
FSR 4.3.:
RED TAGS, YELLOW TAGS, BLUE TAGS AND
DCS RED TAGS

Date : 06.07.08

Revision: 9

Page : 1 of 10

1. SUBJECT

Red tags, yellow tags, blue tags, yellow seals and Distributed Control System (DCS) red tags.

2. OBJECTIVE

To regulate the use of red tags and yellow tags, in order to ensure the safety of personnel and equipment.

To explain the meaning of a yellow seal; describing under what circumstances a seal may be broken and which system is used to make sure that the seal is replaced and checked on periodically thereafter.

To establish proceedings on the use of red tags (DCS).

3. DEFINITIONS

3.1. Red tags (warehouse no. 116.458)

These **FORBID** the use of any equipment. They are always used together with red tag masters (warehouse no. 116.457).

3.2. Yellow tags (warehouse no. 116.474)

These oblige people to ascertain, through the use of yellow card masters, the condition of the equipment to prevent erroneous use thereof. They are always used together with yellow tag masters (warehouse no. 116.473).

3.3. Blue tags (warehouse no. 142.793)

Blue tags point out the location where piping must be CUT or where "**hot-taps**" should be performed.

FSR 4.3.:
RED TAGS, YELLOW TAGS, BLUE TAGS AND
DCS RED TAGS

Date : 06.07.08

Revision: 9

Page : 2 of 10

3.4. Yellow seals (warehouse no. 107.099)

Yellow seals are a practical form of a permanent yellow tag.

Red tags (DCS)

Red tags (DCS) are an electronic form of red tags that electronically prevent the use of a DCS tag. They are, in some cases, placed by the DCS operator as a part of the safety measures for maintenance work.

4. WHEN ARE RED TAGS REQUIRED?

4.1. Every time this is specified in a work permit.

For example in case of:

- * Gaining access to equipment.
- * Safety measures taken for interruption or opening piping or equipment.
- * Removal of a safeguard against high or low pressure.
- * Interruption of the control mechanism of electrical equipment.
- * Interruption of electricity supply to installations or rendering equipment immobile.
- * Protection against improper use of seals, blind flanges, pans, control equipment, switches and removal of locks and locking mechanisms.

4.2. When, after consultation between Operations (D) and the Engineering (D), red tags are deemed necessary. A work permit does NOT automatically lead to red tags. Red tags do not lead automatically to a work permit.

4.3. Whenever high risk work (normal PBW) is performed by shift-personnel on their own site/division, although not in the time of their own shift.

FSR 4.3.:
RED TAGS, YELLOW TAGS, BLUE TAGS AND
DCS RED TAGS

Date : 06.07.08

Revision: 9

Page : 3 of 10

- 4.4. When an air hose is coupled to a utility point of the PLANT AIR NET for a venturi for ventilation of equipment, taking in consideration access thereto, the coupling of such hose to the utility point will be provided with a red tag.
This red tag must be recorded in the red tag master used for access purposes.
This must prevent undue interruption of ventilation during access.
When the venturi must be stopped in order to perform a test for oxygen content by Operations, the permit is in the hands of Operations; Operations reopens the air supply after finishing the tests and confirms this on the reverse of the permit.
- 4.5. When a power point/socket is used in the field to supply electricity for ventilation purposes, said socket of this electric supply will be provided with a red tag.
This red tag must be recorded in the red tag master used for access purposes.

5. WHEN ARE YELLOW TAGS REQUIRED?

- 5.1. When personnel should be informed on the condition of the equipment, in order to prevent its erroneous use.
- 5.2. Yellow tags may NOT be used as red tags.

6. RULE/REGULATION

6.1. Red tags

6.1.1. General

This system includes white red tag masters and round red tags. The red tag master is kept in the main control room in the office of the gaffer/foreman (e.g. visible on a notice board or together with the work permits).

NOTE: Concerning electrical sub-stations: The red tag master of the red tags that are hung upon apparatus/machines (power switch, *MCC-board*, trip switches in the distribution board, ...) will still be kept with the owner of the electrical consumer that is out of operation (usually with Operations). This means that on MCC's level the red tag masters are always kept by Operations.

FACTORY SAFETY REGULATIONS (FSR)

FSR 4.3.:
RED TAGS, YELLOW TAGS, BLUE TAGS AND
DCS RED TAGS

Date : 06.07.08

Revision: 9

Page : 4 of 10

On the red tag master there is a reference to all corresponding red tags (Section IV).

It is essential for the proper operation of the red tag system that a red tag is always attached to equipment, the number and the location of said tag is immediately recorded in Section IV of the red tag master and vice versa, that is to say, when red tags are removed, they are immediately labelled "off" in the same Section.

Tags applied loosely can never be related to safety measures and red tags that are not written off will result in installations remaining disabled after the "end of the work".

The fact that red tags have been attached to the equipment does not necessarily allow work to start. This can only happen when the equipment is released by using the proper work permit.

If both are used, work permit and red tag master numbers must be registered.

More than one permit for safety measures can refer to the same red tag master. Therefore, all relevant references to the work permits are entered in Section II of the red tag master. The order in which these are entered has no connection whatsoever with the sequence in which the work is to be executed!

6.1.2. Issuing of red tag masters

- Usually the red tag masters are issued by Operations inside the framework of the agreements in par. 4 above.
- When electrical or electrically driven equipment must be rendered safe, the person who draws up the work permit will initiate the red tag master himself and will also take note of the id. numbers of the power switches of said equipment in Section I of the red tag master.
- For the issue, the operator will fill out Section I, II and IV (reverse of the list of the red tags). In case of complex or non-current preparations he must call on detailed information provided by (day) supervision.
Each work permit that had its red tag master drawn up, should be registered with all relevant information in Section II of the red tag master.
- Should there not be enough space in Section IV to report all red tags, additional red tag masters will be stapled, as an annex, with the same number as the first red tag master. The possible extra red tag masters will be noted as annexes

FSR 4.3.:
RED TAGS, YELLOW TAGS, BLUE TAGS AND
DCS RED TAGS

Date : 06.07.08

Revision: 9

Page : 5 of 10

on the first red tag master.

In case of complex safety measures an adapted red tag master can be used. This red tag master must include at least all the functions of the standard red tag master. In the case of gaining access or work with high temperatures the elements of the physical protection must be clearly grouped in a separate heading in Section IV of the red tag master. See example in annex 1a and 1b of GWP-9-002.

- When work is organized whereby more than one permit refers to a red tag master, the organizer of said permit releases the permit and the corresponding red tag master. He then registers the numbers of the various permits and the red tag master and specifies on the permits their logical inter-connection: e.g. by mentioning on the PAW that PBW must be completed before PAW can be released. He also registers the number of the red tag master on the various permits and delivers the total package to the shift for further processing.
- When the organizer of a permit considers that special precautions should be taken in order to restart the equipment whereby red tags are used, he releases the red tag master that corresponds to the permit. He specifies on the front page (Section III) the necessary special measures for restarting the equipment to be considered.

6.1.3. Placement of red tags

- Red tags are placed on each seal, switch, control instrument, blind flange, pan, lock or isolating equipment of any kind which, if used by accident could bring about danger to personnel or equipment or otherwise damage equipment during the execution of the work. This placing is done by Operations only, in other words the operator.
- The red tags have a serial number. This number is recorded on the red tag master (Section IV), with the description of the place, name of the person who places it, date and time of placement thereof. One red tag can only be registered on one red tag master.
- If more than one red tag is hanging on the same equipment, each must show the number of the respective red tag master.
- If DCS red tags are used, they will be registered just as the red tags in the upper part of Section IV of the red tag master.

FSR 4.3.:
RED TAGS, YELLOW TAGS, BLUE TAGS AND
DCS RED TAGS

Date : 06.07.08

Revision: 9

Page : 6 of 10

6.1.4. Removing red tags

- Every time a work permit is registered for “end of work”, the date for closing of said permit is reported by Operations in Section II of the red tag master.
- Whenever all work permits are reported by ALL Engineering teams, Operations will remove all red tags of the corresponding red tag master of the equipment, and register this on the red tag master in Sections III and IV. This goes together with making the installations operative for further operations. Especially in the case of vents and drains it is important to secure the proper closure of the installation. As for other valves, the state in which they must be placed can depend on the following operations situation where the installation must be placed; this can be determined by the production planning; if there is doubt as to the this situation, deliberation with supervision is required to determine the required situation.

If, when filling out Section IV, it turns out that one or more red tags have not been recovered, this will be reported in “remarks” and will be discussed with supervision before closing Section III. The results of this will be reported in “remarks” in Section III.

For special agreements as to the drawing of pans through Maintenance, see GWP-9-003, par. 2.3.

Red tags will also be removed from DCS by the panel operator after end of works; this removal will also be formally noted in Section IV of the red tag master.

If there are special requirements noted on the permit in question by the drafter for restarting the equipment, these will be complied with and confirmed (Section III) before confirmation is given that the equipment is to be restarted.

Red tags are only to be removed by Operations or as requested by Operations. Red tags assigned to equipment that has been isolated, will be brought back to Operations by Maintenance after such isolation.

- Red tags that bear a registration number of a red tag master, will be destroyed. The red tag masters will be kept for three months by Operations, together with the completed permit.

6.1.5. Temporary removal of the red tag master

- General

FACTORY SAFETY REGULATIONS (FSR)

FSR 4.3.:
RED TAGS, YELLOW TAGS, BLUE TAGS AND
DCS RED TAGS

Date : 06.07.08

Revision: 9

Page : 7 of 10

In exceptional circumstances it is necessary for a part of the system being worked on and being taken into operation temporarily, as in the case of controlling the revolution direction of an engine, to test the safety of the speed of a turbine by running it, etc, ... the tag for the temporary removal of the red tag master anticipates that such works can be executed without shutting down the red tag master and corresponding work permits.

All temporary removals must be approved by Operations and will only be allowed for a short period of time, provided the safety can be assured.

- Operations and Engineering will discuss the necessity of the tag for temporary removal of the red tag master. They will inform all people involved in their respective groups accordingly.
- The person who requests the temporary removal must consult with the red tag master AND inform possible other involved Engineering parties.
All Engineering teams involved in the work permits concerned with the red tag master, will confirm the permit with Operations for the term of the removal and sign the tag for temporary removal stating date and time of such, before the removal takes place for the removal of the red tags. Operations will sign the tag, specifying date and hour as approval of the temporary removal and will staple the tag to the red tag master in question. The registration number of the temporary removal tag will be noted down in Section II of the red tag master. The number of the red tag master will be also registered on the tag for temporary removal.
- All red tags being temporarily removed must be registered on the tag, with initials and name and time.
- Operations will give permission for temporary start of procedures, filling out the proper Section.
- After executing the temporary work, Engineering will fill out the temporary removal tag.
- The red tags that are replaced must be re-registered on the tag, stating name and time.
- The tag for temporary removal of the red tag master will then be removed from the corresponding red tag master and ticked off in Section II of the red tag master. Operations and Engineering will inform all people involved, each in their own group, as well as other possible engineering persons, that the work on the permits with reference to the red tag master, can be resumed.

FSR 4.3.:
RED TAGS, YELLOW TAGS, BLUE TAGS AND
DCS RED TAGS

Date : 06.07.08

Revision: 9

Page : 8 of 10

- If, after the work that pertains to the removal is no longer necessary to release the permit, then the red tags are no longer required to be replaced, if all Engineering tick off their permits on the tag for "end of work". The red tags can then immediately be noted under the heading "Off" in Section IV of the red tag master.
- For the use of the temporary removal by Operations during preparations of a red tag master/work permit, see GWP-9-002, par. 3.3.3

6.1.6. Periodical check-ups on red tags and red tag masters.

- In the case of extended work, (longer than 1 month), Operations should check regularly whether the red tag master is still in proper order, and whether all red tags still hang in their proper place.
- At least once a month, Operations should check if the red tags and the red tag masters are filled out and used properly and/or if there are any superfluous or **superannuated** tags among the red tag masters, that can affect the hazard warning effect. The equipment should also be checked for the prompt removal of old red tags.
The practical working of this will be specified by division/section (on notice boards, card index, ...)

6.2. Yellow tags

6.2.1. General

This system comprises yellow main tags and triangular yellow tags.

The main yellow tag is kept in the control room in question or the office of the foreman (e.g. visible on a notice board or together with the work permits). It is referred on the main yellow tag to all yellow tags. Each yellow tag **OBLIGES** the user to be informed on the state of the equipment.

6.2.2. Issuing of a main yellow tag.

Operations is responsible for the drawing up of the main yellow tag and the placing and removal of yellow tags.

FSR 4.3.:
RED TAGS, YELLOW TAGS, BLUE TAGS AND
DCS RED TAGS

Date : 06.07.08

Revision: 9

Page : 9 of 10

6.2.3. Placing of yellow tags.

In order to place a yellow tag on the equipment, a main yellow tag will have to be filled in, whereon the registration numbers of the tags in question and the reason for their placing will be registered.

6.2.4. Removing yellow tags.

After removing the yellow tags, this will be recorded on the main yellow tag.

When all yellow tags that are recorded on the main yellow tag are removed and cancelled, the main yellow tag will be destroyed.

6.3. Blue tags.

6.3.1. General.

Blue tags mark the location where pipes are CUT or where the so-called "**hot-taps**" must be performed. They are square blue tags with a white rim (order tags). Blue tags have sequential numbers.

6.3.2. Placement.

Operations is responsible for the placement of these blue tags. The sequential number of the blue tag is specified on the work permit.

The confirmation of the blue tags must happen simultaneously with the specification of the location for Engineering.

6.3.4. Adjustments marking/tag placing with major shutdowns.

With major shutdowns of projects whereby a great part of the equipment/piping has to be removed, an adjusted tag system **can** be followed: the use of blue tags can be replaced by painting over (orange fluorescent-RALn°) for the parts to be removed, including the places where the cuts must be made. This is also only allowed in zones that are totally safe..

FSR 4.3.:
RED TAGS, YELLOW TAGS, BLUE TAGS AND
DCS RED TAGS

Date : 06.07.08

Revision: 9

Page : 10 of 10

Work procedures: the place where cutting is performed must be painted over the whole area of the piping.

7. YELLOW SEALS

Yellow seals are placed by Operations and state that it is important that the part of the equipment stays in the sealed state.

They do not forbid the use of the this part of the apparatus but make the user aware that he will will bring about an abnormal use by doing so.

Therefore it is important to take 2 things into consideration:

- Be informed as to why the apparatus is sealed in this situation; the operations instruction normally contains a list of sealed locks per unit as well as additional information about the circumstances where the seals may be broken and the measures that have to be taken in that specific case.
- Take care that an administrative trace is left about the change of the situation, in order that afterwards the situation can be placed normally.
- The GWP-9-002 states the number of possibilities as to how this can be brought about.

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