# Annex of potential inspection questions, verification Items and other advice when inspecting Pressure Relief Systems

A: Questions that inspectors can use addressing Pressure Relief Systems

1. Describe the plant’s pressure relief system and the philosophy behind it
2. Describe how the different components of the pressure relief system are covered in the maintenance and test programmes, and how this is documented. (Historic information is important).
3. Before maintenance, are pre-tests conducted in order to determine opening pressure (after being in service since the last inspection)?
4. Explain the routines for the handling of deviations from test- or maintenance frequencies.
5. How do you ensure that changes in the system do not not go beyond the design basis? Routines for this?
6. Do all components in the pressure relief system have a unique identification?
7. Describe routines and practices regarding temporary disconnection of parts of the Pressure Relief Systems
8. What do you consider as the most critical part of the Pressure Relief System and why?
9. Describe periodic checks of:
   1. inlet and outlet piping (fixation, corrosion, …)
   2. tracing (if present)
   3. indicators or alarms
10. How do you ensure that people working in the plant understand the importance of a well-functioning pressure relief system?

See also section 4 for ideas on what to ask for.

B. Possible verification issues

1. Check identification of the equipment on site. Does this align with to what you have been told?
2. Select some tag-numbers and check the different documentation for the maintenance and testing of this equipment. If set frequencies are not followed, is this treated as a non-conformity and is the possible negative effect of this change evaluated?
3. Look at reports from the verifications and inspections of notified bodies.
4. Check out a rupture disc that has been changed at one point in time.
   1. Is the replacement disc according to the original specification?
   2. Are the materials suited for the working temperature and the atmosphere in which the rupture disc is located?
   3. Is the bursting pressure less or equal to the design pressure of the vessel?
   4. Is the rupture disc is mounted before a safety valve? Is it of a non-fragmenting type and is there pressure monitoring between the rupture disc and the safety valve?

See also section 4 for ideas on what to ask for.