

***INTERNATIONAL CYANIDE  
MANAGEMENT INSTITUTE***

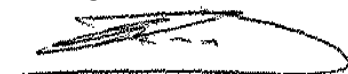
***Transportation Summary  
Certification Audit Report***

Tanker Services  
Food & Chemical Division  
Vanderbijlpark, South Africa

12<sup>th</sup> to 14<sup>th</sup> June 2018 &  
26<sup>th</sup> July 2018.

***For the  
International Cyanide Management Code***

Signature Lead Auditor



10<sup>th</sup> October 2018

## TANKER SERVICES - TRANSPORTATION SUMMARY AUDIT REPORT

Name of Operation: Tanker Services Food & Chemicals Division.  
Name of Operation Owner: Imperial Holdings  
Name of Operation Operator: Imperial Logistics  
Name of Responsible Manager: Mr. Ockert Breedt  
Address: 30 Fairbanks Road,  
Vanderbijlpark, Gauteng Province  
Country: South Africa  
Telephone: +27 (0) 11 821 6800  
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E-Mail: ockert.breedt@ tankerservices.co.za

### **Location detail and description of operation:**

The Depot deals with the transport of sodium cyanide solution and is situated at 30 Fairbanks Road, Vanderbijlpark, Gauteng Province, South Africa.

Tanker Services transports Sasol products which include sodium cyanide solution, hydrochloric acid, sodium hydroxide solution, sodium hypochlorite solution and anhydrous ammonia, ammonium nitrate and polyvinyl chloride.

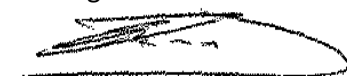
The operation took over the transportation of sodium cyanide solution from a Sasol subsidiary, Syloc, during June 2011. Tanker Services operates as an individually certified transporter entity. In terms of the business agreement between Sasol and Tanker Services, Food and Chemical Division, all the dedicated road bulk liquid cyanide tankers, truck tractors, the drivers, owner-driven truck tractors and their associated operating and maintenance records and documentation, will be transferred and taken over by the transporter (Tanker Services).

The dedicated sodium cyanide solution road tankers are stalled in a dedicated properly fenced off area at the depot in Vanderbijlpark where they are dispatched from to the consignor's premises to be loaded. The truck tractors are also stalled on Tanker Service's depot but away from any other truck tractors.

After been loaded, 98% of the time the vehicles depart from Sasol's cyanide plant directly to the Consignees based at various gold mines. In exception, but not the rule, road tankers are parked pre-loaded at the Depot and depart the following day from there. Night driving is not permitted.

Movement of vehicles are controlled from the Operations Offices at the Tanker Services Depot in Vanderbijlpark and the movement thereof Tanker Services utilising a tracking system.

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Truck tractors hitched to empty Sodium cyanide tankers will enter the Vanderbijlpark Depot for refuelling and documentation collection.

When the road tankers are required for maintenance repairs to be performed e.g. three (3) yearly pressure testing to be conducted or tanker to be sent for annual licensing and Certificate of Fitness, tankers are taken to the Sasol cyanide plant where the road tankers are decontaminated at a Sasol tanker washing facility prior to any work being carried out on it.

As Sasol (product owner / Consignor) being the most knowledgeable on sodium cyanide, Tanker Services has entered into an agreement with Sasol that the transporter will arrange where and when on the various routes the product is been transported, for information sessions to be presented. The transporter will invite all the relevant role players. Sasol only presents the information.

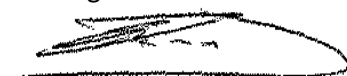
With regards to the conducting of route risk assessments, this function has been taken over from Sasol and the transporter is solely responsible to conduct these. It is the transporter's responsibility to inform the drivers of the hazards noted on route.

Clause 4.2.3 of the South African standard, SANS 10231-1:2018 Ed 4.1, requires the following from the transporter: -

*"The operator shall inform the local authority of the areas through which the vehicle will pass, and shall provide them with full information regarding the product to be transported (when requested by the local authority), the nature of its hazard, and the intended route. When the nature of business requires the transport of similar cargo on a regular basis, it will be sufficient to submit this information at the start of operations only. The operator shall, however, inform the appropriate local authority of the discontinuation of such operations."*

During the audit this requirement was verified and found to have been done.

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## Auditor's Finding

This operation is

**X in full compliance** \*(see below)  
in substantial compliance.  
not in compliance

with the International Cyanide Management Code.

The audit was conducted on 12<sup>th</sup> to 14<sup>th</sup> June 2018 and 26<sup>th</sup> July 2018. Due to more information that was required, the transporter's facility was revisited on 9<sup>th</sup> October 2018.

During the initial audit conducted a few minor non-compliance issues were identified and noted. The most serious observation made was the fencing around the yard where the empty road tankers are parked. All the non-compliance issues were raised with the auditee.

During a follow-up audit conducted on 26<sup>th</sup> July 2018, the auditor noted that the transporter complied with all the requirements for recertification.

During the past three (3) years audit cycle (2016 – 2018) this operation hasn't experienced any cyanide incidents, accidents, product exposures, consignor complaints, consignee complaints or compliance problems.

Both the two owner drivers each bought three brand new truck tractors which is been used to pull cyanide road tankers with. Owner vehicles were found to have been serviced at intervals as per their respective vehicle maintenance programme. The same apply to the road tankers belonging to Tanker Services. Mandatory inspections were done and these tankers conforms to the requirements as per South African National Standard code 1518 and other National legislative requirements.

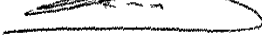
Pre-trip checks on vehicles are done by the drivers with the Operations Clerk verifies the noted findings. Additional to this, the Transporter appointed an employee (Inspector) with the explicit duty to check the conformance of the drivers as well as the vehicles prior from leaving the Vanderbijlpark depot. Checks are done based on a pre-compiled checklist onto which his findings are recorded. Any defect noted by either the driver or the Inspector is recorded as per "Defect report" and a job card is generated and defect rectified. Only after this is done the driver is allowed to leave the depot.

Audit Company: Private

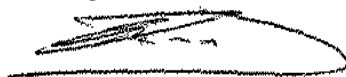
E-mail : [tommieb.muller@gmail.com](mailto:tommieb.muller@gmail.com)

Auditor: Tommie Müller

Name and Signature of Transportation Auditor:

Name: Tommie Müller Signature: ...  .... Date: 10/10/2018 ....

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I attest that I meet the criteria for knowledge, experience and conflict of interest for Code Verification Audit Team Leader, established by the International Cyanide Management Institute and that I meet the applicable criteria established by the International Cyanide Management Institute for Code Verification Auditors.

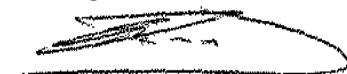
I attest that this Summary Audit Report accurately describes the findings of the verification audit.

I further attest that the verification audit was conducted in a professional manner in accordance with the International Cyanide Management Code Verification Protocol for Cyanide Transportation Operations and using standard and accepted practices for health, safety and environmental audits.

Signed: Tommie Müller

Auditor:  Date: 10/10/2018 ....

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10<sup>th</sup> October 2018

# TANKER SERVICES - TRANSPORTATION SUMMARY AUDIT REPORT

## **1. TRANSPORT: Transport cyanide in a manner that minimizes the potential for accidents and releases.**

*Transport Practice 1.1: Select cyanide transport routes to minimize the potential for accidents and releases.*

**X in full compliance**

**The operation is**            in substantial compliance            **with Transport Practice 1.1**  
not in compliance

*Summarize the basis for this Finding/Deficiencies Identified:*

Tanker Services have renegotiated the cyanide transport contract with the manufacturer of liquid cyanide and such contract has subsequently been approved.

Procedure for Route Risk Assessments is in place as well as Route Risk Assessment guidelines. All route risk assessments on the primary and secondary routes were conducted in accordance to the transporter's procedure and guidelines. Route Risk Assessments (RRA) are approved by transporter's senior management as well as the Consignor (Sasol) representative.

In accordance to the contractual agreement with Tanker Services, Sasol's responsibility for conducting and or reviewing of risks on the existing / new routes has been withdrawn. This responsibility have now solely been transferred to the transporter.

Route planning procedure No. PROC - OPS - 005 version 1 dd May 2018 in place and stipulates that that route risk assessments be carried out on a two (2) yearly basis. Procedure sighted.

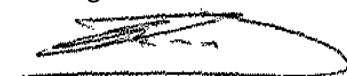
Tanker Services operating as an individual transporter is responsible for the conducting of Route Risk Assessments of new routes and the reviewing of the existing assessments of all new routes.

RRAs have been revised and updated to cover the approved routes as well as the alternative routes. Assessments found to have been approved by the transporter's management.

The completed route risk assessments indicated that the population density in formal and informal settlements, road surface, condition of road, impact of temperature on road surface, edges of tar roads (for deterioration), inclines adjoining roads and the possible effect should vehicles need to pull off the road, pitch and grade, and weather conditions were taken into account. Recommendations to prevent of eliminate the risks been addressed on RRA documents.

The contents of the various route risk assessments were made known to the truck drivers. As part of their trip sheet documentation the latest Route Risk Assessment is included. RRAs are also addressed during driver briefing and de-briefing sessions. Driver's "Briefing and Debriefing" procedures are in place.

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During de-briefing sessions feedback on risks noted by drivers, this issue been discussed with drivers. Comments made by a driver (Robin) in this regards was noted on his de-briefing document dated 13/11/2017.

Sasol as the cyanide producer and product specialist on invitation of Tanker Services, conducted "Cyanide Awareness Road Shows" to inform and update all various relevant stakeholders on the routes with regards to cyanide product info, product awareness and cyanide emergency procedures.

Proof of this was noted in a document that during the period 14th Sept to 22nd Sept 2017 road show was held on the route from Sasolburg to Durban. Meetings were held with police services, Fire Departments, Traffic officials, Ambulances, Disaster Managements and doctors. Presentations and minutes of these meetings were sighted.

According to the manufacturer no escorts of cyanide transport is required in South Africa , unless required by consignee. Travelling with a consignment of cyanide through Zimbabwe, latter's EMA requires escorting of such consignments whilst on their turf. To comply with legislation, the Consignees in that country, provides these escort services. Currently no cyanide in any form is transported through Zimbabwe.

*Transport Practice 1.2: Ensure that personnel operating cyanide handling and transport equipment can perform their jobs with minimum risk to communities and the environment.*

### **X in full compliance**

**The operation is**                      in substantial compliance                      **with Transport Practice 1.2**  
not in compliance

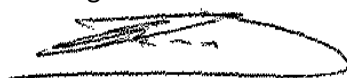
*Summarize the basis for this Finding/Deficiencies Identified:*

As per South African legislation, drivers employed as dangerous goods drivers, must be older than 25 years of age, in possession of a valid EC code driver's license and must be medically fit for the duty.

Documentary evidence indicated that all drivers are legally licensed as Category "D" (Dangerous Goods) drivers. Professional Driving Permit with category "D" (PrDP- D) licences need to be renewed every two years. All drivers do conform. Dangerous goods training for drivers transporting classified goods are required to attend and pass dangerous goods training course (practical and theoretical) which must be presented by and approved and registered training institution approved by Government. Drivers have attended and passed their dangerous goods training course as required by the South African National Road Traffic Act and the South African Bureau of Standards (SABS) code of practice number SANS 10231:2014. Training of such is an annual requirement by SA law.

The training centre at Tanker Services Vanderbijlpark has been certified as approved by the South African Training Authority. Transport Education Training Authority (TETA) issued a certificate No. TETA 04-128 dated 27/3/2018 which expires 31/3/2020. Training presenter must also be certified competent. Both these certificates were noted. Drivers attended theoretical and practical training on each subject. Training certificates as well as training course material for drivers were sighted.

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Divers have attended and passed their 2 yearly level 1 basic first aid training course presented by an external service provider. Certificates found to be valid.

Certificates were sighted. Relevant work required training and legal required training for drivers are documented on an Excel spreadsheet-based training matrix.

Certain mines require that drivers are trained in the Consignee's off-loading procedures before being permitted to enter the mine and off-loading commences. Training in the off-loading procedures is done annually. Driver training includes cyanide awareness, use of PPE, fire fighting, cyanide first aid and mine off-loading procedures. Planned task observations were carried out on drivers. Documentary proof noted.

All depot maintenance staff has attended a cyanide awareness training session for which proof thereof is available. Documents were noted by auditor.

*Transport Practice 1.3: Ensure that transport equipment is suitable for the cyanide shipment.*

### **X in full compliance**

**The operation is** in substantial compliance **with Transport Practice 1.3**  
not in compliance

*Summarize the basis for this Finding/Deficiencies Identified:*

Tanker Services utilises dedicated liquid cyanide bulk road tankers. These road tankers in use are manufactured in accordance to SANS (South African National Standards) Code 1518 which addresses the basics of chemical tankers design.

Regulation 13(1)(b) of the regulation "Vessel under Pressure" under the South African Occupational Health & Safety Act requires that pressure vessels be tested by and Authorised Inspection Authority (AIA) every 36 months. Transporter conforms to this legal requirement. Copies of inspection certificates were found on file, is valid and noted. Manufacturer's road tanker specs were noted.

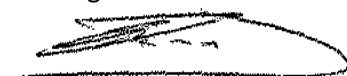
The off-loading is done by bottom off-loading. As cyanide is off-loaded at Consignee's facility into holding tanks, the off-loading procedures stipulates that cyanide is to be off-loaded by pressurising the tanker to a maximum working pressure of 2 bar. The design pressure of tankers is 10 bar.

The company is in possession of these technical specification covering tank design, type, tare weight, weight distribution, coupling height and dimensions. Currently 15 road tankers are in use and to date no new cyanide tankers have been purchased.

Currently 18 road tankers are available. Capacity varies from 24 tons to 32 tons. 17 of these road tankers are in use with 1 as been a relief tanker on standby. At the time of the audit no new cyanide tankers have been purchased.

Regulation 13(1)(b) of the regulation "Vessel under Pressure" under the South African Occupational Health & Safety Act requires that pressure vessels be tested by and AIA every 36 months. Transporter conforms to this. Copies of certificates were found to be on file, valid and noted. Manufacturer's specs noted.

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The under-run of the road tankers are serviced at the transporter's mechanical workshop and the tanks itself serviced by the tank builder company. The servicing of the truck tractors is the responsibility of the owners. Copies of services been carried out on truck tractors are required by transporter. Every six months the Tanker Services workshop foreman carries out a visual inspection on the truck tractors to ensure compliance.

Daily pre-trip vehicle inspections are carried out by drivers to ensure vehicle is fit to be used. Findings are documented and kept at the office of the Operations department for audit or reference purposes.

Road tankers are individually registered on the Sasol weighbridge system. Loading facilities are fitted with a level control system which ensures that road tankers are not loaded beyond its predetermined capacity per compartment.

Consignor (Sasol) is responsible for the loading of the road tankers at their dedicated cyanide loading gantries and dedicated cyanide tankers are used. Loading booms have level probes fitted which ensure that road tankers cannot be over filled. Prior to departure from consignor's premises, vehicles need to proceed over a weighbridge to check the mass been loaded. Weighbridge is programmed not to print a weighbridge ticket if the load is above the legal ticket limit and even under loaded.

Electronic weighbridge calibrated every two years. Weighbridge was calibrated and a certificate was issued. Weighbridge is maintained by the manufacturer / consignor. Procedure "Off-loading of an overloaded cyanide tanker" is in place and spells out how to deal with overloaded road tanker.

*Transport Practice 1.4: Develop and implement a safety program for transport of cyanide.*

### **X in full compliance**

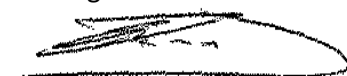
**The operation is** in substantial compliance **with Transport Practice 1.4**  
not in compliance

*Summarize the basis for this Finding/Deficiencies Identified:*

Maintenance procedures found to be in place. Documentary evidence that statutory inspections of tractor units and road tanks were carried out and available on file. Copies of Certificate of Fitness (COF's) available and sighted. Legislation in South Africa has been amended that makes provision that a transporter's vehicles, besides all the other legislative requirements for the transportation of classified goods, need to be certified by the local Fire Prevention Officer as suitable to carry certified goods. Latter issues a Dangerous Goods Certificate for each of the fleet units that will be used for this purpose. Dangerous Goods Certificates for tanker Fleet NO. S.5079, S.5086, S5092, T/Tractor DZ 08 PX GP certificate issued 12/12/2017, DZ 43 KM GP certificate dated 12/12/2017 noted.

Cyanide is transported in dedicated pressure vessels (Bulk Tankers) which conform to the South African Standard code of practice, South African National Standards (SANS) code 1518. In terms of South African legislation pressure vessel are to be subjected to pressure

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tests every 3 years or whenever required. These tests were done by an accredited company and certificates reflecting the outcome were issued and found to be on file.

Transport signage format and styling is dictated by South African Road Traffic Act, Act 93 of 1996 and the South African Bureau of Standards (SABS) Codes of Practice, South African National Standard (SANS) code 10231; 2014 Ed 4. Tankers only travel within National borders of the RSA. Document "Vehicle Daily Pre-start Checklist" in use and signage on tankers and orange diamond on front of truck tractor's cab are part of the items on the checklist that is to be checked prior to leaving the depot. These checks are done by driver prior to departure. During site walk-about the signage displayed on vehicles was checked and found to be in compliance to the legislation. The format, styling and printed detail on the placarding was found to be in accordance to the SANS code of practice 10231:2014 Ed 4.

Placarding conform to the legal requirements. Correct product UN number, the transporters telephone number, the specialist advice telephone number and product hazard decal displayed on placard. Noted tanker placards been fitted on left, right and rear of the road tanker. Orange diamond fitted to the front of the truck tractor.

Pre-trip checklist is done by driver prior to departure from Depot. Document "Vehicle Daily Pre-start Checklist" in use and all relevant signage are checked prior to leaving the depot.

At consignor's premises the format and layout of the placards are checked as part of their vehicle inspection and access procedure. Before access to end users premises is allowed, consignees conduct verifying checks (pre-entry at mine inspection checklist).

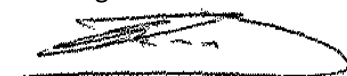
Dedicated road tankers are used for the transportation of cyanide. At random vehicle and placard checks are conducted by Controllers. Findings documented on Pre-trip checklist. Should a defect been noted a "Vehicle Repair Voucher" is generated and vehicle is directed to workshop for repairs. Repairs are done on a job card. Once defect has been repaired driver and workshop foreman endorses the "vehicle repair voucher" and the "Job card". Only then vehicle is allowed to leave the depot. Workshop Foreman conducts monthly equipment service.

Tanker Services uses the vehicle preventative maintenance manual for the servicing and service interval of their vehicles as prescribed by their umbrella Company, Imperial Logistics. This procedure manual includes maintenance procedures, workshop instructions, preventative maintenance forms, internal and external audit requirements and documentation.

Vehicle maintenance files, record of services carried out and maintenance records were reviewed, as well preventative maintenance forms which included truck tractor service, truck tractor and tanker trip checks. The maintenance records of the owner-drivers vehicles are reported to Tanker Services and these records are incorporated into Tanker Services maintenance database to ensure service intervals are consistent with manufacturer's recommendations. Service records of owner-driver vehicles were noted and found to be up to date. The checking of the vehicle's braking system is included in the service records and noted.

Trip scheduling is done internally using manual planning. The commercial contract between the transporter and the consignor (Sasol) a trip limitation of 14 hours per day is agreed upon. The legal status is that drivers are not allowed to drive more than 14 out of the 24 hours per day. Driver Trip sheet indicates starting time and the time back at the Depot on ending of

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journey. Trip planning also tracks driver's operating times, which is backed up by satellite tracking.

Information on weather and road conditions is provided by the South African National Weather Service, the South African Road Freight Association and Sasol. A whatsapp group have been established of which the transporter has enrolled on. This group system informs transporters, other participants and road users on road conditions, motor vehicle accidents, civil unrest issues, hi-jacking incidents, weather conditions, etc. This system covers the entire South Africa and gets updated as incidents are reported.

Tanker Services has a Drug and Alcohol Abuse Policy statement which prohibits the use, possession, distribution and sale of alcohol/illegal drugs. Policy has been signed by their Chief Executive Officer (CEO) and a copy is also included into their driver's manual. Policy sighted.

Any person entering the depot is required to be subjected to an alcohol breathalyser test. Only when a negative reading is displayed on the device, such person will be allowed onto the Depot premises. On leaving the premises employees, drivers, visitors and Management are subjected to a breathalyser test.

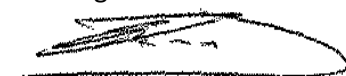
Before entering Sasol's premises, including the loading area, drivers are required to be tested for the consumption of alcohol. Any traces noted, how insignificant it may be, the driver is turned away. This principle is also applied at the Consignee's premises.

A procedure was found to be in place that requires that the customer must be notified if a situation arises that renders the necessity to suspend or cease a delivery. After being in consultation with the customer (consignor) the transport controller takes the decision whether consignment must be delivered, no delivery is to be made or driver to pull off the road at a safe stopping area. Driver informs Operations of the stopping area. Re-routing of delivery is also an option but is subjected to prior approval by Depot Manager. This is discussed with the driver by Operations Controller. Consignor and Consignee not advised accordingly. Driver allowed ceasing transport if circumstances are of such a nature that is dangerous to proceed. Driver travels up to a safe stopping area where after the Operations Controller is notified of his doing.

If during a pre-employment medicals examination traces of alcohol or illegal drugs is noted, the individual will not be employed. If detected during routine medicals, policy dictates a program of support and counselling before dismissal. Drug abuse forms a part of the on-going rotating safety management program.

The retention periods for documents found to be in use at the transport company. These periods are covered in a document called "Document Retention procedure". Procedure No. L1-003 Rev -1 dated 1/10/2017 refers. Retention period of documents stipulates that documents are to be kept for periods that vary between 90 days to 40 years, depending on the type of document it might be. The retention of documents such as Proof of Delivery (POD) document, trip sheets, planning sheets, weighbridge ticket, are to be kept for a minimum period of 5 years. Daily vehicle inspection sheets and dangerous goods declarations are kept for a period of 90 days. Records of vehicles and the maintenance done on such vehicle must be kept for the life span of the vehicle. Medical records of drivers are retained for 40 years from exit. Commercial documents are kept for a period of 5 years where after it is sent to Metro File where it is archived. The Metro file system is kept off-site.

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The archive was visited and found to have been locked. The facility is of an acceptable standard and does conform to archive standards. Documents from this archive are easy retrievable.

*Transport Practice 1.5: Follow international standards for transportation of cyanide by sea and air.*

**X in full compliance**

**The operation is** in substantial compliance **with Transport Practice 1.5**  
not in compliance

*Summarize the basis for this Finding/Deficiencies Identified:*

This section is not applicable as the transporter is not involved in air or sea transport modes.

*Transport Practice 1.6: Track cyanide shipments to prevent losses during transport.*

**X in full compliance**

**The operation is** in substantial compliance **with Transport Practice 1.6**  
not in compliance

*Summarize the basis for this Finding/Deficiencies Identified:*

The main means of communication between Operations Officer on duty and the driver is by using the cellular telephone. A Company cellular phone is allocated to the truck driver. The driver does not communicate with the mining operation, cyanide producer or emergency responder. Any communication is done via the Operations Officer. During walk about mobile phones were noted and checked for functionality. Drivers also have personal cell phones as back-up. Daily trip checklist and briefing session includes checking / verification of cell phone for proper functioning.

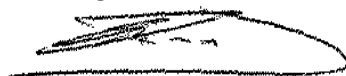
Communications black-out areas were considered during the conducting of route risk assessments.

According to the route risk assessment scrutinised hardly any cell phone blackout areas were noted. However if it does appear to be, alternate arrangements are made which include telephone report-ins at beginning and end of the blackout areas. A procedure with reference PROC -001 Rev 1 dated 18/6/2018 compiled and in use. Procedure noted.

Tanker Services Controller at random calls the drivers en route to determine their position and compare that info with the image on the tracking system.

All truck tractors are fitted with a Mix Telematicx Tracking Systems. Device positioned in an office which is 24/7 365 days per year manned. The Satellite Tracking System is used for constant monitoring the movement of the consignment and it is done from the Tanker Services Control Room in Vanderbijlpark. System sighted and found to be operative.

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The Trip Planning officer submits list of deliveries the day before departure and the tracking company contracted for this, monitors the journeys and checks any deviations from route or route plan. Any deviation is reported to the Operations Controller.

At random whilst on route, the Operations Supervisor contacts the driver to determine his position as well as determining the shipments position by utilising the satellite vehicle tracking system.

The operability of the tracking system is checked daily and that of the driver's cell phone during briefing session.

After loading has been completed, all outlet valves on discharge manifold on the road tankers are sealed with a serial numbered plastic seal. The serial numbers on the seals are documented on transporter's delivery note. Product is kept under a positive pressure inside the road tanker. An electrical interconnection between the park / emergency brake. Activating this switch opens the butterfly valve on the discharge manifold line.

The vehicle carries a Tremcard, the product SDS, a trip sheet, delivery document, and weighbridge ticket. The South African legislation requires is the Tremcard related to the product must be available in the vehicle's "dedicated space" (legal specification) and the customer must have a copy of the SDS.

Verified that a vehicle designated space is affixed to the inside of the cab of the truck tractor as required

Verified all required documentation available in the designated space inside the cab. An updated SDS for the product was noted inside the designated space. In terms of SA requirements, a SDS revision date must not be older than 3 years. SDS conformed to this. Should it be found that a SDS is outdated, Tanker Services Management will immediately contact the Consignor to provide the latest revised product SDS.

The mass loaded into the road tanker is indicated on the Dangerous Goods Declaration, the weighbridge ticket as well as on the delivery documentation.

### **2. INTERIM STORAGE: Design, construct and operate cyanide trans-shipping depots and interim storage sites to prevent releases and exposures.**

*Transport Practice 2.1: Store cyanide in a manner that minimizes the potential for accidental releases.*

**X in full compliance**

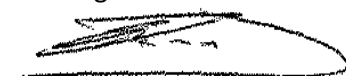
**The operation is** in substantial compliance **with Transport Practice 2.1**

not in compliance

*Summarize the basis for this Finding/Deficiencies Identified:*

At times when pre-loading of tankers is done, road tankers are parked in a pre-determined and dedicated parking area. This area is fenced off and gates are locked.

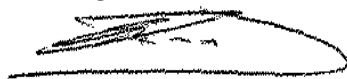
Signature Lead Auditor



10<sup>th</sup> October 2018

TANKER SERVICES - TRANSPORTATION SUMMARY AUDIT REPORT

Signature Lead Auditor

A handwritten signature in black ink, consisting of several overlapping, horizontal strokes that form a stylized, elongated shape.

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Filled road tankers occasionally been parked inside the dedicated cyanide tanker parking area which is situated on the premises of Tanker Services. All pre-loaded tankers leave the parking area within a 12 hour period from being parked to deliver product to end users.

The parking area for road tankers is fenced off and the gates kept locked at all times. Keys are kept with the security officer on duty. Only security officers are allowed to unlock the entrance gates. Area is patrolled by security staff 24/7. Area is properly lit at night time. Tanker keys held in a lockable key box at the Security Office. A key control register available at the Security office. Visitors control register in use at the entrance to the controlled parking area. Besides all the information regarding the visitor to the inside of the parking area, a column is inserted on the access control register requesting the purpose for the person/s to enter this area.

Signage physical observed. "No smoking", "No eating / drinking", "No open flames", required personal protective equipment (PPE) safety signage displayed. Some of the applicable safety weren't clearly visible. On re-visit the safety signs were found to be clearly displayed and visible from a distance.

Appropriate and relevant symbolic safety signage is displayed against the fence. Skull and cross bone signs are displayed as well as the name of the product kept in this area as well as two signs indicating the hazards of the product that is kept inside the fenced off area. Signage is well visible and legible. The minimum PPE that is to be worn when entering the parking area as well as when handling cyanide is clearly indicated by the appropriate symbolic safety signage.

The damaged Eastern section of the fence was removed and replaced. The entire fence around the parking area was found to be in a very good condition.

The entire parking area is so designed and built (after an EIA was done) that in the unwanted event of a leakage, no ground pollution can take place. Beneath paving is a thick plastic layer which creates an impervious surface. Any leakage can be contained. Parking area is way away from the area where the other vehicles are parked.

### **3. EMERGENCY RESPONSE: Protect communities and the environment through the development of emergency response strategies and capabilities**

*Transport Practice 3.1: Prepare detailed emergency response plans for potential cyanide releases.*

#### **X in full compliance**

**The operation is** in substantial compliance **with Transport Practice 3.1**

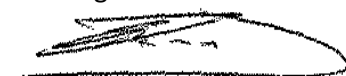
not in compliance

*Summarize the basis for this Finding/Deficiencies Identified:*

Procedure for handling for on-site and off-site emergencies is in place including the Emergency Response Guide. A Tanker Services "Emergency Response Plan (ERP) for Cyanide" dated January 2018 and list of emergency telephone numbers (SQAS Ref No

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## TANKER SERVICES - TRANSPORTATION SUMMARY AUDIT REPORT

2.1.3.1 refers) found to be available and displayed where required to. Auditor sighted both these documents. Auditor sighted the Off-site response procedure and the Registration Certificate of a Spill Response Company. The transporter has entered into a contract with Spilltech who is an approved spill responder and cyanide first aid service provider. Spill Tech has been approved by Sasol as a cyanide spill responder for any transportation on route or depot incidents.

Fully equipped cyanide emergency trailers were stationed at Harrismith, Upington, Kuruman, Vryburg, Welkom, Potchefstroom, Klerksdorp. This is done due to the lack of municipal emergency services and resources on most of the routes that cyanide is being transported in South Africa. Arrangements have been made with local emergency services to respond to off-site emergency incidents awaiting the arrival of the Tanker Services and Consignor's Spill Response Team.

Auditor sighted and verified the transporter's off-site response procedure. It was noted that the Emergency Response Plan (ERP) for off-site emergency situations wasn't revised annually as per Tanker Service standards. During re-visit it was noted that the plan was revised and approved. Spill Responder's certificate was verified for validation.

Emergency response to cyanide releases associated with transportation is channelled through the Tanker Services Depot where after they activate their Emergency Response Plan for off-site incidents. Appropriate response teams, based upon geographical location and circumstances will be mobilised.

The transporter has a fully equipped Sasol Cyanide Emergency Response Trailer on their premises. The contents of the trailer can be utilised by the Transporter's Emergency Response team for cyanide transportation incidents on route as well for depot incidents.

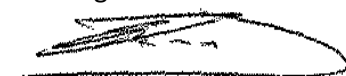
Sasol requires that the contents of these trailers be checked on a monthly basis of which the completed checklist must be reverted to Sasol as proof that the equipment have been checked and still in a operative condition. Sasol also perform unannounced visits to these centres to check the credibility of the checks that has been done.

On 8<sup>th</sup> August 2018 auditor visited the spill reaction centre in Welkom, in the province of the Free State, South Africa. Trailer and equipment were found to be in order and checked daily.

Tanker Services will not be directly involved in response as their role during an emergency situation is one of providing assistance where and when required. The entire emergency situation is handled by Chief Fire Officer of the local Emergency Services in the area where the incident had taken place.

Tanker Services in conjunction with the Consignor scheduled a cyanide mock drill to be held during first quarter of 2018. An emergency drill where cyanide was involved was held on 15/3/2018.

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## TANKER SERVICES - TRANSPORTATION SUMMARY AUDIT REPORT

*Transport Practice 3.2: Designate appropriate response personnel and commit necessary resources for emergency response.*

### **X in full compliance**

**The operation is** in substantial compliance **with Transport Practice 3.2**  
not in compliance

*Summarize the basis for this Finding/Deficiencies Identified:*

Tanker drivers and Hazmat service providers are fully and comprehensively trained by Sasol. A "Career Development Training Plan" available at the transporter's training centre for the retraining of drivers, etc. Tanker Services has its own fully authorised and approved training centre with two accredited trainers based at the Vanderbijlpark depot. (TETA Certificate No. TETA 04-128 dated 27/3/2018.) Certificate expires 31/3/2020. Approval certificates with Ref no. TETA -ASSR Q17-422 AND TETA-MODR 13-8 expires November 2020. Certificates available and noted.

Attendance registers, training modules, theoretical questionnaires and certificates of drivers/appropriate personnel noted. Cyanide awareness sessions been presented to medical, emergency staff and traffic officers provided to understand cyanide emergencies.

The emergency response service provider, Spilltech, have been trained by Sasol (being the most product knowledgeable) in cyanide awareness, basic cyanide first aid and emergency response. The same type of training has been presented by Tanker Services to their own emergency team as well as the Tanker drivers. Training is refreshed annually.

Emergency response to cyanide releases associated with transportation is channelled through Tanker Services Depot where after they activate their Emergency Response Protocol for off-site incidents and who will mobilise the appropriate response teams, based upon geographical location and circumstances. Cyanide emergency response has also been contracted to Spilltech as the Company's spill response company.

Spilltech being an approved spill response and cyanide first aid service provider and provide a service to Tanker Services.

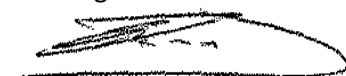
Spilltech has a fully equipped Cyanide Emergency Response Trailer on their premises. The service provider functions as a Cyanide Emergency Response team for cyanide transportation incidents or depot incidents.

Tanker Services utilises their own cyanide emergency response team (supplied by Sasol) as well as their approved specialised Emergency Response Service Provider.

Every driver has been issued and trained in the use of their personal protective equipment consisting of a protective suit, face shield, eye protection, hard hat, respirator and appropriate canister, yellow gum boots, and PVC gloves.

Refresher training been presented, annually and in certain instances 2 yearly, after an incident has occurred or when need required. Cyanide first, dangerous goods, procedures / instruction information awareness, cyanide plant induction, consignee's mine induction, emergency oxygen inhalator, been presented annually. Two (2) yearly refresher training on

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## TANKER SERVICES - TRANSPORTATION SUMMARY AUDIT REPORT

fire and first aid training, Professional Driver's Permit for transporting dangerous goods (PrDP-D).

Every three years, tanker equipment knowledge, PPE. load securement, coupling and uncoupling of road tankers, theoretical and practical training presented. Training matrix gets updated.

Transporter checks on site emergency response equipment e.g. Fire extinguishers, first aid contents, spill kits and safety showers. Checklists noted by auditor who verified and found checks have been performed on a monthly basis.

During site inspection drivers Andries Mahluku and Alfred Mosia were interviewed on the fitting and wearing of the full face mask. Both these drivers were found to be fully conversant on when and how to use it and capable in fitting the mask correctly. Proof of training noted on driver's file.

Depot staff will raise the alarm and evacuate, allowing Spilltech to handle situation. Spilltech are capable to respond within 10 minutes from receiving a telephone call. Spilltech have a Sasol cyanide emergency response trailer at their premises. The Workshop staff is the only possible cyanide source (abnormal maintenance scenarios) and maintenance staff all received cyanide awareness training.

*Transport Practice 3.3: Develop procedures for internal and external emergency notification and reporting.*

### **X in full compliance**

**The operation is** in substantial compliance **with Transport Practice 3.3**

not in compliance

*Summarize the basis for this Finding/Deficiencies Identified:*

A written plan for dealing with on-site and off-site emergencies currently in use. SQAS Ref No 2.1.3.1 refers

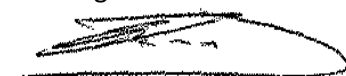
The transporter has a protocol which stipulates who should be contacted in the case of any transport related incident. SQAS Ref No. 2.1.3.2f "list of the different parties to be informed" with their contact details (customers, authorities, etc) refers. Proof of aforementioned document and the reporting notices, were noted by the auditor.

Transporter do have a list of emergency telephone numbers which is available at Depot's reception, with the Depot Manager, the Control office, Tanker Services Safety Officer and the Consignor's Call Centre. Tanker Services Cyanide Emergency Procedure includes updated contact information for medical, fire and emergency authorities, spill response and clean up service providers, regulatory notification contacts, Sasol's Call Centre and Tanker Services 24 hour control room. This procedure requires these actions

Tanker Services have formally appointed employee as an Emergency Controller of which one of his duties is to keep the emergency contact telephone list updated. Appointment and updated emergency reaction plan been noted.

"En-route / Onsite / Departure Response" procedure sighted.

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## TANKER SERVICES - TRANSPORTATION SUMMARY AUDIT REPORT

Documented procedure with SQAS reference No. 1.2.1.1 in place for recording and investigating non-conformances / Accidents / Incidents. South African National Environmental Management Act requires that any spillage of a chemical must be reported to the Department of Environmental Affairs.

Transporter have formally appointed one of their employees as an Emergency Controller of which some of his duties is to keep the emergency contact telephone list updated and to submit reports to Governmental Authorities. ERP been updated yearly. Plan contains list of emergency telephone numbers. Document noted.

*Transport Practice 3.4: Develop procedures for remediation of releases that recognize the additional hazards of cyanide treatment chemicals.*

**X in full compliance**

**The operation is**      in substantial compliance      **with Transport Practice 3.4**  
not in compliance

*Summarize the basis for this Finding/Deficiencies Identified:*

Transporter has entered into a Service Level Agreement (SLA) with Spilltech signed 12/3/2018, an approved spill response service. A Service Level Agreement document noted.

Remediation procedures are applied by Spilltech (a spill clean-up company) which are based on National requirements. Spilltech uses the Tanker Services procedures for clean up which include prohibitions of the use of certain chemicals to treat cyanide spillage near surface water.

The consignor does not recommend that Tanker Services or its spill responder to use sodium hypochlorite, ferrous sulfate or hydrogen peroxide for the purpose of neutralising sodium cyanide. Ferrous Sulphate must only to be used to detect traces of cyanide.

*Transport Practice 3.5: Periodically evaluate response procedures and capabilities and revise them as needed.*

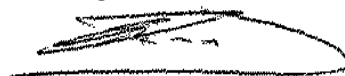
**X in full compliance**

**The operation is**      in substantial compliance      **with Transport Practice 3.5**  
not in compliance

*Summarize the basis for this Finding/Deficiencies Identified:*

A procedure found to be in place which stipulates that reviews of documentation be done with a maximum of once per year or after a significant incident or after a mock drill. The Emergency Management Plan (EMP) (Procedure PR.HSE.019dd 15/8/2017 Rev No. 2) refers and noted.

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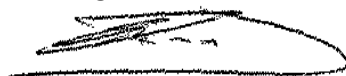
## TANKER SERVICES - TRANSPORTATION SUMMARY AUDIT REPORT

Tanker Services in conjunction with the Consignor (Sasol) have scheduled a cyanide emergency drill to be held during first quarter of 2018 during which all emergency responders, transporter, drivers, the manufacturer and other stakeholders will be involved. This is to test the current appropriate emergency response, competency of emergency responders and to identify any short comings and to establish and implement improvements to the EMP. Official summary of the exercise is waited from Sasol.

An transport emergency drill, where cyanide was involved, was held on 15/3/2018. All stakeholders participated in this exercise.

End of report.

Signature Lead Auditor



10<sup>th</sup> October 2018