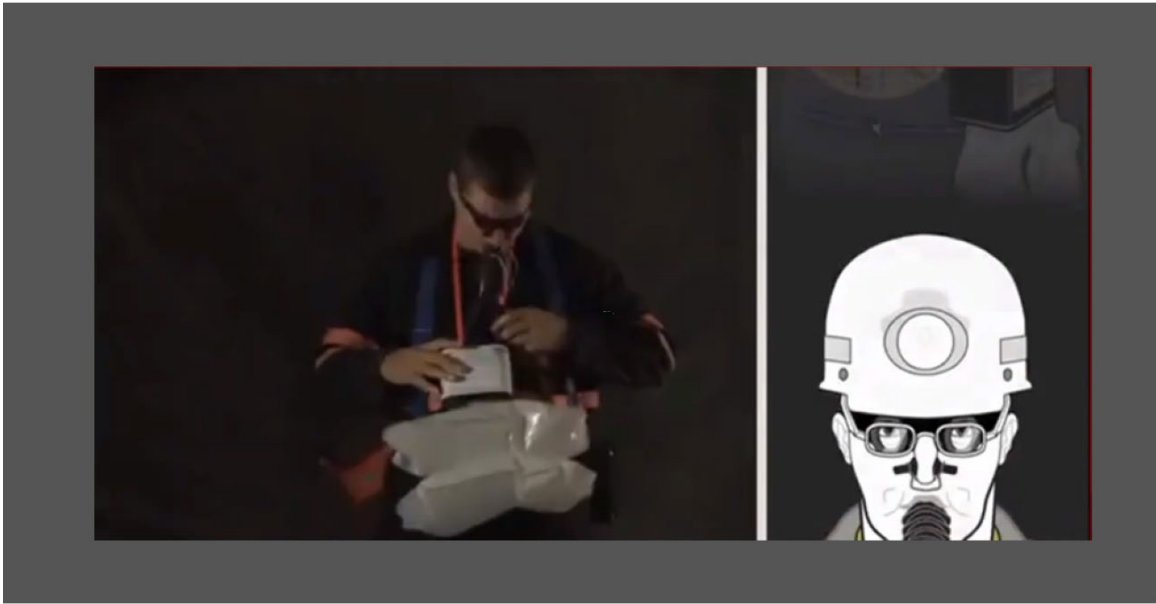
- You may need more than one SCSR to reach safety.
- Grab another SCSR as soon as possible.

Know When to Change Over to a Second SCSR

- When breathing gets uncomfortable: Change over!
- When breathing bag gets hard to fill: Change over!



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3.12 Changeover

Donning and Startup

D Changeover

How to Change Over

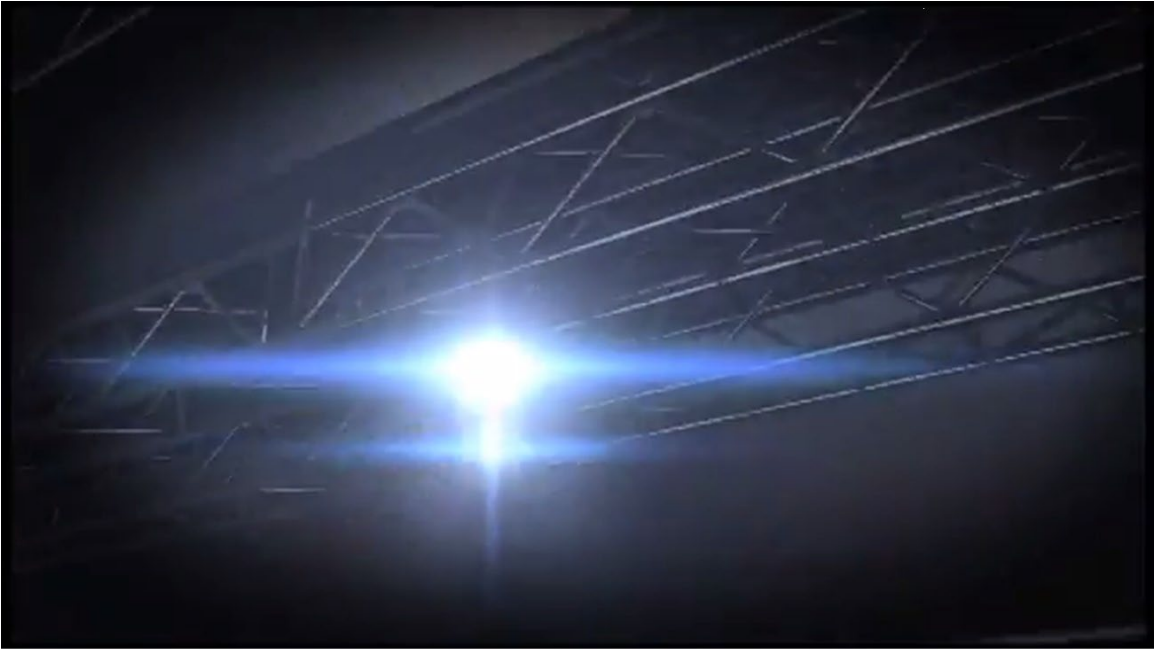
1. Open second SCSR.
2. Hang second SCSR around neck.
3. Pull second SCSR's starter tag.
4. Take deep breath from first SCSR. Hold breath.
5. Pull second SCSR's mouthpiece plug.
6. Spit out first mouthpiece.
7. Put second SCSR's mouthpiece in mouth. Exhale.
8. Drop first nose clamp. Clamp nose shut with second clamp.
9. Drop first SCSR after second one is working.



Now lets' watch this video demonstration to review the steps described above.

[Play Video](#)

Change over (Slide Layer)



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3.13 Question?

Donning and Startup

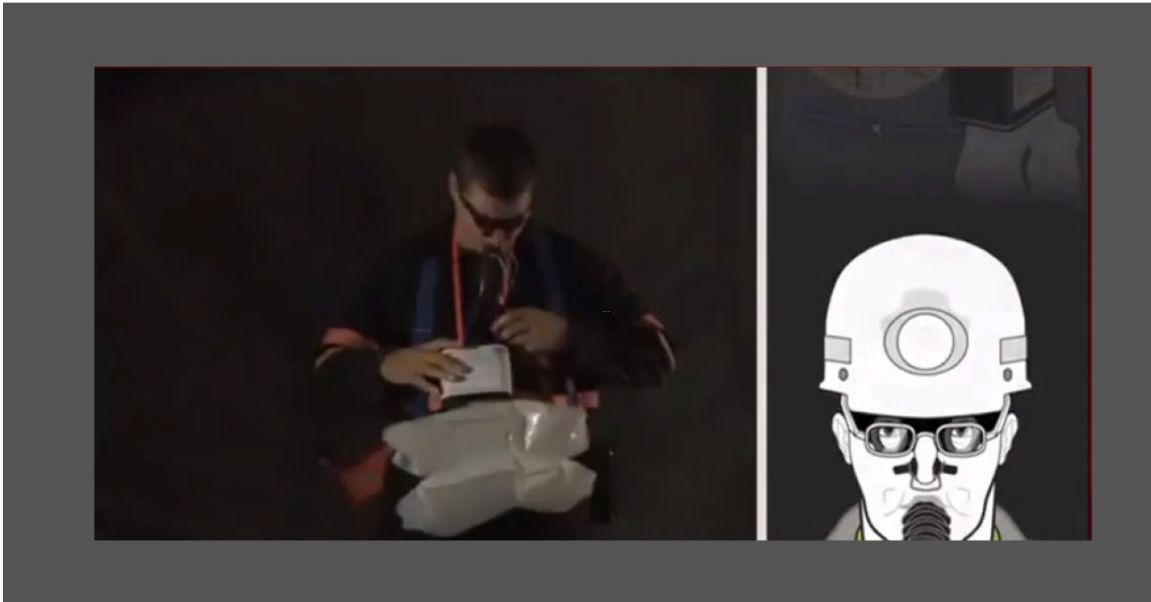


Got a Question?

Submit your question here using Valeforms, be sure to include your first name last name and contact information.

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3.14 Question 1

(Multiple Choice, 10 points, unlimited attempts permitted)

Donning and Startup – Knowledge Check

Once you open your SCSR remove the cap from the mouthpiece.

- False
- True

Submit



| Correct | Choice |
|---------|--------|
| X | False |
| | True |

Feedback when correct:

That's right! You selected the correct response.

Feedback when incorrect:

You did not select the correct response.

Correct (Slide Layer)

Correct

That's right! You selected the correct response.

Continue

Incorrect (Slide Layer)

Incorrect

You did not select the correct response.

Continue


Try Again (Slide Layer)

Donning and Startup – Knowledge Check

Once you open your SCSR remove the cap from the mouthpiece.

False


True



Incorrect

That is incorrect. Please try again.

[Try Again](#)


Question

[Submit](#)

4. Manual Start

4.1 *Manual Start*



 **Manual Start**

4.2 Manual Start

Manual Start

If Starter Oxygen Escapes Through Mouthpiece. Go to backup plan!



Now lets' watch this video demonstration to review the steps described above.

[Play Video](#)

Manual Start video (Slide Layer)



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4.3 Question?

Manual Start

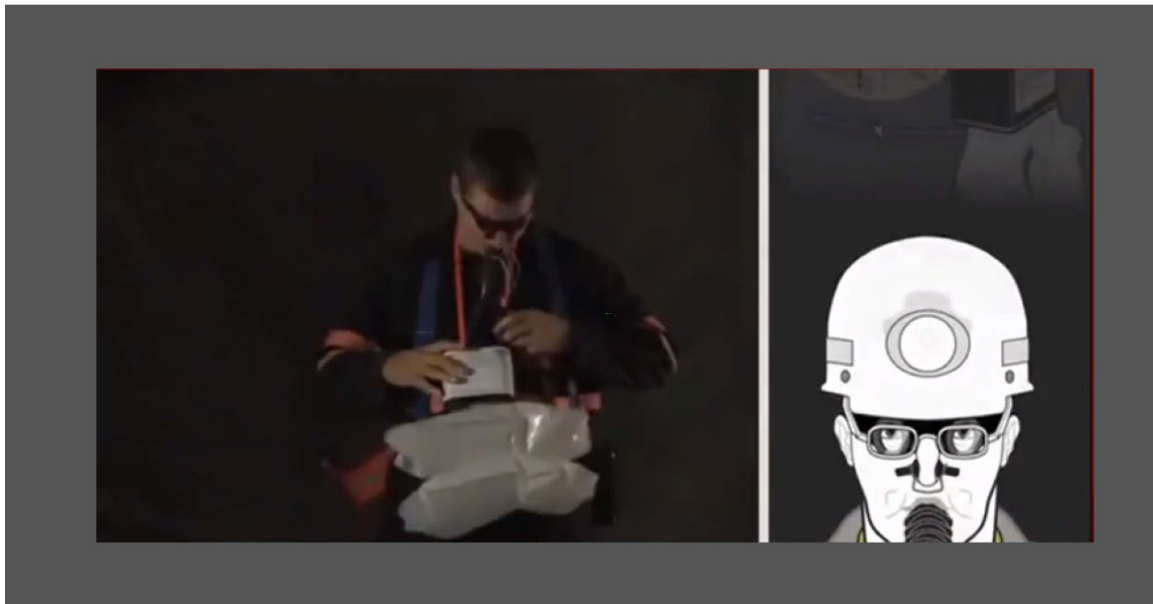


Got a Question?

Submit your question here using Valeforms, be sure to include your first name last name and contact information.

[CLICK HERE!](#)

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4.4 Questions 1

(Multiple Choice, 10 points, unlimited attempts permitted)

Manual Startup – Knowledge Check

If the mouthpiece plug is removed prior to inflating the bag the unit cannot be used.

- False
- True

Submit



| Correct | Choice |
|---------|--------|
| X | False |
| | True |

Feedback when correct:

That's right! You selected the correct response.

Feedback when incorrect:

You did not select the correct response.

Correct (Slide Layer)

Correct

That's right! You selected the correct response.

Continue

Incorrect (Slide Layer)

Incorrect

You did not select the correct response.

Continue

Try Again (Slide Layer)

Incorrect

That is incorrect. Please try again.

Try Again

5. Safe Operation of the SCSR

5.1 Introduction



Safe Operation of the SCSR

5.2 What to Expect when wearing a SCSR

Safe Operation of the SCSR

What to Expect when wearing a SCSR

Some conditions you need to be aware of while operating an SCSR include:

- **Heat:** All units grow hot to the touch.
- **Induction of cough:** Most units are packed with a dust like substance (talc/cornstarch) to prevent the hoses from sticking together.
- **Taste:** Miners have reported a variety of different tastes
- **Resistance to breathing:** All SCSRs have some level of breathing resistance associated with them.



5.3 Tips for Making your SCSR last longer

Safe Operation of the SCSR

Tips for Making your SCSR last longer

There are many factors that can affect how long your SCSR will last in an emergency such as:

- Activity Level
- Physical Condition
- Experience and breathing techniques

Some tips to ensure you get maximum capacity from your SCSR are:

- Go slow and steady
- Don't Panic
- Follow your evacuation or emergency response plan



5.4 Tips for Making your SCSR last longer

Safe Operation of the SCSR

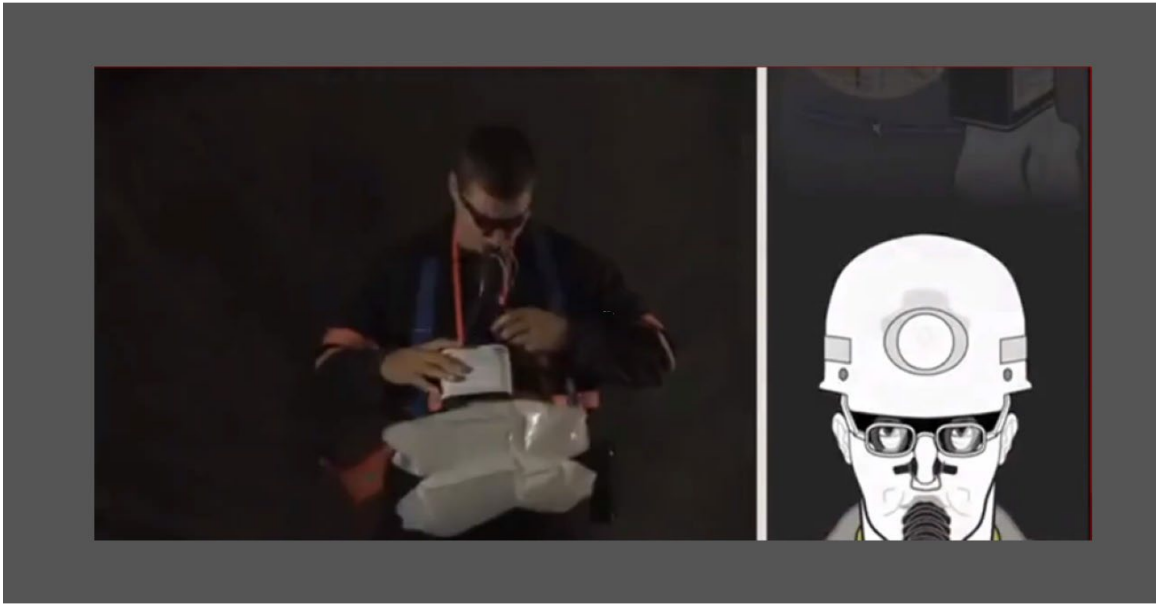
Do's and Don'ts

When an emergency situation occurs REMEMBER:

- ✓ **Do:** Put on SCSR as soon as you see or hear trouble.
- ✗ **Don't:** Wait for odors. Danger has no smell.
- ✓ **Do:** Spit out gum or chewing tobacco.
- ✗ **Don't:** Twist breathing hose when putting on SCSR.
- ✗ **Don't:** Remove mouthpiece except to change over.
- ✗ **Don't:** Talk. Use hand signals.
- ✓ **Do:** Climb, lift, and step slowly.
- ✗ **Don't:** Run, speed uses up oxygen faster.
- ✗ **Don't:** Carry gear you don't need — only another SCSR.
- ✓ **Do:** Change over to another SCSR when breathing gets uncomfortable.



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5.5 Question

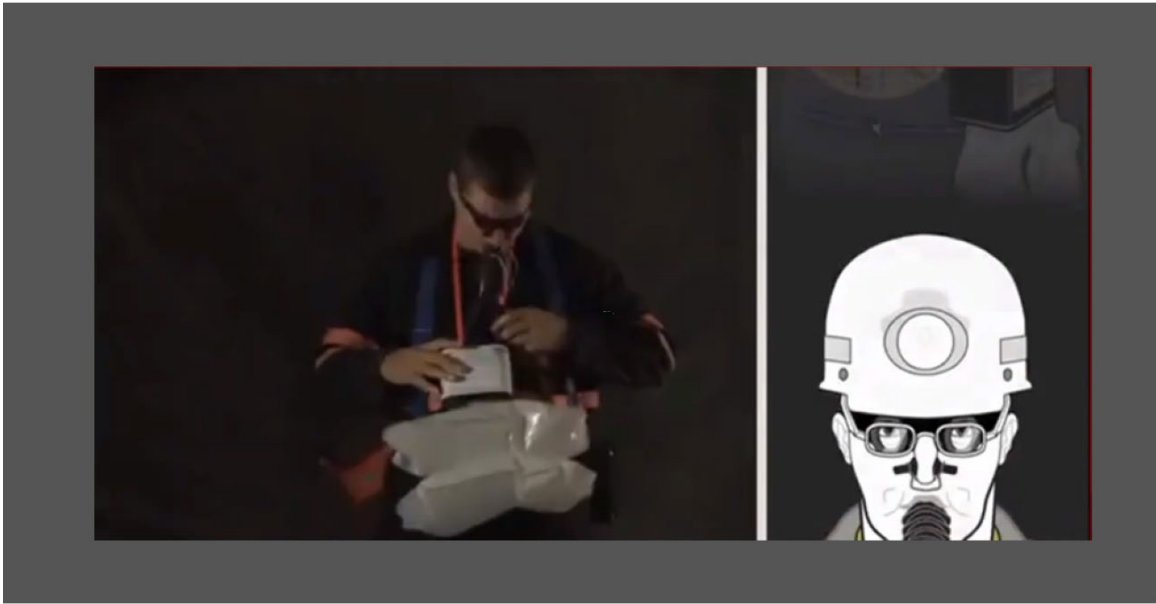
Safe Operation of the SCSR



Got a Question?
Submit your question here using Valeforms, be sure to
include your first name last name and contact information.

[CLICK HERE!](#)

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6. Inspecting the SCSR

6.1 Introduction



✓ Inspecting the SCSR

6.2 Inspecting the SCSR

Inspecting the SCSR

Introduction

Why Perform a Pre-Use inspection?

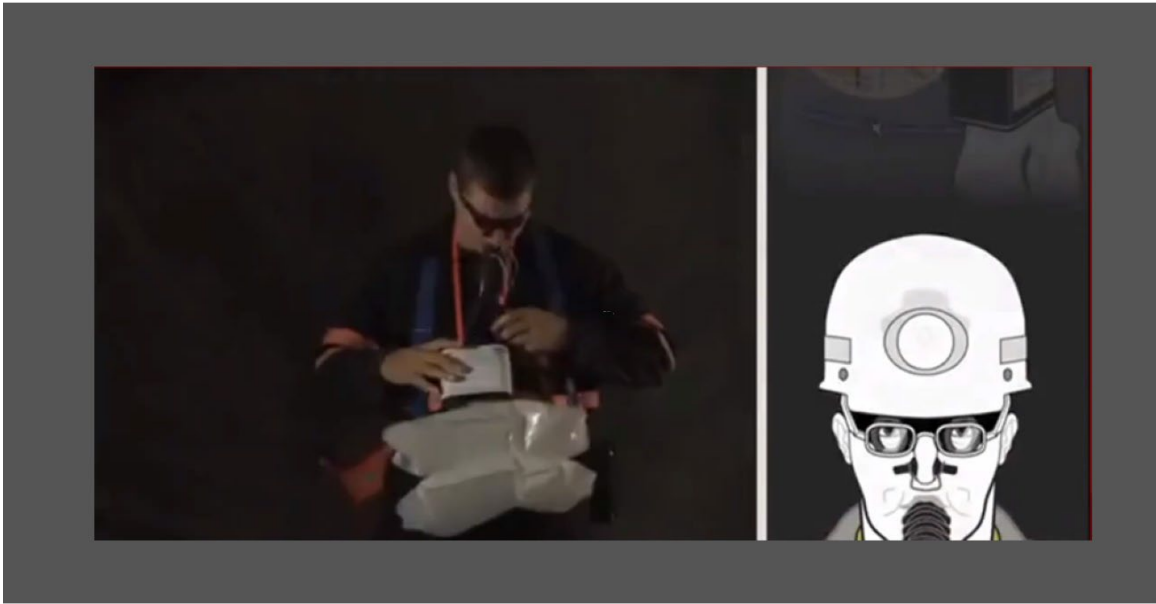
Make sure your SCSR will work when you need it by inspecting it before every shift.

When is an SCSR acceptable for use, and when should you dispose of it?

In this section, you will learn how to perform a Pre-Use Inspection to assess the condition of an SCSR during both daily and 90-day inspections.



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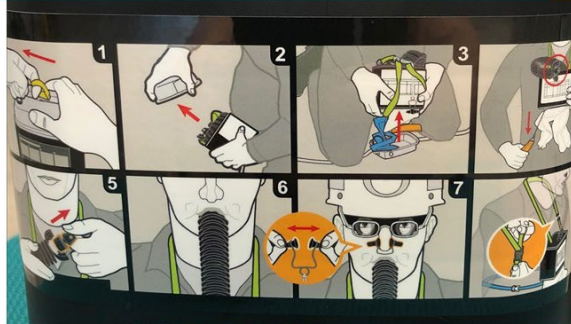
6.3 Starting with the Pouch

Inspecting the SCSR

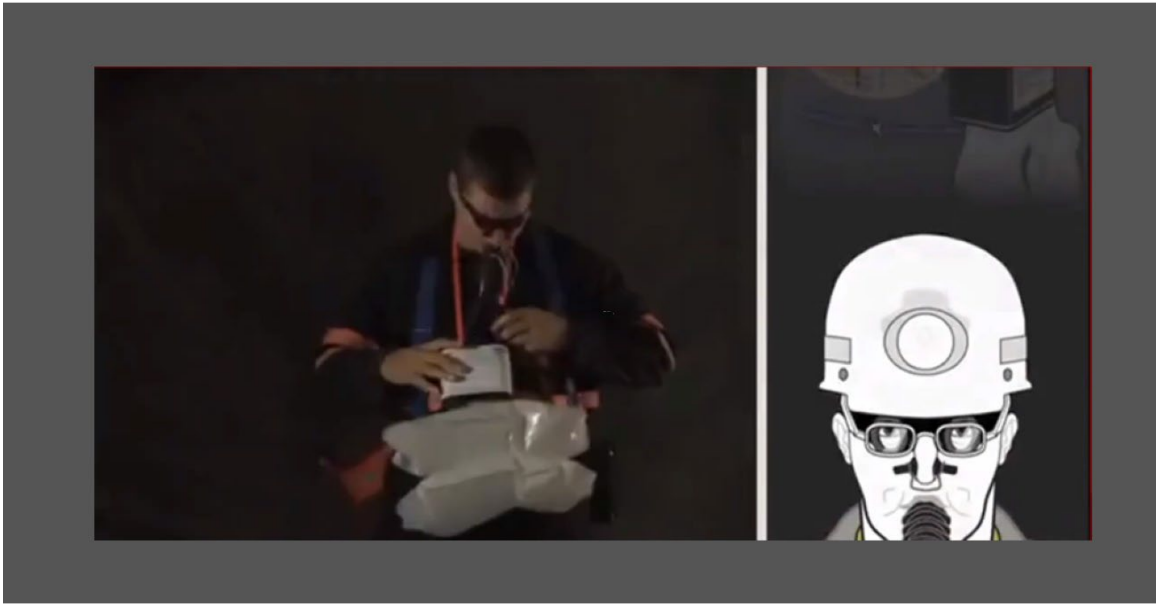
Starting with the Pouch

- ~~KEEP YOUR SCSR filters in its pouch to prevent damage and read the side instructions label on a clean SCSR.~~
- Make sure the pouch holds the SCSR loosely.
- Replace the carrying pouch if it's damaged, or if your SCSR doesn't come out easily.

- NEVER IMMERSE IT IN WATER, and never pressure wash it or clean it with petroleum-based solvent.



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6.4 Checking Indicators

Inspecting the SCSR

Checking Indicators

The SCSR has three indicators that show whether it has been exposed to too much moisture or heat. If the top or bottom moisture indicator turns from half-blue to all-blue, return it and get a replacement. Its service life is over.

If the temperature indicator shows red, if the SCSR has been in storage and is more than ten years old, return it and get a replacement.

Moisture indicator



Temperature indicator



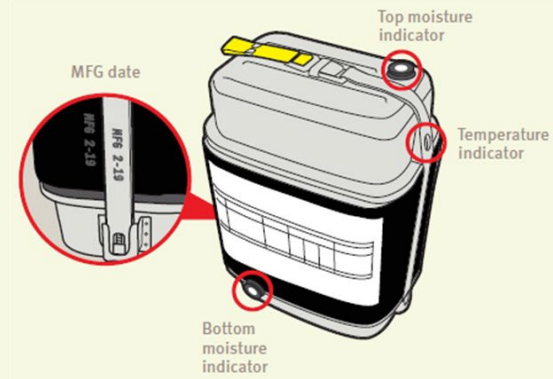
How to determine service life

MFG DATE + 5

SRLDs carried on the job: More than 5 years old? Remove from service.

MFG DATE + 10

SRLDs in storage: More than 10 years old? Remove from service.



6.5 Visual Damage

Inspecting the SCSR

Visual Damage

Checking for External Damage

Your SCSR is designed for the hazards of the mining environment, but it's not indestructible.

- Perform a thorough visual inspection.
- Recognize common signs that the SCSR should be replaced.

Click on the buttons below to see examples of acceptable and what is not acceptable damage.

Acceptable

Unacceptable



Acceptable (Slide Layer)

Inspecting the SCSR

Visual Damage

Acceptable Damage

Good. With minor wear and tear, as shown in these examples, your SCSR is still OK. It will pass a daily inspection.



Acceptable

Unacceptable

Unacceptable (Slide Layer)

Inspecting the SCSR

Visual Damage

Unacceptable Damage

Bad. With damage as shown in these examples, your SCSR may fail when you need it. It will not pass a daily inspection. Return it and get a replacement.



Acceptable

Unacceptable



6.6 Checking the Security Band

Inspecting the SCSR

Introduction

Checking the Security Band

- Stainless-steel security band designed to hold the top and bottom covers tightly in position.
- Ensure it's not bent, broken, loose, or displaced.

If the steel security band is damaged replace the SCSR.



Securityband (Slide Layer)

Inspecting the SCSR

Introduction

Checking the Security Band

- Stainless-steel security band designed to hold the top and bottom covers tightly in position.
- Ensure it's not bent, broken, loose, or displaced.

If the steel security band is damaged replace the SCSR.



6.7 Checking the Fabric Loop

Inspecting the SCSR

Introduction

Checking the Fabric Loop

- Pull the fabric loop on top to open the unit.
- Ensure the clip holds the loop flat.

If the fabric loop is damaged replace the SCSR.



Securityband (Slide Layer)

Inspecting the SCSR

Introduction

Checking the Fabric Loop

- Pull the fabric loop on top to open the unit.
- Ensure the clip holds the loop flat.

If the fabric loop is damaged replace the SCSR.



6.8 Checking the Security Seal

Inspecting the SCSR

Introduction

Checking the Security Seal

- Wraps around the center of the security band on top of the unit.
- Ensure the security seal is not broken.

If the security seal is damaged replace the SCSR.



Don't take chances. If you're not sure your SCSR is safe to carry, ask your supervisor before your shift begins.



Securityband (Slide Layer)

Inspecting the SCSR

Introduction

Checking the Security Seal

- Wraps around the center of the security band on top of the unit.
- Ensure the security seal is not broken.

If the security seal is damaged replace the SCSR.



Don't take chances. If you're not sure your SCSR is safe to carry, ask your supervisor before your shift begins.



i Security seal



i Security band

6.9 90 - Day Full Inspection

Inspecting the SCSR

90 - Day Full Inspection

Every self-contained self-rescuer must be fully inspected four times a year. It's the law.

- Visual inspection can't always tell you if age, physical impact, or other factors have damaged the chemical bed.
- Testing each SCSR with the CSE acoustic solids movement detector (ASMD) every 90 days.



An SCSR with ASMD attached, ready for testing.

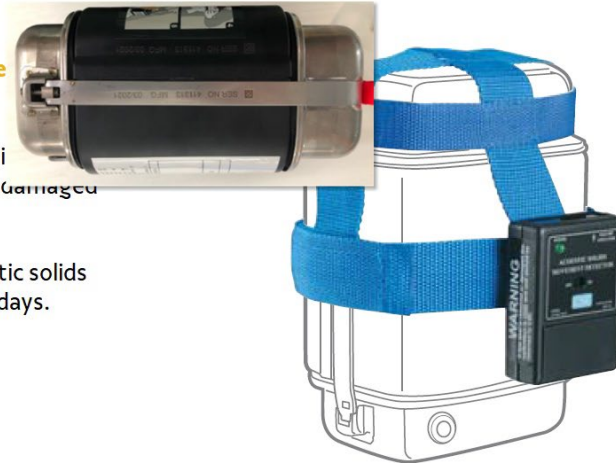
Securityband (Slide Layer)

Inspecting the SCSR

90 - Day Full Inspection

Every self-contained self-rescuer must be inspected four times a year. It's the law.

- Visual inspection can't always tell you if physical impact, or other factors have damaged the chemical bed.
- Testing each SCSR with the CSE acoustic solids movement detector (ASMD) every 90 days.



An SCSR with ASMD attached, ready for testing.

6.10 90 - Day Full Inspection

Inspecting the SCSR

90 - Day Full Inspection

Whose Job is it?

- Trainer, Safety Representative, or Supervisor, you may be responsible for performing 90-day inspections.
- Maintain the ASMD, and use the CSE Spot Checker to make sure it's calibrated.
- *Trained and Authorized* individuals can approve SCSRs for service.



Now lets' watch this video demonstration to review the steps described above.

[Play Video](#)

Inspection (Slide Layer)



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6.11 Question

Inspecting the SCSR

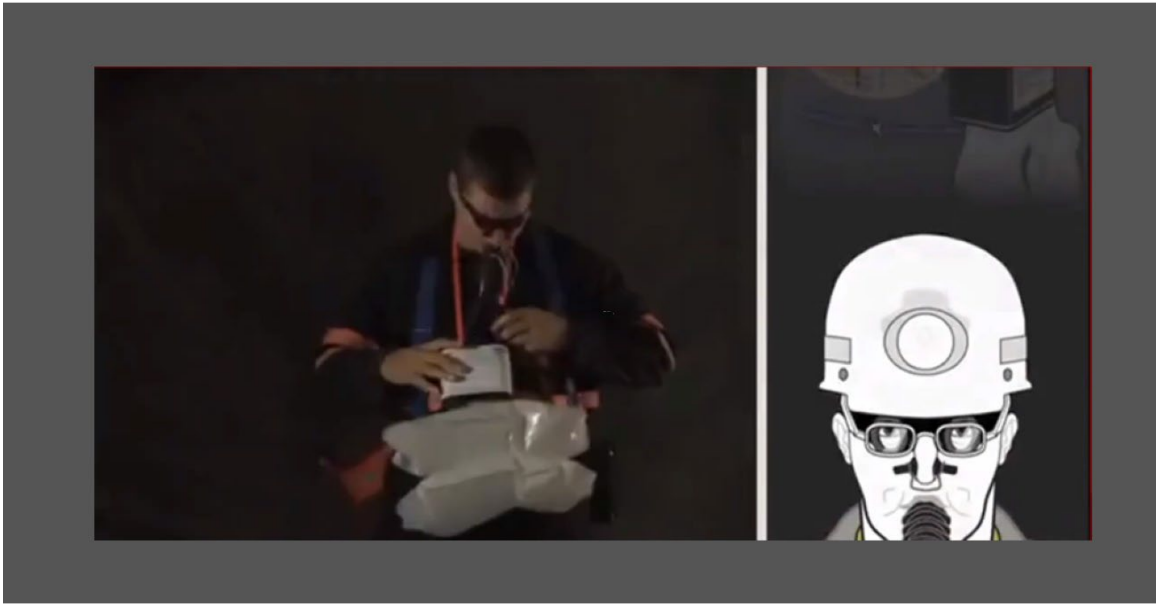


Got a Question?

Submit your question here using Valeforms, be sure to include your first name last name and contact information.

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7. Conclusion

7.1 Conclusion



7.2 Tips for Making your SCSR last longer

Conclusion

This concludes the material for the Self-Contained Self-Rescuer.

You should now have a working knowledge and understanding of:

- How the SCSR works
- Their operation, and the controls
- The procedures on how to properly don, inspect, operate, and maintain the SCSR.



Online Training Survey

Submit your evaluation here using Valeforms, all submissions are anonymous.

Thank you.

[CLICK HERE!](#)