Hot Work Training – Safety Officer Presentation Script

Introduction

Good Morning, Team.

My name is [Your Name], and I'm your Safety Officer. Today, I will be conducting a very important training session on **Hot Work Safety**.

Hot work includes activities like welding, cutting, grinding, soldering, and brazing — any task that creates heat, sparks, or flames. These tasks are common on construction and industrial sites, but they also come with serious hazards if not handled properly.

Purpose of Hot Work Training

The purpose of today's training is to ensure that we all understand the risks associated with hot work and how to perform these tasks safely.

By the end of this session, you'll know:

- The common hazards of hot work.
- The precautions you must take.
- The correct procedures before, during, and after performing hot work.
- How to respond in case of an emergency.

Our ultimate goal is to prevent fires, injuries, and incidents on-site.

What is Hot Work?

Hot work is any activity that generates flames, sparks, or intense heat. This includes:

- Welding (gas or arc)
- Cutting with torches
- Soldering and brazing
- Grinding and sanding metal
- Using heat guns or open flames

These tasks pose a fire risk and may release toxic fumes, making it essential to follow strict safety guidelines.

Pre-Work Preparations

Before performing hot work, follow these critical steps:

1. Permit

Always obtain a **hot work permit** from your supervisor. This ensures that the task is reviewed, and all necessary safety measures are in place.

2. Area Inspection

Inspect the work area thoroughly:

- Remove or isolate flammable materials.
- Ensure proper ventilation.
- Eliminate combustible debris.

3. Fire Watch

Assign a trained **fire watch** to monitor the area during and for at least 30 minutes after the hot work ends.

Personal Protective Equipment (PPE)

PPE is your last line of defense — never neglect it.

- **Welding Helmet**: Protects your face and eyes from sparks, radiation, and heat.
- **Fire-Resistant Clothing**: Wear flame-resistant jackets, pants, and gloves to reduce burn risks.
- **Respiratory Protection**: Use respirators in areas with toxic fumes or poor ventilation.
- **Safety Shoes**: Use steel-toe boots with heat-resistant soles to protect from falling objects and sparks.

---

10 Hazards of Hot Work

1. Fire and Explosion

Sparks or heat can easily ignite flammable gases or materials, causing fires or explosions.

2. Burns

Direct contact with hot surfaces, molten metal, or flames can cause severe skin burns.

3. Electric Shock

Faulty grounding or damaged cables can expose workers to high-voltage shocks.

4. Inhalation of Toxic Fumes

Welding and cutting can release hazardous gases and fumes, leading to respiratory issues.

5. Eye Injuries

Exposure to ultraviolet light or flying sparks can cause eye damage or even blindness.

6. Confined Space Hazards

Hot work in confined areas can deplete oxygen or release dangerous gases, creating suffocation or explosion risks.

7. Structural Fires

Sparks may travel and ignite combustible materials hidden in walls or ceilings.

8. Noise Hazards

Grinding and cutting produce excessive noise that can lead to long-term hearing loss.

9. Trip and Fall Hazards

Hot work areas often have tools, cables, and hoses scattered around, causing trip hazards.

10. Mishandling Gas Cylinders

Improper storage or use of fuel gas cylinders can lead to leaks, fires, or explosions.

---

10 Safety Precautions for Hot Work

1. Get a Hot Work Permit

Never start work without proper authorization and review by a competent person.

2. Clear the Area

Remove, isolate, or cover all combustibles within 10 meters of the hot work area.

3. Fire Watch

Ensure a fire watch is present during and at least 30 minutes after the operation ends.

4. Use Appropriate PPE

Wear full protective gear — helmet, gloves, goggles, fire-resistant clothing.

5. Ensure Proper Ventilation

Use exhaust fans or open windows to avoid buildup of toxic fumes or gases.

6. Inspect Equipment

Check all hoses, cables, and tools for damage or wear before starting work.

7. Keep Fire Extinguishers On-Hand

Place the right type of extinguisher (CO_2, dry powder, etc.) close to the worksite.

8. Avoid Confined Space Entry

Hot work in confined spaces requires additional permits and monitoring.

9. Store Gas Cylinders Safely

Always store upright, away from heat, and with protective caps secured.

10. Display Warning Signs

Install visible signs and barriers to prevent unauthorized personnel from entering the hot work area.

During Hot Work

- **Fire Extinguishers Nearby**: Know the type and location of extinguishers. Keep them ready.
- **No Smoking**: Enforce a strict no-smoking policy around the area.
- **Area Control**: Use barriers and caution signs to keep unauthorized persons out.
- **Emergency Awareness**: Know the emergency exit plan and how to raise an alarm.

Post-Work Procedures

1. Cool Down

Allow all tools and equipment to cool in a safe location.

2. Inspect for Hot Spots

Carefully check the area for smoldering materials, embers, or lingering heat.

3. Report Hazards

Immediately inform your supervisor of any unsafe condition or incident.

Emergency Procedures

If a fire or incident occurs:

1. **Raise the Alarm**: Inform others and activate the fire alarm if needed.
2. **Use Extinguishers**: If safe, attempt to control the fire using the nearest extinguisher.
3. **Evacuate**: Leave the area and move to the assembly point.
4. **Inform Emergency Services**: Provide full details to the emergency response team or fire department.

Conclusion

To summarize:

- Hot work is a **high-risk activity** that requires proper planning and precautions.
- Always **obtain a hot work permit**, wear **PPE**, and follow **safe procedures**.
- Be alert and ready to respond in case of an emergency.
- **If you are ever unsure – STOP and ASK.**

Safety is not just a policy — it's our responsibility.

Thank you for your attention. Let’s stay safe and look out for one another on-site.