



REPUBLIC OF CROATIA
MINISTRY OF ENVIRONMENTAL PROTECTION
PHYSICAL PLANNING AND CONSTRUCTION

Croatian evaluation of the ETAN, Ivanić Grad Safety report

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Convention on the Transboundary Effects of Industrial
Accidents

Introduction 1

Sectoral checklist (SCL) as tool for the evaluation

- a. the elements of the checklist that are not clear
- b. what should be improved in the checklist (examples to be added, clarity of the questions etc.)
- c. what were the obstacles/difficulties that you encountered in evaluating the safety report using the current version of the checklist
- d. what are, according to your country, the questions to be verified during the simulated inspection at the facility
- e. more in general on what elements should be based the preparation of inspections connected to the evaluation of safety reports

Introduction 2

The rationale behind splitting the questions among the three categories is:

- „complete“ questions that would be used to verify the presence of the required, essential information that a safety report should contain
- „correct“ and „credible“ - questions that would be used to verify the ones in complete (to cross-check them)

Introduction 3 - Examples

“Complete“

- "are the accidental scenarios described in the safety report?"

“Correct” and “Credible”

- In order to understand whether the scenarios are calculated correctly or in a credible way, you need detailed knowledge of accident models.
- "are the parameters given to calculate the scenarios by a third party (following the approved accidents models)?"
- If such information is available, the author of the safety report shows confidence in his own assumptions/calculations.

Introduction 4

For the evaluation you should apply the following:

- for every "no" checked, the safety report would not be acceptable.
- for every "limited" will show the need for clarification.
- Some of the "complete" and "correct" questions might need to be verified during the on-site inspection.

No.	REVIEWED ITEM	EXAMPLE			
			Yes	Limited	No
1. SCL description of the environment and site					
1.1 SCL description of the environment					
COMPLETE			COMPLETE		
1.1.1	Is the general description of the region provided?	Maps/drawings which show site and surrounding like roads, water ways, rails, settlement, harbors, airports		X	
1.1.2	Is the description of the land-use situation provided?	Residential areas, recreational areas, traffic routes, factories, agriculture, forests	X		
1.1.3	Are the special sensitive sites both manmade and natural identified?	Hospitals, schools, conservation areas, monuments, protected sites		X	
1.1.4	Are potential natural hazards described?	<ul style="list-style-type: none"> •Riverine flooding, flash floods from sealed surfaces, mudslides •Seismic events (volcano, earthquake, tsunami), subsidence •Tornado, storm •Avalanches, snow, ice 			X
CORRECT			CORRECT		
1.1.5	Is the description of the land-use situation up to date?	New traffic routes, settlements, sports facilities, industry		X	
1.1.6	Does the described potential natural hazard correspond with the given maps/information for the site?	<ul style="list-style-type: none"> •Near rivers - flooding •Seismic events - local information by authorities •Mudslides, subsidence - geological information •Storm - meteorological information 		X	
CREDIBLE			CREDIBLE		
1.1.7	Are the natural events in the past and their effects reviewed?	<ul style="list-style-type: none"> •Maximal flood in the past (e.g. 10 years) •Failure of supply depending on snow/ice •Damage of buildings/installations by storms 			X

No.	REVIEWED ITEM	EXAMPLE	EVALUATION		
			Yes	Limited	No
1.2 SCL description of the site					
COMPLETE			COMPLETE		
1.2.1	Is a detailed site plan provided?	Showing buildings, roads, installations, tanks		X	
1.2.2	Are the general activities carried out on site described?	<ul style="list-style-type: none"> •Process flow diagram •Description of loading, unloading, storage, production, piping 		X	
1.2.3	Is the technical infrastructure described?	<ul style="list-style-type: none"> •supply with electricity, steam, coldness, nitrogen, water, natural gas •handling of waste water/gases •incoming raw materials, outgoing products 		X	
1.2.4	Is the list of safety critical installations enclosed?	<ul style="list-style-type: none"> •Tanks, vessels, pumps, piping •Flares, catchment areas • Safety valves, instrumentations 		X	
CORRECT			CORRECT		
1.2.5	Does the listed safety critical installation corresponds with the qualifying criteria?	<ul style="list-style-type: none"> •critical tanks/vessels are identified by mass •critical pumps/piping are identified by flow •flares, catchment areas are identified by relevance for outflow 	X		
1.2.6	Are the activities of the other companies on the site described?	Working, production, storage, handling of hazardous substances			X
CREDIBLE			CREDIBLE		
1.2.7	Are the distances from other industrial, commercial, agricultural or sensitive facilities given?	working, production, storage, handling of hazardous substances	X		
1.2.8	Are the threshold criteria for safety critical installations defined?	Criteria according to relevant regulation for flow, mass, safety function		X	

No.	REVIEWED ITEM	EXAMPLE	EVALUATION		
			Yes	Limited	No
	SCL 1 acceptable?			X	
EVALUATION of SCL 1-Summary					
<p><u>Notes:</u></p> <p>Descriptions and maps are insufficient Most of other data are found in other documents</p>					

No.	REVIEWED ITEM	EXAMPLE	EVALUATION		
			Yes	Limited	No
2. SCL main activities and product for single installations					
COMPLETE			COMPLETE		
2.1	Is the technical description of the installation provided?	Operating temperature/pressure/flow/level, rotational speed/power, explosion protection of equipment	X		
2.2	Are the operating procedure for the anstallation defined for normal and abnormal operations?	<ul style="list-style-type: none"> •Description of process based on named devices •Description of action depending on threshold values of instrumentation •Description of action by staff depending on alarms 		X	
2.3	Is the process control concept described?	Range for normal operation, alarm values, process control concept (e.g. SIL)		X	
2.4	Are the protective systems described?	<ul style="list-style-type: none"> •Blow down, flare stack, pressure relief valves, emergency shut-off, over-fill protection/level control, fire protection (sprinkler, deluge, hydrants, foam, CO2, powder), •Gas detection 	X		
CORRECT			CORRECT		
2.5	Are the standards included in technical description?	Specifications of the materials, design temperature/pressure		X	
2.6	Does the plant design comply with substances and operating conditions?	<p>Materials are resistant against substances</p> <p>Normal operation range is within the technical design</p>		X	
2.7	Are piping and instrumentation (P+I) drawings available?	Showing devices, mass flow, contents, instrumentation			X
2.8	Are documents about the classification of instrumentation available?	Showing process to compare risk and quality of instrumentation			X

No.	REVIEWED ITEM	EXAMPLE	EVALUATION		
			Yes	Limited	No
	SCL 2 acceptable?			X	



EVALUATION of SCL 2-Summary

Notes:
 Descriptions are insufficient



No.	REVIEWED ITEM	EXAMPLE	EVALUATION		
			Yes	Limited	No
3. SCL dangerous substance					
COMPLETE			COMPLETE		
3. 1	Is the inventory of hazardous substances which are present under normal conditions provided?	CAS number1, chemical name, quantity, state	X		
3.2	Is the maximum quantity or production of hazardous substances which are present under accidental conditions provided?	CAS number1, chemical name, quantity, state, production rate	X		
3.3	Is the indication of the hazards, both immediate and delayed from man/population and the environment provided/highlighted ?	Flammability, explosiveness, toxicity, bioaccumulation, water risk	X		
CORRECT			CORRECT		
3.4	Are the Material Safety Data Sheet (MSDS) for al hazardous substances and mixtures available?	Manufactured, used, stored	X		
3.5	Does the Material Safety Data Sheet (MSDS) contain physical, chemical and toxicological characteristics?	<ul style="list-style-type: none"> •Chemical/IUPAC name, CAS number[1], EC number and/or Index number according the CLP Regulation •Physical and chemical characteristics (e.g. physical state, melting point, freezing point, boiling point, flash point, flammability, auto-ignition temperature, solubility, decomposition temperature) •Toxicological characteristics (e.g. acute toxicity, skin corrosion, mutagenicity, carcinogenicity, reproductive toxicity, specific organs toxicity, aspiration hazard) •Environmental toxicity characteristics (e.g. environmental toxicity, persistence and degradability, bioaccumulative potential, mobility in soil) <p>[1] Only CAS number required by the Directive, for some of the substances there could be various CAS numbers.</p>	X		

No.	REVIEWED ITEM	EXAMPLE	EVALUATION		
			Yes	Limited	No
CREDIBLE			CREDIBLE		
3.6	Are the appropriate endpoints for toxic substances for human beings and environment according their classification given?	<ul style="list-style-type: none"> •Acute Exposure Guideline Levels (AEGs) •Emergency Response Planning Guidelines (ERPG) •Immediately Dangerous to Life and Health (IDLH) values/concentrations •Threshold Limit Value (TLV) •Lethal Concentration 50 (LC50,) – is the concentration of a chemical which kills 50%of a sample population •Effective Concentration 50 (EC50) is the concentration of a chemical which doesn't kills but shows other defined effects on 50% of a sample population •Water risk index (could be calculated by "H" sentences of GHS) 		X	
3.7	Are the relevant data to calculate physical effects and chemical reactions provided?	Vapour pressure, vapour density, relative density, heat of combustion, range of explosibility, potential exothermic reactions, calorimetric data, sensitivity on mixing with other chemicals/ingredients/catalysts, composition of combustion gas	X		

No.	REVIEWED ITEM	EXAMPLE	EVALUATION		
			Yes	Limited	No
	SCL 3 acceptable?		X		
EVALUATION of SCL 3-Summary					
<p><u>Notes:</u></p> <p><u>Croatian legislations is now transposing REACH Directive</u></p>					

No.	REVIEWED ITEM	EXAMPLE	EVALUATION		
			Yes	Limited	No
4. SCL identification of hazards, risk assessment and preventive measures					
COMPLETE			COMPLETE		
4.1	Is the adopted approach for the applied risk analysis described?	Definition of the different categories of frequency Reference to data bases and/or generic data Models for calculation and representation of the consequences Values (end points) for accidental loads (explosion loads, heat radiation, toxicity, etc.)	X		
4.2	Does the risk analysis (RA) cover the entire facility?	<ul style="list-style-type: none"> •The entire site or on a specific part of the plant, or on hazards associated with a certain operations •Risks to human beings, assets and the environment •Considering external impacts (landslide, flooding, earthquake) •Which area/activity is the most hazardous and how is this considered 	X		
4.3	Are the accidental scenarios described, including the criteria for the selection ?	<ul style="list-style-type: none"> •The selection of major accidental scenarios shall include: •Major accidents identified in the Risk Analysis •Accidental events that appear in the Risk Analysis without being identified as major accidents, as long as they represent separate challenges to the emergency preparedness •Events that have been experienced in comparable activities •Acute pollution •Temporary risk increase, e.g. lifting/transportation activities 	X		
4.4	Is the probability of the major accident scenarios assessed?	Deterministic or probabilistic, qualitative or quantitative values	X		
4.5	Does the Safety Report (SR) contain a detailed description of the possible internal causes that might lead to an accident scenario?	Failure by humans, equipment, process control		X	
4.6	Does the Safety Report (SR) contain a detailed description of the possible external causes that might lead to an accident scenario?	Critical wind speed, lightning, high tide	X		
4.7	Are the anticipated consequences of a major accident described in the Safety Report (SR)?	<ul style="list-style-type: none"> •Concentration of toxic substances at next population •Heating of containments by heat radiation •Demolition of installations by pressure peaks 	X		

No.	REVIEWED ITEM	EXAMPLE	EVALUATION		
			Yes	Limited	No
4.8	Is it outlined which measures have been implemented for loss prevention of the identified major accidents?	Process control, firefighting, double-walled containments, gas detection	X		
4.9	Are the endpoints for toxic effects, heat radiation and pressure peaks described?	<ul style="list-style-type: none"> •AEGL-2, ERPG-2 etc., W/m², bar (Pa) •Acite Exposure Guieline Level, Level 2 (AEGL – 2) •Emergency Response Planning Guidelines, Level 2 (ERPG – 2) •Maximum heat radiation for persons without special clothes over a long time – 1.6 kW/m². •(other examples – e.g. API 521/ISO 23251) •0.1 bar as a pressure peak who can destroy stonework 		X	
4.10	Is the physical and chemical behavior under normal conditions of use described?	Reactivity, stability, conditions to avoid	X		
4.11	Have the potential undesired side reactions and products been identified?	Possibility of hazardous reactions, incompatible materials, compatibility matrix of the hazardous substances, hazardous decomposition products , thermal unstable substances, self-decomposition		X	
CORRECT					
4.12	Do the assumptions inside of the described scenarios fit the reality?	Parameter of scenarios compare with equipment data like flow/pressure	X		
4.13	Is the calculation of the scenario dimensions done by approved models?	Models described within national/international regulations or literature	X		
4.14	Does the probability of the major accident scenarios comply with the preventive measures?	Context between heaviness of accident and classification of preventing installation		X	
4.15	Are the choice of limitations for toxic effects, heat radiations and pressure peaks given?	If both available - why ERPG-2 instead of AEGL-2 or otherwise sensitivity of installations or humans under influence of heat radiation sensitivity of installations or humans under influence of pressure peaks		X	

No.	REVIEWED ITEM	EXAMPLE	EVALUATION		
			Yes	Limited	No
4.16	Are the assumptions for presence of possible victim understandable and reasonable (ref. to scenarios)?	Probability of presence at train/bus stations, on roads etc.			X
CREDIBLE					
4.17	Is the used applied risk analysis consistent?	Approached method is used for all identified critical installations	X		
4.18	Are the accident parameters given to calculate the scenarios by a third party?	Wind speed, released mass, diameter of burning pool, mass within a cloud of explosive material	X		
SCL 4 acceptable?				X	
EVALUATION of SCL 4-Summary					
<p>Notes:</p> <p>4.14 L Criteria for major accidents is missing in our legislation, but it will be done</p> <p>4.15 L There's only a partial explanation for the overpressure</p> <p>4.16 N It will be done by county in EEP</p>					

No.	REVIEWED ITEM	EXAMPLE	EVALUATION		
			Yes	Limited	No
5. SCL limitation of consequences and mitigation					
COMPLETE			COMPLETE		
5.1	Is the description of the equipment in the plant to limit the consequences of major accidents provided?	<ul style="list-style-type: none"> •Devices for limiting the size of accidental releases (scrubbing systems, water spray or water curtain, emergency flare systems, etc.) •Vapor screens, emergency catchpots or collection vessels, emergency shut-off valves •Automatic shut down systems •Emergency venting including explosion panels •Inerting systems •Equipment for removal of contaminated soil and other material •Booms and skimmers for spillages to water •Temporary storage arrangements e.g. portable storage tanks, for the contaminated material 		X	
5.2	Are the organization, responsibilities and procedures for emergency response described?	<ul style="list-style-type: none"> •Activation of warnings and alarms for site personnel, external authorities, neighboring installations, and where necessary for the public •Identification of rescue routes, escape routes, emergency refuges, sheltered buildings, muster points and control centers •Provision for shut-off of processes, utilities and plants with the potential to aggravate the consequences 	X		
5.3	Is the plan for training and information for personal and emergency response crews provided ?	Evacuation exercises, first firefighting training	X		
5.4	Is the external equipment to limit the consequences of major accidents described?	Equipment of external firefighters		X	
5.5	Is the activation of external emergency response and coordination with internal response described?	<ul style="list-style-type: none"> •Mutual aid agreements with neighboring operators and mobilization of external resources •Resources available on-site or by agreement (i.e. technical, organizational, informational, first aid, specialized medical services, etc.) 	X		

5.6	Does the equipment of emergency response crews compare with potential hazards?	<ul style="list-style-type: none"> •Alcohol-resistant firefighting foam if needed •Water shields against dispersion of gas clouds or heat radiation •Flow rate and availability of water for firefighting 	X		
CREDIBLE			CREDIBLE		
5.7	Has the identification of installations which need protection or rescue intervention been done?	<ul style="list-style-type: none"> •Cooling of installations against heat radiation •Plans for evacuation of buildings 	X		
5.8	Are the elements necessary for drawing up the internal emergency plan contained in questions under ("Complete) provided?	There should be a summary of the Items under "complete", which is part of the Safety report, or the operator has to have a proof that he has supplied the authorities with such an information		X	
SCL 5 acceptable?				X	
EVALUATION of SCL 5-Summary					
<p><u>Notes:</u></p> <p>More detailed description is expected</p>					

No.	REVIEWED ITEM	EXAMPLE	EVALUATION		
			Yes	Limited	No
6. SCL Major Accident Prevention Policy (MAPP) and Safety Management System (SMS)					
6.1 SCL Major Accident Prevention Policy (MAPP)					
COMPLETE			COMPLETE		
6.1.1	Does the MAPP exist as a written document?	The MAPP should be a written document. It should be complete and proportionate to the major accident hazards	X		
CORRECT			CORRECT		
6.1.2	Does the senior management show commitment to the MAPP, e.g. through signature?	The MAPP should be signed by the senior management in order to guarantee that it will be implemented throughout the establishment.	X		
CREDIBLE			CREDIBLE		
6.1.3	Has the MAPP been communicated to the workforce?	In order to guarantee the implementation of the MAPP and the commitment of the workforce onsite, the MAPP should be communicated to the employees, subcontractors and any third party, undertaking activities on the site. This should be documented in an adequate way. The credibility of this documentation should be validated through e.g. interviews with the people on the site.	X		
6.1.4	Is the MAPP communicated to contractors and third parties undertaking activities on site?		X		
6.2 Elements of SMS					
COMPLETE			COMPLETE		
6.2.1	Is the organization of the facility documented the process safety related units roles and responsibilities clearly identified?	There should be a complete documentation which clearly links the process safety (major accident hazards) to the roles and responsibilities of the personnel on all levels.	X		
6.2.2	Have processes for identifying and monitoring the process safety requirements on personnel and their roles and responsibilities been developed?	There should be working procedures which completely describe how are safety requirements identified and monitored and how the corresponding roles and responsibilities distributed.	X		


No.	REVIEWED ITEM	EXAMPLE	EVALUATION		
			Yes	Limited	No
6.2.3 (6.3.1)	Have processes for the identification of hazards and assessment of their risks been defined?	In order to have a fit and proper risk assessment procedure you have to have a complete set of processes for hazard identification and assessment of their risks. This should include definition of the scope of application, people responsible for initiating and carrying out the risk assessment, frequency of execution, follow-up activities, etc.	X		
6.2.4 (6.3.2)	Have processes been defined for the communication of the results from hazard identification and risk assessment?	In order to be able to take into account the risk assessment in the management system, there must be procedures that ensure complete incorporation of the results of the risk assessment in the management of change, maintenance, operation, purchasing, etc. processes. The procedures should involve the management at all levels in the establishment.	X		
6.2.5 (6.5.6)	Do processes exist for addressing changes in documents as a result of changes?	The management of change procedures should ensure that planned and implemented changes are fully taken into account in the complete range of management, technical and administrative documents, such as operating procedures, plans and drawings, telephone lists, safety report, SDSs, etc.	X		
6.2.6 (6.6.1)	Do processes exist for developing internal emergency plans?	The internal emergency plans have to be developed within a procedure that completely takes into account the major accident scenarios, the responsibilities of the personnel, as defined by the MAPP and the SMS, the management of change procedures, the risk assessment results, etc.	X		
6.2.7 (6.6.2)	Do processes / procedures exist for training / drills related to the internal emergency plan?	The procedures for emergency drills and testing of the internal emergency plan should be complete and with defined frequency, scope, responsibilities, involved persons, functions. They should be reviewed and the results should be used when updating the emergency plan and the MAPP/SMS.		X	
6.2.8 (6.7.1)	Are there complete processes and procedures in place for monitoring compliance with defined requirements?	The processes and procedures for monitoring should completely define the reporting formats (regular reporting/log books/journals, etc.), procedures (alarm monitoring by supervisors, work discipline monitoring, etc.), tools (Checklists of regular (shift / daily / weekly) and control measures ("walk round" visits by management).	X		
6.2.9 (6.7.3)	Does an accident reporting mechanism exist?	The establishment should have a procedure for accident (and near miss) reporting, which should be complete and define the reporting formats and practices, incl. protection of reporting employees, investigation procedures, assessment of the reports, communication and follow-up.	X		
6.2.10 (6.8.1)	Is a process defined for regular audits?	There should be a procedure for auditing which would completely define the kind of audits performed (internal and/or external), the frequency for their execution, the responsibilities and the persons involved.	X		

No.	REVIEWED ITEM	EXAMPLE	EVALUATION		
			Yes	Limited	No
6.2.11 (6.8.4)	How does senior management review the MAPP and the SMS?	The system for review and update of the MAPP and the SMS should completely define the process of reviewing, the frequency of the review, other circumstances that would trigger a review, involvement of the personnel on all levels, the communication to other actors and follow-up.	X		
CORRECT For all questions in the CORRECT section, the inspector should be able to answer with Yes or No			CORRECT		
6.2.12 (6.2.3)	Are the qualifications and training requirements for all process safety related activities defined and documented?	In the Safety report there should be a description of all safety related activities (Annex II). For all such activities there should be a training programme that guarantees a certain level of qualification of the personnel involved. These persons should also receive regular refresher training and additional training when changes are implemented.	X		
6.2.13 (6.2.4)	Is a training programme for attaining and maintaining competence and skills related to process safety developed and executed?		X		
6.2.14 (6.3.3)	Have processes and procedures been adopted to systematically eliminate hazards and mitigate risks?	There should be written procedure(s) for these aspects of the SMS. They should identify the issues of concerne, personnel responsible on all levels, tools and documents.	X		
6.2.15 (6.4.1)	Have processes and procedures been established to define "normal operation" - (operating envelope)?	There should be written procedure(s) for these aspects of the SMS. They should identify the issues of concerne, personnel responsible on all levels, tools and documents.	X		
6.2.16 (6.4.2)	Are processes and procedures established to report deviations from "normal operation"?	There should be written procedure(s) for these aspects of the SMS. They should identify the issues of concerne, personnel responsible on all levels, tools and documents.	X		
6.2.17 (6.4.3)	Do processes and procedures exist for carrying out maintenance, repair and inspection activities?	There should be written procedure(s) for these aspects of the SMS. They should identify the issues of concerne, personnel responsible on all levels, tools and documents.	X		
6.2.18 (6.4.4)	Does a "Permit to Work" system exist?	There should be a written procedure describing how the "Permit to Work" system is implemented.	X		

No.	REVIEWED ITEM	EXAMPLE	EVALUATION		
			Yes	Limited	No
6.2.19 (6.5.2)	Does a process exist for the "MoC"?	There should be a written procedure for the management of change aspects of the SMS.	X		
6.2.20 (6.5.3)	Are responsibilities for initiating, approving permitting and approving a change defined?	It should be within the procedure for the management of change and face the aspects detailed in the question.	X		
6.2.21 (6.5.5)	Do processes exist for addressing training and communication as a result of change?	It should be within the procedure for the management of change and face the aspects detailed in the question. It should be complementary and not contradictory to the training procedures.	X		
6.2.22 (6.6.3)	Do processes / procedures exist for communicating the internal emergency plan to contractors / third parties on site?	There must be a procedure that outlines the communicating process of the internal emergency plan to workers/third parties/contractors. It should clarify the information disseminated, the training required, how is the training verified/followed up	X		
6.2.23 (6.6.4)	Do processes / procedures exist for communicating the internal emergency plan to offsite emergency responders?	There must be a procedure that outlines who is responsible for communicating the internal emergency plan to offsite emergency responders, how often this should be done and when the information has to be updated. Additional issues that have to be clarified within are the communication channels used and cooperation in case of an accident	X		
6.2.24 (6.7.2)	Are processes / procedures in place to deal with deficiencies identified by monitoring activities (including closing out)?	There should be a follow-up procedure for deficiencies identified during monitoring activities. It has to clearly indicate persons responsible, competencies and follow-up procedures, up to discontinuing the operation of an installation or parts thereof.	X		
6.2.25 (6.7.5)	Is there an internal communication / reporting system to allow employees to communicate about process safety deficiencies or improvements?	Employees should be able to communicate their opinions and findings on the safety of the installation they work in. this should be done in a systematic way, therefore a procedure must exist.	X		

No.	REVIEWED ITEM	EXAMPLE	EVALUATION		
			Yes	Limited	No
CREDIBLE					
6.2.26 (6.3.1)	What are the criteria for carrying out a risk assessment	The MAPP and the SMS should adequately and credibly demonstrate that a systematic and consistent approach is implemented, based on a sound scientific and technical principles, which identifies areas that represent a major accident hazard, such as e.g. HAZOP, HAZID, etc.	X		
6.2.27 (6.4.4)	For which activities does a "Permit to Work" system exist?	The MAPP and the SMS should credibly demonstrate that for activities that could influence the risk of major accidents (e.g. hot works, electrical works, demolition works, etc.) a work permit is required that takes into account the hazards and risks entailed.	X		
6.2.28 (6.5.1)	Is a "change" clearly defined within the management system and is a "safety relevant change" clearly defined in the SMS?	The procedures for management of change should have adequate definitions for "Change" and "Safety relevant change". These definitions should credibly demonstrate that all safety related major changes undergo a process of evaluation and adoption in order to control risks of major accidents.		X	
6.2.29 (6.5.4)	Does the MoC process link to the hazard Identification and risk assessment processes?	The MoC procedures should credibly demonstrate that for the changes foreseen proper hazard identification and risk assessment are performed		X	
6.2.30 (6.7.4)	Do accident reports feed back into risk assessments?	There should be a credible proof that the SMS requires that accident and near misses reports are taken into account when performing or reviewing the risk assessment of the establishment.	X		
6.2.31 (6.7.6)	Are Performance Indicator Data collected on activities-Leading indicators, and outcomes-Lagging indicators?	The performance indicator data have to be adequate to the activities onsite, the major accidents hazards and the SMS. All the relevant processes and responsibilities should be credibly clarified in the MAPP and the SMS.	X		
6.2.32 (6.8.2)	How are the results from audits followed up?	The MAPP and the SMS should credibly demonstrate that relevant and adequate procedures for reporting, feedback and follow-up of the audits are introduced and that there is credible link to the other processes in the SMS, such as for instance MoC, Risk assessment, communication and training, etc.	X		
6.2.33 (6.8.3)	How are Performance Indicator Data; •Collected •used?	Performance indicator data should be collected, processed and used in a consistent and systematic way that allows operators to identify deficiencies in the MAPP and SMS and to ultimately increase the safety level. The MAPP and the procedures in the SMS should demonstrate that this requirement is met with credible and relevant documents or procedures.	X		

No.	REVIEWED ITEM	EXAMPLE	EVALUATION		
			Yes	Limited	No
	SCL 6 acceptable?			X	
EVALUATION of SCL 6-Summary					
<p><u>Notes:</u></p> <p>6.2.28 L Criteria for significant change will be made</p>					



Thank You for Your attention