





# BEST PRACTICE GUIDELINES ON SUBCONTRACTING OF CHEMICAL ROAD TRANSPORT

Covering Technical, Behavioural and Organizational Aspects

| Document Number            | Original Issue  | Re-Issue Date                                    |  |  |  |  |
|----------------------------|---|--|--|--|--|--|
| BBS – 003                  | 1 December 2013   | 1 April 2016                                     |  |  |  |  |
| <b>Revision Number</b>     | Prepared/Reviewed By  | Ownership  |  |  |  |  |
| 02                         | Gulf SQAS Committee   | Alan J Izzard,<br>SQAS Program Director,<br>GPCA |  |  |  |  |
| Approval                   | Signatures:   |  |  |  |  |  |
| GPCA Board of<br>Directors | On Behalf of GPCA Board -<br>Dr. Abdulwahab Al-Sadoun,<br>Secretary General, GPCA |  |  |  |  |  |





The information, specification, methods and recommendations herein are presented in good faith, are believed to be accurate and reliable, but may well be incomplete and/ or not applicable to all conditions or situations that may exist or occur. No representation, guarantee or warranty is made as to accuracy, reliability or completeness of said information, specifications, methods and recommendations or that the application or use of any of the same will avoid hazards, accidents, loss, damage to property or injury to persons of any kind to persons or property or that the same will not infringe patents of others or give desired results. Readers are cautioned to satisfy themselves as to the suitability of said information, specifications, methods and recommendations for the purposes intended prior to use.

Wherever the Guidelines refer to a specific assessment system, e.g. Gulf SQAS, it is understood that Main Haulier's may, even if this is not explicitly mentioned, also choose to rely on equivalent assessment schemes or to set up and monitor individual criteria themselves. Nothing in the Guidelines shall be construed as restricting the Main Haulier's ability to adopt such assessment criteria when entering into an agreement with its subcontractors or as a limitation to the quality and variety of services offered by them to the shippers. The Guidelines do not contain any restrictions on pricing or terms and conditions."





# Table of Contents

|  | Tabl | e of | Conte | ents |
|--|------|------|-------|------|
|--|------|------|-------|------|

| 1. | Introduction  | 3  |
|----|---|----|
| 2. | Scope and Objectives  | 4  |
| З. | Selection Process of Subcontractors                             | 4  |
| 4. | Criteria for Subcontracting                                     |    |
|    | 4.1 Company Policy  |    |
|    | 4.2 Compliance with Regulations                                 |    |
|    | 4.3 Equipment and Operations                                    | 6  |
|    | 4.4 Performance Monitoring and Auditing                         |    |
|    | 4.5 Levels of Subcontracting                                    | 7  |
|    | 4.6 Insurance Cover   |    |
|    | 4.7 Reporting   |    |
|    | 4.8 Financial Reliability                                       | 8  |
|    | 4.9 Confidentiality   |    |
|    | 4.10 Security   |    |
| 5. | Definitions   | 9  |
|    | 5.1 General Training  |    |
|    | 5.2 Driver Training   |    |
| 6. | Frequency of Training   | 14 |
| 7. | Trainer Qualification   | 15 |
| 8. | Observation of implementation of a BBS program                  | 17 |
|    | 8.1 Spot Checks   |    |
|    | 8.2 Technical Support – Telematics, CANBus-Readout, Ebs-Readout |    |
|    | 8.3 Checkpoint System   |    |
| 9. | Gulf SQAS   | 20 |
|    | . BBS Contractual Agreements                                    |    |
|    | . Driver Spot Checks  |    |
| 12 | . Appendices  | 21 |
|    | Appendix A - Training Agenda (Table)                            |    |
|    | Appendix B - Driver Spot Check Form & Implementation            |    |

Appendix C - Implementation template/ Gap Analysis





#### 1.0 INTRODUCTION

Both the chemical industry and its partners in the transport industry have great concern for all aspects of safety. The chemical industry considers safe transportation of its products an integral part of the Responsible Care initiative. Continuous efforts to improve road transport safety are therefore part of the overall aim to improve safety performance of both the chemical industry and the transport industry.

The introduction in Europe of the Cefic Safety and Quality Assessment System (SQAS) in 1995 improved the safety performance of chemical transport operations and in 2014 GPCA has introduced Gulf Sustainability and Quality Assessment System (Gulf SQAS), based on the European SQAS but have chosen to revise the title to account for the broader scope coverage of the program, in addition to adapting the content for the GCC region.

Due to the increases in transport volume and additional environmental factors, the demands on drivers of heavy goods vehicles are now much more complex and challenging than in the past. In the short to medium term, substitution of road transport on a significant scale by other modes is not envisaged.

In order to provide stimulus for further reducing the number of road transport accidents during chemical transportations, GPCA is taking the initiative of promoting the wider implementation of the principles of Behaviour Based Safety (BBS) in the safe driving of road freight vehicles.

A number of individual transport companies have already developed management systems and training programs with clear links to the philosophy of BBS. In order to come to a more standardized and consistent approach across both industries with regard to BBS, an Industry Group with representatives from chemical and transport companies, carried out a review of the existing systems and programs already existing and used by transport companies and training institutes in Europe.

This resulted in the present Guidelines, that provide a framework based on the practices established during this review and which have been adopted by GPCA with the agreement of Cefic.

These Guidelines are intended to give a clear and concise outline of how to improve a company's road transport safety performance through BBS, while also demonstrating that safety and economic interests go hand in hand for all parties involved.





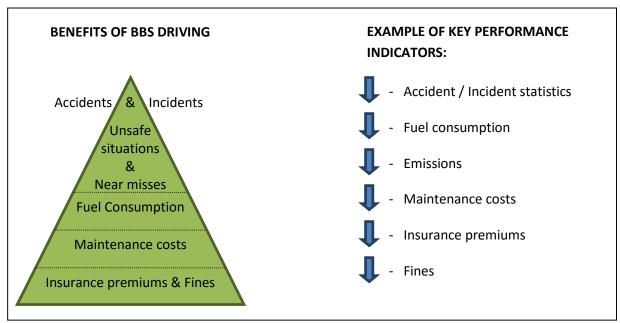
#### 2.0 SCOPE & OBJECTIVES

BBS is a program that aims at increasing safety during road freight transport by positively influencing the behaviour of drivers through observation, coaching and communication.

The BBS program targets all GCC chemical transport companies. It is not intended to be a one-off exercise, but it should rather become a continuous effort by every individual transport company.

It is expected that this program will not only improve safety performance but will also have a positive effect on fuel consumption and other related costs such as maintenance costs and insurance premiums.

Ultimately it will improve the total cost-effectiveness of the transport companies. The results of a pilot project at a Dutch transport company showed a decrease in fuel consumption of 4 to 8%, a decrease in accidents of more than 40% and a total net saving of 1000 Euro per driver per year.



#01 – Benefits and Key Performances





#### 3.0 PROCESS

The process for implementing BBS should reside in the carrier's organization as an important element of the continuous improvement program. It should include the following steps:

- The company management develops a BBS implementation plan and training program based on the principles described in these guidelines
- BBS trainers are recruited (internally or externally e.g. from a training institute) and obtain training in accordance with the principles described in the present Guidelines. Trainers could be qualified as a BBS trainer by an external body
- It is vitally important that the trainers are seen as experienced, capable and able to impart knowledge to others in a professional manner
- BBS trainers provide individual training to drivers. BBS trainers produce an assessment report for each trained driver, which is kept on file and/or may be incorporated into a database
- The drivers obtain a copy of their assessment report and may consult the filing system for their individual records
- The company keeps records of performance indicators such as incident/accident statistics, fuel consumption, maintenance costs, insurance premiums and fines
- Regular analysis of the results of the BBS program by senior management will provide a useful tool in deciding on further steps towards continuous improvement
- Checking of implementation of BBS during the Gulf-SQAS assessment of the Transport Company
- On-going observation of the implementation by e.g. technical support systems (telematics), intermediate checks or checkpoints

BBS safe driving should also be seen as an integral element of the "Best Practice Guidelines for Safe Loading and Unloading of Road Freight vehicles, covering technical, behavioural and organizational aspects".

All of the above guidelines can be downloaded at <u>www.gulfsqas.com</u>

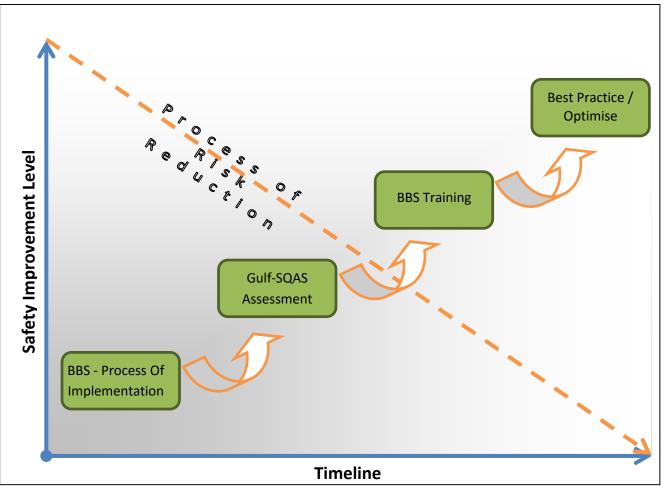




#### 4.0 RISK REDUCTION MODEL

Due to increases in work pressure, and general behavioural changes, the demands on drivers are now much more complex and pressing than in the past. In the short to medium term, substitution of road transport on a significant scale by other modes is not envisaged.

These guidelines are intended to give a clear and concise outline of how to positively-influence a company's road transport safety performance, assist with reducing all associated operating risks to a minimum.



#02 – Safety Improvement & Risk Reduction



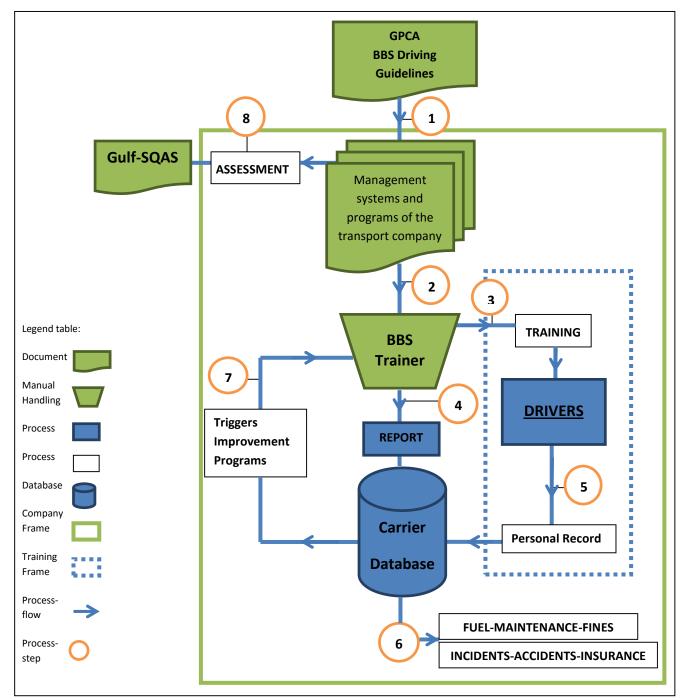


#### 5.0 MANAGEMENT

#### 5.1 POLICY

Successful implementation of BBS requires a top-down management approach. The company's policy must not only reflect the importance of BBS but also the commitment of the Management.

BBS must be fully integrated in the carrier's organization and management systems. It needs to become an integral part of the company's culture and be one of the key drivers for continuous performance improvement through the implementation of key performance indicators.



#03 – Management Paradigm

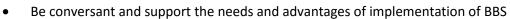




#### 5.2 **RESPONSIBILITIES**

#### 5.2.1 MANAGEMENT

Management should:



• Prepare a document describing the company's planned approach towards BBS driver training including all components'

8

- Communicate this plan to all personnel involved and review it (at least annually)
- Develop a BBS training program

1

6

• Initiate, implement and provide on-going support for the BBS program

7

- Define roles, deliver resources, resolve issues and remove barriers for successful implementation
- Set targets, monitor status and results
- Keep records of related performance indicators
- Manage the improvement process based on BBS data analysis
- Avoid instructions and management behaviour that conflict with BBS principles

#### 5.2.2 DISPATCHERS/ PLANNERS

Dispatchers/ planners should:

- Understand and support the BBS program and support the driver trainers in the execution phase
- Avoid planning and instructions that conflict with BBS principles (e.g. unrealistic delivery times)

#### 5.2.3 TRAINERS

Trainers should:

- 3 4
- Believe and understand so that they are able to train personnel convincingly
- Execute the BBS training

2

- Observe and interactively communicate the findings with the driver
- Collect data and report results and inform management of proposed improvements

Identify and report any issues that need to be followed up by driver or management (confidentiality of private information to be guaranteed). The qualification of the trainer is essential for the success of the program. See section 8.





#### 5.2.4 DRIVERS

Drivers should:

5

- Understand the purpose of the BBS program and be committed to participate
- Discuss performance improvements with the trainer and help in finding solutions
- Implement preventative changes and improvements as a result of BBS analysis

#### 5.3 TASKS

#### 5.3.1 TRAINING

Training is the main task of the BBS program. Details are described in chapter 6

#### 5.3.2 RECORD KEEPING

Driver records, along with the individual training observations and checklists along with an attestation, should be collated by the carrier into an efficient storage and retrieval system (database and/ or filing system). Drivers receive a BBS training attestation and have the possibility of obtaining a copy of their personal record as a reminder/ learning tool for continuous improvement.

Other key performance indicators such as incidents/ accidents statistics, fuel consumption, maintenance costs, insurance premiums and fines should be identified, monitored and recorded to demonstrate and follow up the results of the program.

#### 5.3.3 ANALYSIS

Management should use the collected data to identify structural trends and issues.

#### 5.3.4 OBSERVATION OF IMPLEMENTATION OF A BBS PROGRAM

A critical aspect of the success in a BBS program is the additional follow-up on the drivers' behaviour after their training. Details are to be found in chapter 10.

#### 5.3.5 FOLLOW UP / CORRECTIVE ACTIONS

Results of analyses should trigger corrective actions to processes, safety programs and improvement of employee performance. The effect of implemented corrective actions should be monitored through the key performance indicators.





#### 5.4 SUBCONTRACTING – INTEGRATED PARTNERS

There should be a system in place that guarantees that BBS is cascaded to all sub contracted partners (non-fully integrated and fully integrated), this is closely allied to the GPCA guideline on Subcontracting and the company's Gulf-SQAS assessment report which is verified by the Gulf-SQAS Assessor. For fully integrated subcontractors, the transport company should directly manage the BBS program, for the non-integrated subcontractors the transport company should have a surveillance/assessment role.

#### 6.0 TRAINING PROGRAM

#### 6.1 GENERAL TRAINING

The general training is dedicated to transport management and planners. Its purpose is to inform and engage personnel about the BBS program – to help them believe in and understand the program. To generate maximum benefit for the carrier, it is important that management and operational staff fully understand how their role and behaviour may directly affect the behaviour of the driver (e.g. by avoiding extended working hours, rush orders, delayed/late instructions, unrealistic delivery times etc.). This training can be provided in the form of a guidance document.

The general training can also be used for cascading the process to subcontracted partners.

#### 6.2 DRIVER TRAINING

#### 6.2.1 FORMAT

The benefits are derived from the personal experience of the individual involved by a totally interactive program. It is carried out on a one-to-one basis between the trainer and a driver.

The trainer should observe the driver while driving and manoeuvring on the road. The purpose is to assess individual strengths and have in place driving improvements that address behavioural driving skills. As this differs from individual to individual, the items listed in this document should be considered as a guideline only, which may not need to be assessed/checked in the entirety at each session.

Behaviour that may lead to an unsafe situation or condition should be corrected by interactive communication between the trainer and the driver.

Trainers should have the skill to convince the driver of the unsafe situation, and show how to prevent this occurrence. Therefore, technically supported training methods such as simulator training cannot replace face to face BBS training. Simulator training could play an integral role for follow-up checks and shorter term intermediate checks.

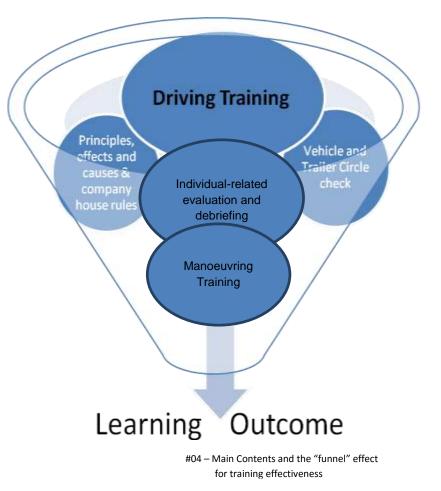




#### 6.2.2 CHARACTERISTICS

A successful Behaviour Based Safety training program needs to focus on driving. The trainer should take the driver onto the road and check/observe a number of key performance criteria including:

- Concentration, observation and anticipation
- Driving skills as applied to all aspects of driving
- Vehicle control and observation techniques
- The principles of accident avoidance
- Spatial awareness



Throughout the on-the-road assessment, the trainer should positively influence the behaviour of the driver by observing and providing clear feedback on observations noted.

Preferably the route should be familiar to both the driver and trainer. It is recommended that a standard delivery route be taken so that the driver is as relaxed as possible. This approach is more likely to reveal how the driver would perform when driving alone.

#### 6.2.3 DRIVER PROFILE

Before the start of the training a complete profile of the driver should be made available to the trainer. This driver profile should contain details of the following:

- Age
- Years of service
- Driving licence
- Previous experience
- Driving related fines and convictions
- Safety record accidents/incidents
- Previous BBS training record including risk profile and agreed action plan





#### 6.2.4 TRAINING AGENDA

Learning Outcome:

The driver has to be distinctly aware that good concentration, observation and anticipation maintain a safety based driving behaviour. The driver also has to demonstrate that his driving skills are adequate as they apply to all aspects of driving. The driver should also apply the principles of accident avoidance.

Training duration:

The training should be comprehensive, typically lasting 1 full working day i.e. 8 hours.

**<u>See Appendix A</u>** For the training description of requirements and addressed methods.



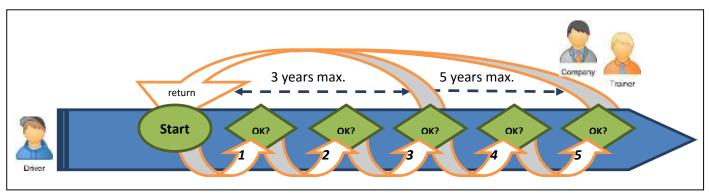


#### 7.0 FREQUENCY OF TRAINING

It is necessary to respond quickly to incorrect BBS behaviour. The frequency may vary between once every 1 to 5 years depending on the annual performance review of each individual driver.

It is proposed that companies start with a time frame of 3 years for the BBS Safe Driving of Vehicles program. If serious behaviour based shortcomings are identified, it is recommended to increase the frequency to address the problem(s). If no behavioural shortcomings are identified (identified during the annual analysis), it is recommended to move towards a maximum frequency of full 5 years.

It should be noted that the first training has the highest impact and will be of most benefit to the driver. It is recommended that the initial training exploits the maximum time frame for each learning outcome. The trainee will benefit from the full potential of a face to face training day.



#05 – Frequency Scheme





#### 8.0 TRAINER QUALIFICATION

A successful program depends heavily on the skills of the trainer. The selection of the trainer is therefore critical. Trainers can be recruited internally or externally (e.g. from a training institute).

Trainers should be fully conversant with the content, objectives and requirements of the Transport Company's BBS implementation plan and driver training program within the company, based on the principles set out in these Guidelines.

The approved trainers should be competent in the required training skills, imparting training to trainees, also a sound knowledge of the most recent regulations and guidelines. The trainer should know how to apply the educational engineering skills. For more details, please see the table below.

Desired knowledge, skills and competences of the trainer which are to be maintained as current:

| Knowledge – Skills – Competences   | Evaluation Process of trainers   |
|--|--|
| <ul> <li>Regulations and Guidelines</li> <li>National transport regulations and legislation</li> <li>International transport regulations and legislation</li> <li>BBS concept and Gulf-SQAS system</li> <li>Initiatives, programs and references</li> </ul>  | The trainer should have an overview<br>and know the regulations and<br>guidelines.<br>The trainer should know how to apply<br>regulations and guidelines and<br>evaluate inappropriate behaviours, as<br>well as new initiatives and programs. |
| <ul> <li>Competence of the training and training skills</li> <li>Teaching Skills and personal relationship</li> <li>Psychological and social theories</li> <li>Working and learning culture and, learning conditions</li> <li>Disorders and relationship problems</li> <li>Performance review, assurance and assessment</li> <li>Reporting skills</li> </ul> | The trainer should have good teaching<br>and training skills.<br>The trainer should know how to apply<br>the BBS training.<br>The trainer can evaluate findings and<br>instruct on necessary improvements.                                     |
| <ul> <li>Educational engineering</li> <li>Internal and external factors</li> <li>Learning objectives</li> <li>Learning processes and progresses</li> <li>Principles of educational planning and scheduling</li> <li>Learning materials, media and methods</li> </ul>   | The trainer should know how to apply<br>the educational engineering skills.<br>The trainer should evaluate and<br>choose suitable principles and<br>methods.   |





As part of the selection procedure, the trainers must be able to prove their knowledge of both the subject material and teaching methods. With respect to the practical part of the training, trainers must provide certification of experience as professional drivers or similar driving experience, such as that of driving instructors for heavy vehicles.

As regards the acceptance of the trainees and the support of the training manager the trainers should have 5 years' experience in national or international transport operational roles concerning the work of the driver to be trained.

They should have a good reputation as well as an excellent safety record and be well respected amongst peers. They should provide employer's reference of excellent interpersonal skills and should be objective and independent.

Trainers should have a continuing educational process (keyword: lifelong learning). They should follow and personally aim to improve their training abilities, skills and quality.

With internally appointed trainers it is advisable that they have an independent position and relationship with the drivers. Training of direct colleagues should be avoided.

Based on experience within the road transport industry, it is estimated that approximately one in ten experienced drivers have the necessary communication skills, experience, technical knowledge and respect of their peers, in order to become a successful trainer.





#### 9.0 OBSERVATION OF IMPLEMENTATION OF A BBS PROGRAM

A critical aspect of the success in a BBS program is the additional follow-up on the driver's behaviour after their training (initial and follow-up). Basically, there are three potential options:

- Spot checks
- Technical supports
  - o Telematics
  - CANBus-Readout
  - o EBS-readout
- Check Point System

#### 9.1 SPOT CHECKS

"Spot checks" are essentially unannounced observations of drivers. The transport company has to define a program to conduct the observations that can be scheduled by region and time.

The first step to implement this program is the appointment of "Safety Monitors". They are experienced people who are appointed to observe the drivers. In principle, they can be the BBS trainer(s), with the following additional responsibilities:

- Spot checks (unannounced)
- Report to the LSP's Senior Management
- Follow-up of drivers with low performance

Feedback on findings should always be positively presented and communicated. It is recommended to use a check list to conduct the spot checks. The check list can be a simple list to verify compliance or a more sophisticated system using scores and weighting criteria of each aspect to be assessed (quantitative verification).

Appendix B contains an example of a check list template. The check list should be adapted to the "culture" of the company and take into account local legislation. A scoring system can be used and after the spot check, a score is assigned to the driver.

#### Note: A company should adapt this form to its own culture and local legal requirements.

The outcome of the spot checks should be discussed with the driver and the transport company management.

If a negative trend of bad results of the driver's assessments is observed, the frequency of the spot checks needs to be increased. A system to prioritize those drivers for monitoring should be developed to ensure follow-up of the drivers that require it the most.





#### 9.2 TECHNICAL SUPPORT – TELEMATICS, CANBUS-READOUT, EBS-READOUT

Technology can assist in monitoring drivers and its inclusion in a BBS program should be considered. There are many systems in the market and the evolution of this industry is very progressive.

A proven system used in the industry is Telematics/ Telemetric. There are basically two types of systems on the market.

GPS (Global Positioning System) – Telematics:

A simple affordable system offering only geo-positioning and communication tools as an option. They are also called "connected navigation systems". From these systems the following information can be obtained: -

- Position: Useful to verify if the driver is parked at the right/instructed position (e.g.)
- Direction of travel
- Routing: Location of destination and the ability to advise drivers of the planned/instructed (safe) route
- Speed monitoring

IVMS (In vehicle Monitoring System) – Telemetric:

Several scientific studies show the positive effects on road safety performance, after an IVMS device is installed in the vehicle. Installing IVMS with provision of feedback to the drivers reduces speeding, unsafe driving behaviours and improves transport operating efficiencies. This is a more expensive option than the previous one.

This system allows (in addition to information mentioned under GPS Telematics):

- Analyses and improvement of road transport planning and safety performance
- Provide regular, formal feedback to drivers
- The possibility to provide recognition for compliance and sanctions for noncompliance

Other benefits of IVMS include improved:

- Driver and vehicle utilisation
- Vehicle maintenance
- Fuel consumption
- Theft deterrent and reduced insurance premiums
- Reduction in kilometres travelled
- Route planning
- Contractor performance management and improved customer service (vehicle tracking/ delivery advice)





The following information can be obtained from the system:

- Fuel monitoring
- Driving behaviour (acceleration/ deceleration behaviour). Some systems also provide feedback from the Roll-Stability-Support (RSS) system measuring how many times the system was automatically activated
- Defensive driving reports
- Economy-based reporting
- Driver performance reports on a defined time-basis should be generated to provide feedback to the drivers
- Record driver working/ rest times similarly to a tachograph

Year to date trending graph/report of average driver behaviour scores should also be made available to respective managers on a regular (e.g. monthly or quarterly) basis for tracking of driver performance trends.

VDR (Vehicle Data Recorder/tachograph) that only records speed and time are not considered an IVMS (In Vehicle Monitoring System) system even though the newer electronic tachographs have more functionality than the older analogue versions.

#### 9.3 CHECKPOINT SYSTEM

This is a systematic check from strategic points such as terminals, truck stops, partners etc. that can be used for monitoring.

For example:

- Some terminals have camera-monitoring for the incoming shipments that can be used for feedback on equipment damages and behaviour during driving whilst on the terminal.
- Others may use infra-red communications on vehicles that download information into receiving devices.

On some dedicated places "safety monitors" can be appointed, who check vehicles and drivers based on checklists – unannounced checks.





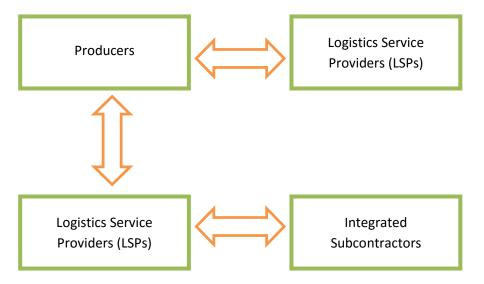
#### 10. Gulf-SQAS

The BBS concept is fully integrated into the Gulf-SQAS Core and Transport Service Questionnaires. There are several questions, based on the requirements set in this guideline.

During a Gulf-SQAS assessment, the Gulf-SQAS assessor assess the implementation status of the BBS program in the main transport company. Checks are also made to verify, that BBS programs of subcontracted companies are controlled by the main transport company. (See Section 5.4)

#### 11. BBS CONTRACTUAL AGREEMENTS – PRODUCERS / LSPs

It is recommended that the contract includes the request to develop and implement a BBS program according to the requirements specified in this guideline. Between:



#### 12. DRIVER SPOT CHECK FORM

#### SPOT CHECK FORM USAGE: See Appendix B

The form is an example of a Spot check. Here, a scoring system is used and after the spot check, a score is assigned to the driver. <u>The company should adapt this form to its own culture and local legal requirements.</u>





# Appendix A

## **TRAINING AGENDA**

#### Learning Outcome

The driver has to be distinctly aware that good concentration, observation and anticipation maintain a safety based driving behaviour. The participant also has to demonstrate that their driving skills are adequate as they apply to all aspects of driving. The driver should also apply the principles of accident avoidance.

| 1 Learning Objective/ Principles, effects and caus   | ses Timeframe  |
|--|--|
| The driver understands the purpose of the BBS pro<br>the expected improvement of the program. The p<br>the schedule of the training day and knows the cor  | participant has an insight into (up to 45 min)   |
| Contents   | Advice of Methods  |
| Principles, effects and causes Principles, effects and causes Purpose of the BBS program + Objective and scope - Safety performance - Fuel consumption - Related costs + Influencing the behaviour - Observation - Coaching - Communication Company rules Transport signs Effects of fatigue and stress Impact on driving of prescribed medicines and other drugs Maximum fuel efficiency Record keeping | <ul> <li>Lecture on accident/ incident statistics</li> <li>Conversation about experience in different areas</li> <li>Discussion about fuel consumption and emissions</li> <li>Brain-storming on maintenance costs</li> <li>Demonstration of causes of the most frequent accidents</li> </ul> |





|             | g Objective/ <b>Vehicle and trailer circle c</b><br>ipant is able to do the vehicle circle |  | <b>Timeframe</b><br>30 min |  |  |  |  |  |
|-------------|--|--|----------------------------|--|--|--|--|--|
| •           | ipant is able to do the vehicle circle<br>is the importance of a correct check-up          | •  | (up to 60 min)             |  |  |  |  |  |
| unuerstant  |  | to the transport salety.                           |                            |  |  |  |  |  |
| Contents    |  | Advice of Methods                                  |                            |  |  |  |  |  |
| Vehicle and | d trailer circle check   | - Demonstration of the c                           | overall vehicle circle     |  |  |  |  |  |
| • Ou        | tside vehicle check  | check and documentation                            | on                         |  |  |  |  |  |
| +           | General vehicle characteristics  |  |                            |  |  |  |  |  |
| +           | Tyres  | - Exercise of the overall v                        | ehicle circle check        |  |  |  |  |  |
| +           | ,<br>Tightening of wheel-nuts  |  |                            |  |  |  |  |  |
| +           | Lights   |  |                            |  |  |  |  |  |
| +           | Oil  | - When Trailer is lo                               | aded check and             |  |  |  |  |  |
| +           | Water  | demonstrate load secur                             | ing measurements.          |  |  |  |  |  |
| +           | Fire extinguisher(s)   |  |                            |  |  |  |  |  |
| +           | Dangerous Goods equipment  |  |                            |  |  |  |  |  |
| +           | Outside cleanliness/ check for   | <ul> <li>Positioning the blind spectrum</li> </ul> | ot areas                   |  |  |  |  |  |
|             | damage/ no leakages  |  |                            |  |  |  |  |  |
| • Ins       | ide vehicle check  |  |                            |  |  |  |  |  |
| +           | Visibility check   |  |                            |  |  |  |  |  |
|             | - dead-angle camera/mirror   |  |                            |  |  |  |  |  |
|             | - obstructions of the line of  |  |                            |  |  |  |  |  |
|             | sight  |  |                            |  |  |  |  |  |
| +           | Dangerous Goods equipment  |  |                            |  |  |  |  |  |
| +           | Brake operation  |  |                            |  |  |  |  |  |
| +           | Equipment specially needed for   |  |                            |  |  |  |  |  |
|             | specific type of work  |  |                            |  |  |  |  |  |
| +           | Personal protective equipment  |  |                            |  |  |  |  |  |
| +           | Transport documents  |  |                            |  |  |  |  |  |
| +           | Fuel   |  |                            |  |  |  |  |  |
| +           | Dashboard check  |  |                            |  |  |  |  |  |
| +           | Safety belt, seat and steering wheel   |  |                            |  |  |  |  |  |
| +           | Inside cleanliness   |  |                            |  |  |  |  |  |
| +           | Air conditioning   |  |                            |  |  |  |  |  |
| +           | Correct position of Seat, Mirrors,   |  |                            |  |  |  |  |  |
|             | Satellite Navigation use before  |  |                            |  |  |  |  |  |
|             | starting off   |  |                            |  |  |  |  |  |
| • Tra       | iller check  |  |                            |  |  |  |  |  |
| +           | General trailer characteristics  |  |                            |  |  |  |  |  |
| +           | Coupling/ uncoupling   |  |                            |  |  |  |  |  |
| +           | Documents  |  |                            |  |  |  |  |  |
| +           | Tyres  |  |                            |  |  |  |  |  |
| +           | Tightening of wheel-nuts   |  |                            |  |  |  |  |  |
| +           | Lights   |  |                            |  |  |  |  |  |
| +           | Air/ electrical  |  |                            |  |  |  |  |  |
| +           | Twist-locks  |  |                            |  |  |  |  |  |
| +           | Closed loading compartments (e.g.  |  |                            |  |  |  |  |  |
|             | backdoor, roof, tarpaulin, valves)   |  |                            |  |  |  |  |  |
| +           | Load securing  |  |                            |  |  |  |  |  |





| <ul> <li>3 Learning Objective/ Driver training</li> <li>The participant is able to drive the vehicle correct of accident avoidance. The participant knows ho and how to maintain a safety based driving behave</li> <li>Contents</li> <li>Driver training</li> </ul>   | w to regard the traffic rules (up to 180 min)   |
|--|---|
| <ul> <li>Manoeuvring</li> <li>Lane changes</li> <li>Crossings</li> <li>Turning</li> <li>Approaching and being passed</li> <li>Join/exit transport flows</li> <li>Behaviour on and nearby special road sections</li> <li>Road surfaces and weather conditions</li> <li>Using the gearbox, clutch and brakes</li> <li>Trailer stability</li> <li>Leaving the vehicle</li> <li>Handling of incoming phone calls, handling Sat. Nav. equipment</li> <li>Maximum speed (Could be regulated by the company)</li> <li>Tachograph</li> </ul> | <ul> <li>Attitude (polite/ aggressive)</li> <li>Concentration</li> <li>Involvement</li> <li>Awareness</li> <li>Observation skills (mirror usage)</li> <li>Hazard perception</li> <li>Vehicle control</li> <li>Positioning</li> <li>Separation distance (braking distances and safety distances)</li> <li>Speed adaption (including use of brakes, engine brake, cruise control</li> <li>Defensive driving (anticipating transport situations and other road users)</li> <li>Eco-Driving</li> <li>Seat belt (usage, adjustment)</li> <li>Handling of additional cabin equipment. (It should be noted that the use of mobile phones/ any communication equipment is not to be used whilst in transit.)</li> </ul> |

| <b>4</b> Learning Objective/ <b>Manoeuvring training</b><br>The participant is able to manoeuvre the vehic<br>principles of accident avoidance. The participan<br>maintain a safety based driving behaviour. | <b>Timeframe</b><br>60 min<br>(up to 90 min)                   |              |  |  |  |
|--|--|--------------|--|--|--|
| <b>Contents</b><br>Manoeuvring training  | Advice of Methods - Exercise on the manoeuvring of the vehicle |              |  |  |  |
| <ul> <li>Prepare to manoeuvre (positioning of the vehicle</li> <li>Special manoeuvres (loading/ unloading stations)</li> </ul>   | - Observations of behavic                                      | oural skills |  |  |  |
| <ul> <li>Reversing/ Driving backwards (with a turn and in straight line)</li> <li>Observation/ vision</li> <li>Parking of the vehicle</li> </ul>   |  |              |  |  |  |





| 5 Learning Objective/ Individual-related evaluat  | -  |
|---|--|
| The participant knows his performance and unc   | •  |
| participate and helps in finding solutions. The<br>implement preventative changes as a result of th   |  |
|   |  |
| Contents  | Advice of Methods  |
| <ul> <li>Individual related evaluation and debriefing</li> <li>Overall evaluation of the course/ day</li> <li>Verification of checklist and observations (explanation of both positive and negative remarks)</li> <li>Identification of areas for improvement and suggested action(s)</li> <li>Remarks by the trainee (feedback to the course) and signing by the trainee of the evaluation report</li> <li>Issue of final report by trainer (sent to the line manager of each trainee).</li> </ul> | <ul> <li>Conversations and Discussion on the findings</li> <li>Brain-storming on the areas and its interpretation</li> <li>Demonstration of behavioural practices</li> <li>Exercise on behavioural practices</li> <li>Instructions for areas of improvement</li> </ul> |







### FORM FOR DRIVER SPOT CHECKS

| Date:   | Reason for          | spot ch         | eck:                |                 |         |         | D       | ate o   | of last spot     | check:   | Not | te: |    |      |             |       |
|---|---------------------|-----------------|---------------------|-----------------|---------|---------|---------|---------|------------------|----------|-----|-----|----|------|-------------|-------|
|   |                     |                 |                     |                 |         |         |         |         |                  |          |     |     |    |      |             |       |
| General Observation Acciden                     | t 🛛 Damage          | 🗆 Fine          | □ Social Regulation | n 🛛 Customer re | equiren | nent    | □ Ot    | ther:   |                  |          |     |     |    |      |             |       |
|   |                     |                 |                     |                 | DRI     | VING B  | EHAV    | IOUR    |                  |          |     |     |    |      |             |       |
| 1: Does not comply with any of the criteria     | 2: Complies with le | ess than half   | the criteria        |                 |         |         |         | IN      | TIAL             |          |     |     |    |      | FINAL       |       |
| 3: Complies with more than half of the criteria | 4: Complies with a  | ll the criteria |                     |                 |         |         | ı.      | i       | -                | i        |     |     |    |      |             | 1     |
|   |                     |                 |                     |                 | 1       | 2       | 3       | 4       | Coefficient      | Total    | 1   | 2   | 3  | 4    | Coefficient | Total |
| Installation in driving seat                    |                     |                 |                     | A               |         |         |         |         |                  |          |     |     |    |      |             |       |
| Preparation for the mission                     |                     |                 |                     | В               |         |         |         |         |                  |          |     |     |    |      |             |       |
| Defensive driving                               |                     |                 |                     | С               |         |         |         |         |                  |          |     |     |    |      |             |       |
| Economic driving                                |                     |                 |                     | D               |         |         |         |         |                  |          |     |     |    |      |             |       |
| Loading   |                     |                 |                     | E               |         |         |         |         |                  |          |     |     |    |      |             |       |
| Manoeuvring                                     |                     |                 |                     | F               |         |         |         |         |                  |          |     |     |    |      |             |       |
| Unloading                                       |                     |                 |                     | G               |         |         |         |         |                  |          |     |     |    |      |             |       |
| Compliance with regulations                     |                     |                 |                     | Н               |         |         |         |         |                  |          |     |     |    |      |             |       |
| Knowledge of client requirements                |                     |                 |                     | I               |         |         |         |         |                  |          |     |     |    |      |             |       |
|   |                     |                 |                     |                 | OVE     | RALL II | MPRES   | SION    |                  |          |     |     |    |      |             | -     |
| Equipment condition and cleanliness             |                     |                 |                     | J               |         |         |         |         |                  |          |     |     |    |      |             |       |
| Presentation of driver and individual           | protection equipr   | ment            |                     | К               |         |         |         |         |                  |          |     |     |    |      |             |       |
| Politeness/ courtesy/ punctuality               |                     |                 |                     | L               |         |         |         |         |                  |          |     |     |    |      |             |       |
| Spirit of initiative                            |                     |                 |                     | М               |         |         |         |         |                  |          |     |     |    |      |             |       |
| Gestures and posture                            |                     |                 |                     | N               |         |         |         |         |                  |          |     |     |    |      |             |       |
| Professional conscience                         |                     |                 |                     | 0               |         |         |         |         |                  |          |     |     |    |      |             |       |
| INITIAL EVALUATION Comments:                    |                     |                 |                     |                 |         |         | FI      | NAL E   | /ALUATION Co     | omments: |     |     |    |      |             | -     |
|   |                     |                 |                     |                 |         |         |         |         |                  |          |     |     |    |      |             |       |
|   |                     |                 | APT:                | NO              |         | Y       | ES with | n addit | ional training [ | ] YES    | 5 🗆 |     |    |      |             |       |
|   | IN                  | STRUCTO         | R                   |                 |         |         |         |         |                  |          |     |     | DR | IVER |             |       |
| Name:   |                     |                 |                     |                 |         |         | N       | ame:    |                  |          |     |     |    |      |             |       |
| Signature:                                      |                     |                 |                     |                 |         |         |         | gnatur  | e:               |          |     |     |    |      |             |       |
| Date:   |                     |                 |                     |                 |         |         | Da      | ate:    |                  |          |     |     |    |      |             |       |

# Appendix C

| Date of last Spot                | Record the date of the last check carried out on this driver   |
|----------------------------------|--|
| Check                            |  |
| Note                             | Record the note obtained by the driver in the current check  |
| Aspects to be<br>assessed        | There are two kinds of aspects to be assessed: driving behaviour and overall impression. Every aspect has, in turn, a list of sub aspects to be assessed (installation in driving seat, preparation for the mission, etc.). Every sub aspect needs an assessment criterion that should be defined by the company; that is to say, how the sub aspect will be scored 1, 2, 3 or 4. It is highly recommended that the company documents these criteria in an instruction. It is also recommended to develop different assessment criteria for the experience drivers and the new drivers (less strict) |
| Initial and final<br>assessments | Every spot check has an initial and final assessment; both are carried out by<br>the same Safety Monitor. When the initial assessment is finished, the Safety<br>Monitor provides advice to the driver on how to improve his/her behaviour.<br>Then, a second assessment takes place. Both initial and final assessments<br>should be recorded   |
| Coefficients                     | Every sub aspect to be assessed may be multiplied by a coefficient to give the aspect more or less relevance. The use of the coefficients is optional  |
| Total                            | This column is the outcome of the multiplication between the score obtained<br>in the appraisal (1 to 4) by the coefficient  |
| Comments                         | Clarifying comments may be included, e.g. justification of the scoring or improvement actions  |
| Name, signature and dates        | It is important that both the instructor and the driver signs at the bottom of<br>the form. That means that the driver agrees with the evaluation and the<br>improvement actions   |

## Appendix C

### **IMPLEMENTATION TEMPLATE/ GAP ANALYSIS**

The implementation template/ gap analysis is a useful tool to facilitate the implementation of a new BBS program or to assess gaps in an existing BBS program. It is dedicated to the responsible management such as the Management Safety Officer, EHHS&Q Manager etc.)

|      | Logistic Service Provider Name:  |                 | Date:   |
|------|--|-----------------|---------|
| No.: | BBS topic/ question  | Response<br>y/n | Action: |
| 1.   | General – Notification – Orientation   |                 |         |
| 1.1  | Is the BBS principle understood and accepted<br>as an additional program to improve safety<br>performance? |                 |         |
| 1.2  | Is management committed to a successful implementation of BBS?   |                 |         |
| 1.3  | Does management drive and maintain a company culture in line with BBS principles?                          |                 |         |
| 1.4  | Is management informed about the BBS questions in the CEFIC Gulf-SQAS questionnaire?                       |                 |         |
| 1.5  | Is the BBS process embedded as an integral part of the companies' management system and programs?          |                 |         |
| 1.6  | Has an implementation leader been identified?  |                 |         |
| 1.7  | Have the required resources (people and financial) been estimated and assigned to BBS?                     |                 |         |
| 1.8  | Are goals and targets set and communicated in relation to the BBS program?                                 |                 |         |
| 1.9  | Does the company have a benchmark with proven results in relation to other companies?                      |                 |         |

| 2.   | Implementation   |  |
|------|--|--|
| 2.1  | Has a project implementation plan been set                                     |  |
|      | up with targets and timelines?   |  |
| 2.2  | Has a training plan been set up with   |  |
|      | individual names and dates?  |  |
| 2.3  | Has a program been implemented for the   |  |
|      | selection and qualification of appropriate                                     |  |
| 1    | trainer's? Do trainers have the necessary                                      |  |
|      | qualifications as outlined in the BBS  |  |
|      | guidelines?  |  |
| 2.4  | Does the training plan include initial training                                |  |
|      | for:   |  |
|      | a) Ancillary and administrative staff?   |  |
|      | b) All drivers?  |  |
| 2.5  | Has initial training been given to:  |  |
|      | a) Ancillary and administrative staff  |  |
|      | (e.g. on BBS principles)?  |  |
|      | b) All drivers?  |  |
|      | Has a program been implemented, that   |  |
|      | guarantees, that the BBS program is  |  |
|      | cascaded down to all sub contracted  |  |
|      | partners as defined by the BBS guidelines?                                     |  |
| 2.6  | Have critical behaviour aspects/ items been                                    |  |
| 2.7  | defined with desired performance?  |  |
| 2.7  | Does the training content cope with the  |  |
| 2.8  | framework of the BBS guidelines?<br>Has a training duration and frequency been |  |
| 2.8  | defined and do they cope with the  |  |
|      | indications outlined in the BBS guidelines?                                    |  |
| 2.9  | Do the program cope with the sustainability                                    |  |
| 2.5  | aspects of the BBS guidelines (e.g.  |  |
|      | continuous improvement, follow-up  |  |
|      | checks,)?  |  |
| 2.10 | Is a central record filing system set up to file                               |  |
|      | individual training records sheets?  |  |
| 2.11 | Do the drivers have the opportunity to add                                     |  |
| -    | critical driving behaviour issues to the                                       |  |
|      | training content?  |  |
| 2.12 | Have tools been implemented to allow   |  |
|      | analysis on trends, issues and/ or gaps?                                       |  |

| 3.  | Data collection and reporting  |  |
|-----|--|--|
| 3.1 | Does the trend, issues & gap analysis tools<br>include key performance indicators (KPIs)<br>outlined in the BBS guidelines (e.g. accidents,<br>fuel consumption etc.?)                               |  |
| 3.2 | Is structural behaviour trend & gap analyses,<br>retrieved from the central filing system, be<br>done on a regular base and communicated to<br>the management? If so, what process has<br>been used? |  |
| 3.3 | Are structural behavioural trends, issues & gaps reported to drivers?  |  |
| 3.4 | Can an individual driver look up his individual training record sheet as well as his records on KPIs?  |  |
| 3.5 | Is the overall progress/ development of BBS program reported to the involved parties? If yes, how and what is the frequency?   |  |
| 4.  | Follow-Up/ Corrective actions  |  |
| 4.1 | Is any follow-up system in place to check the implementation and improvement process (e.g. spot checks, telematics)  |  |
| 4.2 | Have corrective actions been defined? Are they based on the analyses of the central filing system?   |  |
| 4.3 | What process for corrective measurements is implemented?   |  |
| 4.4 | Is a system in place to measure the effects of corrective measurements?  |  |
| 4.5 | Are individual measurements/ actions agreed with individual drivers?   |  |
| 5.  | Overall project evaluation   |  |
| 5.1 | Are the key performance indicators showing<br>an improvement since the start of the<br>program?  |  |
| 5.2 | Do the results reflect the set targets?  |  |
| 5.3 | In case of non-success of the implementation<br>of the BBS program, have corrective actions<br>been taken? If yes, which ones?   |  |
| 5.4 | Has the BBS program been assessed by Gulf-<br>SQAS? If yes could the result of the<br>assessment been used for further<br>improvements of the system?  |  |