

BWSC Generation Services Ltd

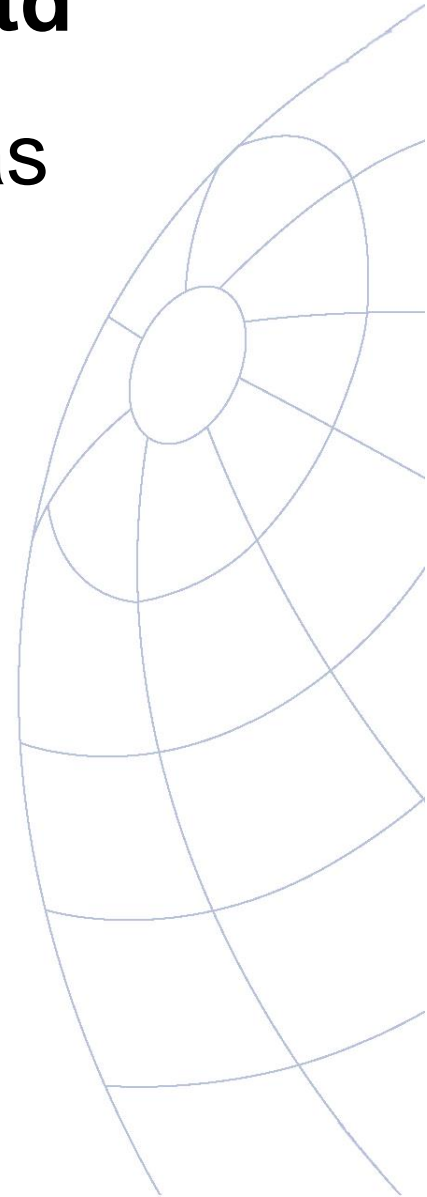
Assessment and Authorisation as



ACCEPTOR

Hot Work

- *Prepared by: Vivienne Williamson*
- *Rev: 0*
- *Approved by:*
- *Date:*



BWSC Generating Services UK Ltd **Safety Rules** defines an
Acceptor – Hot Work as:

“Responsible for following the **Hot Work** procedure as detailed in this BWSC GS UK Site Management Instruction, the **Hot Work Certificate** and the associated **Safety Document**. Responsible for designating suitably trained Fire Watch Person(s) during and after **Hot Work** activities”

Topics to be covered for **Hot Work** at
BWSC Generation Services UK Ltd Sites :



- Definition
- Alternatives
- Hazards Associated with Hot Work
- Procedure
- Responsibilities



Definition of **Hot Work**:

Any temporary operation involving the introduction of open flames or production of heat or spark, including, but not limited to: Brazing, Cutting, Grinding, Soldering or Welding”.

The **Safety Controller** will advise as to whether an activity is considered **Hot Work**

If in doubt ask!



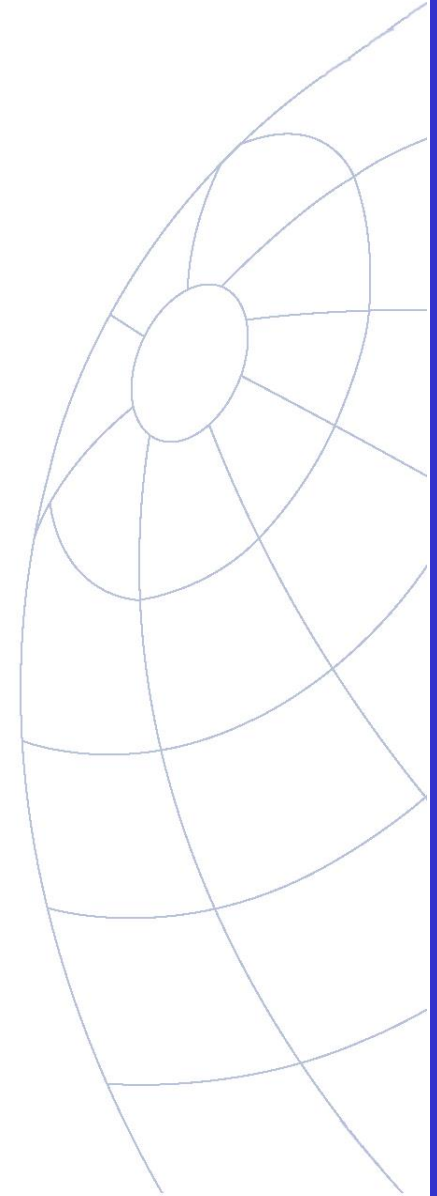
Alternative working practices to **Hot Work**:

- Using Alternative Methods:
 - Any Hot Work required should be identified in the planning process by the person requesting the work
 - The work should be discussed and reviewed with the **Appointed Person – Hot Work Assessor** and the **Safety Controller**.
- Alternatives could include: -
 - Bolting instead of welding
 - Hydraulic shears or reciprocal saw, rather than torch or disc cutting
 - Mechanical Clamps instead of welding
 - Threaded pipe or tube connectors instead of torch soldered joints
 - Hand filing instead of mechanical grinding



Alternative working practices to **Hot Work**: Continued.....

- Moving the work to an alternative area:
 - Workshop /Designated area
 - Risk Assessments allow hot work in these areas
(no further assessments required)



Hazards associated with **Hot Work**:

- Fire caused by heat transfer onto a flammable material
- Explosion caused by flammable materials reaching their explosive limit
- Burns caused by heat transfer from work area
- Poisonous Fumes/Vapours produced by Hot Work activity
E.g.: grinding/welding galvanised metal
- Oxygen depletion caused by welding/Cutting

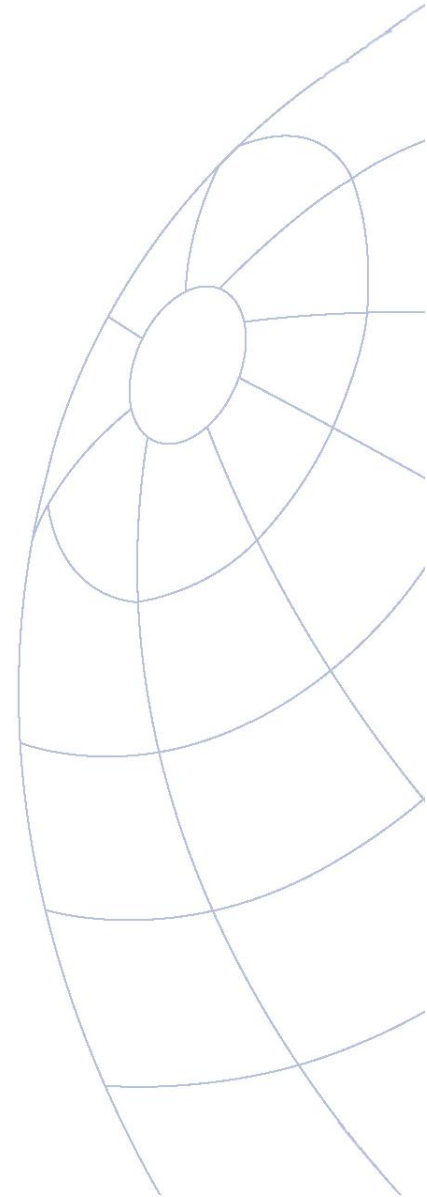


What to do if **Hot Work** is identified during the course of the work:

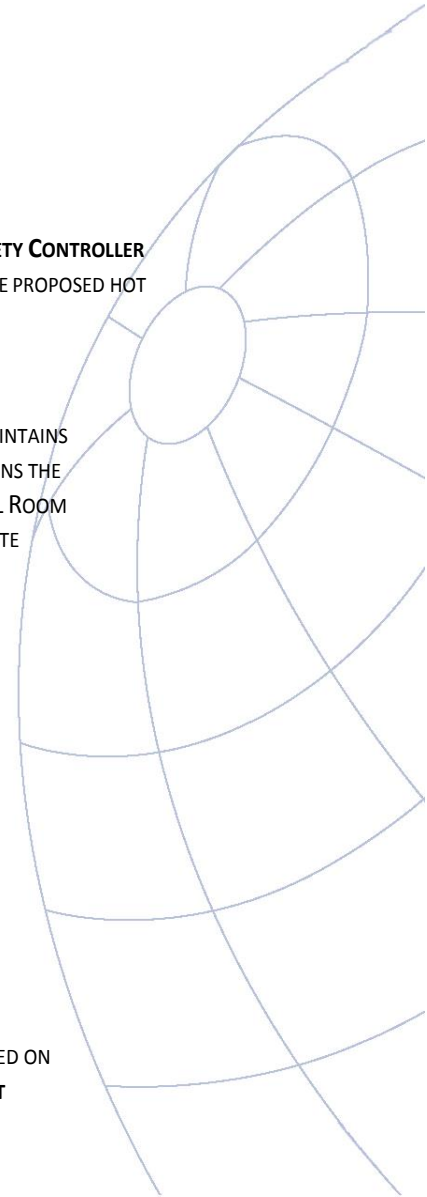
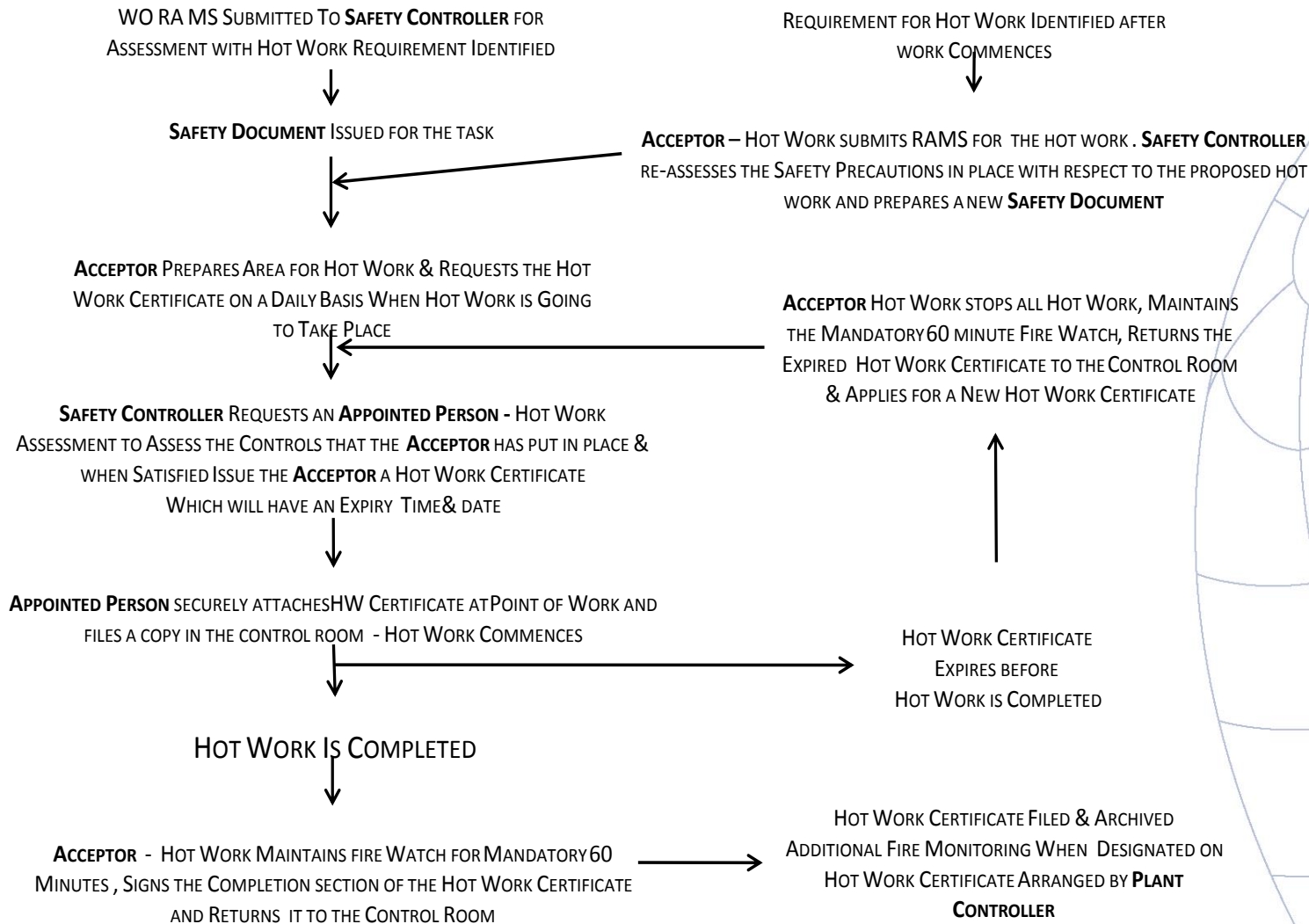
- Any Hot Work required should be identified in the planning process by the person requesting the work and reflected in the **RAMS** accordingly.
- If though, **Hot Work** is identified during the work process the requirements are: -
 - A new **RAMS** is required to include the **Hot Work**
 - The original **Safety Document** is cancelled
 - The **Safety Controller** prepares a new **Safety Document** for the task to including **Hot Work**
 - The **Acceptor – Hot Work** receives the new **Safety Document**
 - A **Hot Work Certificate** is issued and posted at the work site



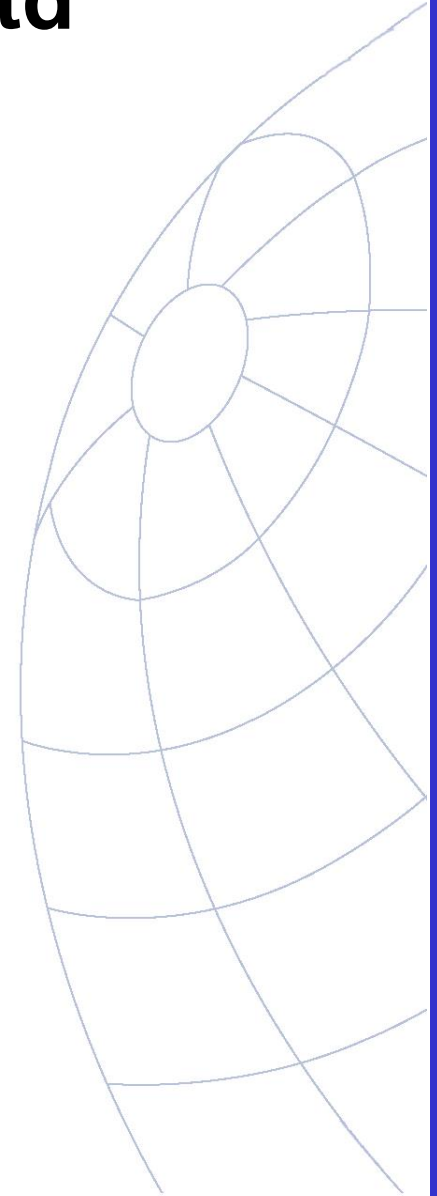
HOT WORK CERTIFICATE		IN CASE OF EMERGENCY CONTACT CONTROL ROOM		
Hot Work Location		Cert No		
Nature Of Work		Safety Doc No		
<p>A Hot Work Certificate is required for any temporary operation involving open flames or producing heat and/or sparks. This includes, but is not limited to: Brazing, Cutting, Grinding, Soldering</p>				
<p>To Be Completed At the Location Where Hot Work Is To Be Carried Out By the Appointed Person – Hot Work Assessment and the Acceptor – Hot Work, requesting the Certificate</p>				
PRECAUTIONS		Yes	No	N/A
All Alternatives to Hot Work Have Been Considered				
Consideration Of Moving Work To Designated Workshop Area Made				
Suitable Fire Protection Equipment Serviceable And Available At Hot Work Location				
Automatic Fire Control/Detection Systems In Area Shielded/Rendered Inoperative				
REQUIREMENTS WITHIN 35FT (11M) OF WORK		Yes	No	N/A
Area to be cleared and remain clear of all Flammable Liquids, dust, lint and oily deposits				
Explosive atmosphere in area eliminated and monitored.				
Floors to be swept clean.				
Combustible floors covered with fire-resistant sheets.				
Remove other combustibles where possible, otherwise protect with fire-resistive tarpaulins or fire resistant shields.				
All wall and floor openings shielded.				
Fire-resistive tarpaulins placed beneath the work area.				
Protect or shut down ducts/fans that might carry sparks to distant combustibles.				
WORK ON/NEAR WALLS, CEILINGS OR ROOFS		Yes	No	N/A
Construction is non-combustible and without combustible covering or insulation.				
Combustibles on other side of walls, ceilings or roofs are moved away.				
WORK ON ENCLOSED EQUIPMENT		Yes	No	N/A
Enclosed Equipment cleared of all combustibles				
Containers purged of flammable liquids/vapours				
Pressurised vessels, piping and equipment removed from service, isolated, purged and vented.				
FIRE WATCH/HOT WORK AREA MONITORING		Yes	No	N/A
Fire watch shall be maintained during and for a further 60 minutes after work, including any breaks in hot work.				
Fire watch is supplied with suitable extinguishers. (fixed point fire extinguishers must not be removed)				
Fire watch is trained in use of equipment and in raising alarm.				
Fire watch required in adjoining areas, above and below.				
Monitoring of Hot Work area required for an additional period (minimum 3 hours) and Plant Controller Informed				
Additional Precautions Required:				
ISSUE SECTION				
Trained Fire Watch Person Available For Duration Of Hot Work Activities		Name(s):		
To be completed by Appointed Person – Hot Work Assessment.				
I confirm that the location below has been examined and all necessary precautions above identified to ensure safe execution of hot work				
Name	Signed	Time	Date	
This Hot Work Certificate Is Valid Until		Time	Date	
To be completed by Acceptor – Hot Work.				
I verify that the above location has been examined, the precautions checked on this Hot Work Certificate will be taken to prevent fire. Hot work will not commence until I have received a Safety Document and all work will cease when this assessment expires				
Name	Signed	Date	Time	
COMPLETION SECTION				
To be completed by Acceptor – Hot Work.				
Hot Work has been completed and all sources of ignition removed. The work area and all adjacent areas have been inspected for sparks/heat upon completion/suspension of the work and for an additional period of 60 minutes after all hot work ceased				
Name	Signed	Date	Time	



BWSC-SI-SR-016 - HOT WORK CERTIFICATE FLOW CHART



BWSC Generation Services Ltd



The Responsibilities of Individual's

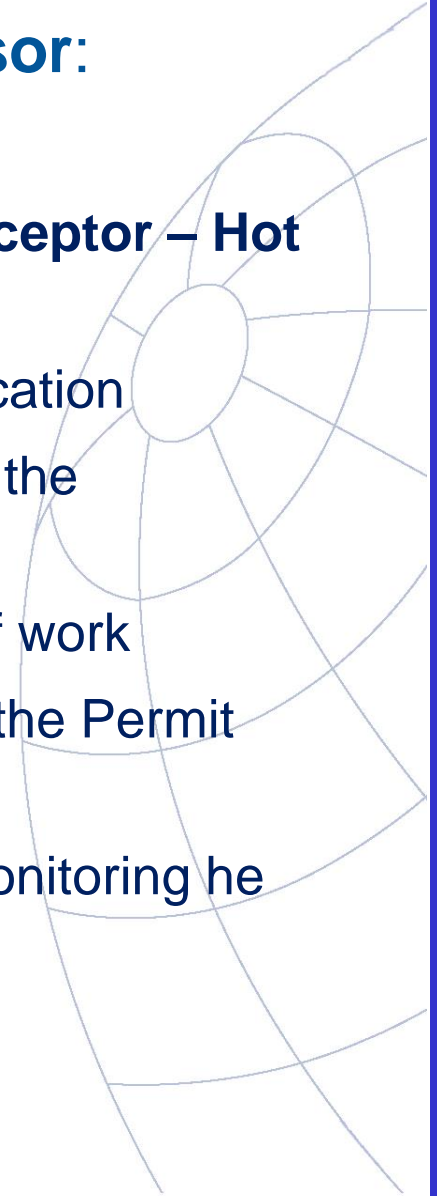
The **Safety Controller**:

- Reviews the work order RAMS and prepares a **Safety Document** for the task
- Notifies the **Appointed Person - Hot Work Assessor** that a Hot Work Certificate will be required
- Informs the **Plant Controller** of any **Hot Work** area monitoring required after the **Hot Work** Permit is cancelled



Appointed person – Hot Work Assessor:

- Discusses possible alternatives to **Hot Work** with the **Acceptor – Hot Work**
- Carries out the Hot Work assessment at the Hot Work location
- Completes the **Hot Work Certificate** in Conjunction with the **Acceptor – Hot Work**
- Posts the completed **Hot Work Certificate** at the point of work
- Maintains a copy of all current **Hot Work Certificates** in the Permit Office/Control Room
- Reports to the **Safety Controller** about any additional monitoring he has designated on the **Hot Work Certificate**



Role and Responsibility of **Acceptor** – **Hot Work**:

- Reads and understands the requirements detailed on the **Hot Work Certificate** before signing
- Designates a trained **Hot Work - Fire Watch** person to remain in attendance at the **Hot Work** location during breaks and when **Hot Work** activities have ceased, **Minimum 1 hour!**
- Ensures **Hot Work - Fire Watch** person has adequate means of communication with Control Room for the duration of the **Hot Work**
- Ensures that if any safety measures fail (E.g.: forced ventilation) then Hot Work shall be stopped immediately



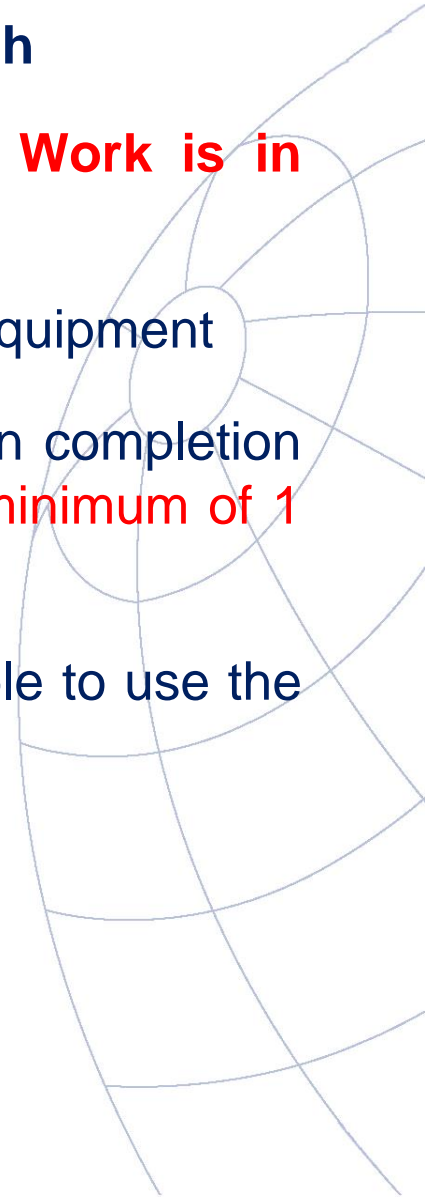
Role and Responsibility of **Acceptor** – **Hot Work**: Continued.....

- Ensures no Flammable materials are brought into the **Hot Work** area and that designated fire fighting equipment remains at the work location during **Hot Work**
- Ensures good Housekeeping for the duration of the **Hot Work**
- Checks that the area is sufficiently cool and that the minimum requirement of **1 hour** fire watch has elapsed before withdrawing the **Hot Work - Fire Watch**
- When the fire watch is completed the **Hot Work - Fire Watch** will fill out the completion section of the **Hot Work Certificate** and return it to the Control room informing the **Safety Controller** of any requirements on the **Hot Work Certificate** for additional monitoring



Role and Responsibility of **Hot Work - Fire Watch**

- **Shall not carry out any other work while the Hot Work is in progress**
- Trained and competent to use the available fire fighting equipment
- Remains at the **Hot Work** location during breaks and on completion of the work as directed by the **Acceptor – Hot Work** (minimum of 1 hour after Hot Work ceases)
- Maintain communications with the Control Room - be able to use the Site Radio.
- Shall be assessed in **Hot Work - Fire Watch** Duties



In Summary:

- **Hot Work** can only commence after a valid **Safety Document** and **Hot Work Certificate** has been completed, signed and issued
- **Hot Work** must cease when the **Hot Work Certificate** expires
- It is the **Acceptor – Hot Work** responsibility to make sure all of the requirements of the **Hot Work Certificate** are implemented and followed
- The **Hot Work - Fire Watch** must monitor the area for a minimum of **1 hour** following the completion of any hot work, including breaks



In Summary:
continued.....

- The **1 hour** fire watch period must be completed before returning your **Safety Document** each day
- On completion of the **Hot Work** do not sign the cancellation section of the **Hot Work Certificate** until after the **1 hour** fire watch



**Thank You For
Your Attention.**

Be Safe!!