



August 2014

ICMI RE-CERTIFICATION SUMMARY REPORT

Lučební závody Draslovka a.s. Kolín

Submitted to:

International Cyanide Management Institute
(ICMI)
1400 I Street, NW - Suite 550
Washington, DC 20005
UNITED STATES OF AMERICA

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REPORT

Report Number. 13514140561.500/A.1

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1.0 SUMMARY AUDIT REPORT FOR CYANIDE PRODUCTION OPERATIONS

Name of Cyanide Production Facility:	Lučební závody Draslovka a.s. Kolín
Name of Facility Owner:	Lučební závody Draslovka a.s.
Name of Facility Operator:	Lučební závody Draslovka a.s.
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2.0 LOCATION DETAIL AND DESCRIPTION OF OPERATION

2.1 Site Location

The Draslovka facility is located on the southeast side of the town of Kolín (which is located around 50 km east of Prague). It is located in a mainly industrial/commercial area of Kolín, although some residential land use is located adjacent to part of the facility. A railway line, and beyond that the River Labe (also called River Elbe in other parts of Europe), is located on the northern boundary of the facility and an alcohol distillery called BIOFERM is located to the west; commercial and residential apartment blocks are located to the east. To the south lies a main road into Kolín.

2.2 Background

Manufacturing activities at the Draslovka facility commenced around 1906 and included the production of cyanides. Hydrogen cyanide was produced from molasses stillage supplied by the distilleries. The factory was damaged during an air raid in April 1945 and production was restarted in 1946. The manufacturing was then nationalised in 1946.

At the beginning of the 1960s, a pilot plant for the production of synthetic hydrogen cyanide was built. In 1968, the first unit for the production of hydrogen cyanide using the Andrussow process commenced operation. In 1984 the Kolín company was integrated into s.p. Lachema Brno - Lučební závody výrobní podnik Kolín.

In 1992, Lučební závody Kolín a.s., gained independence from the State and in 1994 Lučební závody Draslovka a.s. Kolín began operations as a private company, when the original company was split. In 1998, new investors entered the company as majority shareholders.

The company currently manufactures a range of products at the facility including:

- Alkali cyanides, solid sodium cyanide, sodium cyanide solution, and potassium cyanide (used in gold mining and electroplating);
- Diphenylguanidine (DPG) used as a rubber accelerator in the rubber-making industry;



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- Syntron – the most universally used chelation agent in production of cleaning and washing agents and for water treatment;
- Chlorocholine chloride (CCC) used as growth regulator in agriculture and is produced seasonally; and
- Chemical specialties based on hydrogen cyanide, for example EDN production (an eco-friendly biocide).

The site has around 235 employees and has a certified quality management system in accordance with ISO 9001 and environmental management system in accordance with ISO 14001.

The site produces around 12,500 tonnes per annum of cyanide products.

Cyanide is manufactured at the facility using the Andrussow process. In this process, natural gas (methane), ammonia and oxygen are reacted over a platinum/rhodium catalyst to form hydrogen cyanide (HCN) gas. The HCN gas is then absorbed into caustic soda to form a solution of sodium cyanide (or potassium hydroxide to form potassium salts). This cyanide liquor is then concentrated, crystallised, dried and compacted into solid sodium cyanide.

Cyanide manufactured at the facility is used in gold mining operations within Europe. Draslovka exports 90% of its production.

Signature of Lead Auditor



SUMMARY AUDIT REPORT

Auditors Findings

Lučební závody Draslovka a.s. Kolín is: in full compliance with **The International Cyanide Management Code**

in substantial compliance* (see below) with **The International Cyanide Management Code**

not in compliance with **The International Cyanide Management Code**

This operation has maintained full compliance with the International Cyanide Management Code throughout the previous three- year audit cycle.

Audit Company: Golder Associates
Audit Team Leader: Sophie Wheeler, Lead Auditor
Email: swheeler@golder.com

Name of Other Auditors

Name, Position	Signature
Dale Haigh, ICMI Pre-certified Production Technical Specialist	

Dates of Audit

The Re-certification Production Audit was undertaken within three days (three person-days) between 4 March 2014 and 7 March 2014.

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 all members of the audit team 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.

Lučební závody Draslovka a.s. Kolín 21 August 2014
 Name of Facility Signature of Lead Auditor Date

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 Report No. 13514140561.500/A.1

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PRINCIPLE 1 – OPERATIONS

Design, Construct and Operated Cyanide Production Facilities to Prevent Release of Cyanide

Production Practice 1.1: Design and construct cyanide production facilities consistent with sound, accepted engineering practices and quality control/quality assurance procedures

in full compliance with

The operation is

in substantial compliance with

Operations Practice 1.1

not in compliance with

Summarise the basis for this Finding/Deficiencies Identified:

The operation is in full compliance with Production Practice 1.1; design and construct cyanide production facilities consistent with sound, accepted engineering practices and quality control/quality assurance procedures.

Quality control and quality assurance programs have been implemented during construction of cyanide production and storage facilities. During the past 3 years (since the last audit) the following new plant has been installed:

- Cyanide Finalisation Area renovated;
- New Reactor 301C;
- New Dust Filter; and
- New Sodium Cyanide Solution Tank (under construction).

For each construction item or area a design is initially developed, is then reviewed by the site’s qualified and approved engineers and technologists, before the final design is provided to the Municipality for approval. On completion of construction of the new item or area, a “realisation” document (i.e. an as built document) is produced by the contractor. This document includes all certificates of conformance for installed equipment and details of construction quality. This is reviewed by the Municipality, which is the appropriate authority to sign off the design and construction information and the completed project after inspection.

Each year, since around 2004, an integrated inspection of the facility has been performed under the law of prevention of serious accidents by the local authority. The last three inspection reports (2011, 2012 and 2013) were reviewed and no major non-conformances were identified.

Integrity testing is also performed as required by law (every 5 years) by approved contractors. In 2012, tanks H501 (HCN) and H903A (NaCN solution) were both tested by visual inspection and wall thickness inspection. The testing was performed by ESWT.

During the design and review process for the new equipment installed during the past 3 years the engineers and technologists have identified, agreed and recorded what materials should be used in the construction of specific plant. For equipment involved in cyanide manufacture, materials selected include stainless steel and carbon steel. For cyanide waste water tanks, polyethylene (PE) has been selected and used. During the design process, Draslovka discussed the project with the contractor (Project Soft) to identify the most appropriate materials. The contractor discussed this with tank providers and it was agreed that PE tanks would be effective at holding the cyanide solutions planned for the wastewater treatment plant.

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The hydrogen cyanide and sodium/potassium cyanide production facilities have automatic systems or “interlocks” at critical areas to shut down production systems and prevent releases due to power outages or equipment failures.

Electronic (Supervisory Control and Data Acquisition) controls have been fitted to the manufacturing plant (December 2013) and cyanide waste water treatment plant (January 2013) (i.e. since the previous audit was completed). These allow the production and waste water systems to be automatically shut down in the event of power outages or equipment failures. These systems also aim to prevent releases to the environment.

Technical document 07VTD02 details the procedure adopted in the event of power failure. Any power failure automatically shuts down the hydrogen cyanide and the sodium (and potassium) cyanide production facilities in a failsafe manner with no releases. If the hydrogen cyanide feed stops for any reason, then the alkali cyanide production facility stops automatically. There is also an interlock on the solid cyanide filling line. If any problems arise higher up the system then the filling line is halted to prevent overfilling.

Waste water is treated on site and closely controlled prior to discharge. However, discharges to the river are continuously monitored and should relevant discharge criteria be exceeded then an automatic shut-down valve is actuated and discharges stopped. This is an improvement to the previous audit of the site.

Cyanide is managed on concrete surfaces to minimise seepages to the subsurface. The sodium and potassium cyanide production building is constructed over a concrete sealed surface that, based on visual inspection during the site visit appears to be in good condition. Visual inspections of the surface of the floors across the plant are performed by the production manager and are recorded on a quarterly basis. Records covering the periods 2011, 2012 and 2013 were inspected during the visit.

A new sodium cyanide solution tank has been installed in the existing tank farm during 2013/4 within a concrete lined bund that contain basalt tiles which are resistant to cyanide solutions. The sodium (and potassium) cyanide production plant is located entirely within a containment surface that is constructed of reinforced concrete of 1.2 m in thickness. Tanks are located on raised concrete foundations (around 300 mm thick) within the bunds and the bunds are also lined with basalt tiles that are resistant to cyanide products. The bunds appeared to be in good condition. Sumps within the process plant are lined with a chemical resistant epoxy resin (Naler Epoxid 3011) that continues to be used. The surface of the floor within the temporary storage area used for dry products is also treated with epoxy resin (Naler Epoxid 3011) which is resistant to the materials used within the cyanide plant.

The facility employs methods to prevent the overfilling of cyanide process and storage vessels. Level indicators and high level alarms are fitted to all reaction vessels and storage tanks. According to Czech law storage tanks are only allowed to be filled to 75% of their capacity. The high level alarms are therefore set at this level. SCADA controls have also been fitted to the cyanide manufacturing plant and the cyanide waste water treatment plant in 2013. These controls have automatic indicators of levels in storage and process tanks and also allow filling to stop automatically when the high level is reached. These controls were inspected during the site visit and details provided during discussions with staff. Maintenance and calibration records were reviewed and show that the cyanide plant including level indicators, alarms and automatic shut-offs were included within the maintenance programme.

Secondary containment for process and storage tanks and containers are constructed of materials that provide a competent barrier to leakage and are sized to hold a volume greater than that of the largest tank or container within the containment.

All liquid cyanide storage tanks (which are only allowed to hold 75% of their capacity) are located within a bund containing a 1.2 m thickness of reinforced concrete covered with basalt tiles. Containment under the cyanide manufacturing plants (SO-01 and SO-02) also includes a 1.2 m thickness of reinforced concrete floor. In the temporary dry product storage area, the concrete floor surface is treated with an epoxy resin. In wet areas, drainage lines carry effluent to the waste water treatment plant.



Pipe work transferring liquid cyanide product between the plant and the storage tanks is located over a small area of open ground (< 5m in total length). However, the pipe work between the plant and the storage tanks has a minimum gradient of 1.5% such that liquid in the pipeline drains back to the storage tanks. The pipe work is constructed of two concentric pipes in order to provide suitable containment. The inner pipe which carries the liquid cyanide product is DN50 steel, the outer pipe is DN80 steel. An absorbent insulation layer lies in between the two pipes.

Secondary containment for process and storage tanks and containers is constructed of material (basalt tiles overlying concrete) that is resistant to chemical attack, and is able to provide a barrier to leakage. Containment is sized to hold volumes that are greater than that of the largest tank and any piping drains back to the tank. The facility also operates a spill containment procedure which is set out in the standard operation procedure OS 25-03 (which was last revised on 2 July 2013). For any indication of spillage the automatic effluent discharge stop valve would be closed halting any discharge of water from the site to the river.

Production Practice 1.2: Develop and implement plans and procedures to operate cyanide production facilities in a manner that prevents accidental releases.

in full compliance with

The operation is

in substantial compliance with

Operations Practice 1.2

not in compliance with

Summarise the basis for this Finding/Deficiencies Identified:

The operation is in full compliance with Production Practice 1.2; develop and implement plans and procedures to operate cyanide production facilities in a manner that prevents accidental releases.

Draslovka has an integrated management system that includes quality, environment, safety and responsible care. The system includes organisational procedures (prefixed OS) and developed technical documentation (prefixed VTD), which are available to all employees on the intranet and are included in training to all employees. All of these documents undergo regular review and revision and there is documentary evidence that all of these documents have been revised (at least once) during the past three years.

The facility has procedures for contingencies in the event of any incidents occurring that relate to its activities. The facility has developed specific procedures for non-routine and emergency situations. These include dealing with fire protection management (OS 22-01), an internal emergency response plan (OS 22-02), emergencies and extraordinary activities (OS 24-02) and the water management emergency plan (OS 25-03). Training is provided for these plans and procedures and mock drills have been performed and records of these reviewed by the auditor.

Incidents at the site can be identified in a number of ways including visual identification (high risk areas have CCTV monitoring by the plant operatives and the fire brigade), monitoring of cyanide levels and alarm levels from the continuous hydrogen cyanide gas monitoring system, monitoring and alarm levels from the effluent monitoring system. Should incidents occur then the on-site emergency response team would attend.

A standard procedure describes how production is controlled and planned changes are managed (OS 05-08) and this was updated in March 2014.

Preventative maintenance programs are in place and activities documented for the maintenance of equipment and devices necessary for cyanide production and handling. The majority of the planned preventative maintenance occurs within planned shut-down periods. For the cyanide manufacturing plant this includes 1 two-week period and 2 one-week periods each year. The timing of these shut-down periods is planned in advance and the maintenance manager determines maintenance actions required for each part of the cyanide plants and identifies if and where external support is required. For example during the 2013 shut-down period (from 4 to 18 November 2013), 130 items were identified as requiring maintenance and



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were shown to be completed. For each item that requires some form of maintenance there is a maintenance protocol, which is also used as a work permit. This protocol provides details of the work required and requires a 'sign-on' by staff before the work starts by the manager responsible for that area and the maintenance manager. These managers also sign-off the permit once the work is completed satisfactorily.

Parameters measured include temperature, pressure, product weight, levels in reaction vessels and tanks, and moisture in pipelines. The parameters are observed constantly within the control room by the plant operation team. Control of the cyanide production plants and cyanide waste water treatment plant are now under SCADA control which was installed in 2013. Some analogue measurements are still maintained on certain parts of the facility.

Calibration of monitoring equipment is performed in accordance with the standard procedure (OS 11-01 Calibration, which was last updated on 21 March 2012). There is an on-line calibration table available to all employees on the intranet. This lists all instruments used at the facility, the last calibration date and the date that the next calibration is required. The majority of calibrations are completed during shut-down periods and so are planned when the shut-down periods are identified at the start of each year. Any equipment requiring calibration is calibrated by an external company (the only exception is personal cyanide detectors).

Procedures are in place and being implemented to prevent unauthorized/unregulated discharge of cyanide contaminated water to the environment. The site has a standard procedure (OS 25-03 Water Management Emergency Plan, which was last updated in June 2013) to manage unauthorised or unregulated discharges of contaminated water. The facility is also bound by the conditions of its IPPC permit and this includes the setting of discharge limits for cyanide in water.

The cyanide process plant and liquid cyanide storage areas lie within contained areas. Any cyanide solution or contaminated water that collects in these contained areas enters the drainage system and is directed to the waste water treatment facility. If there is a spillage outside these contained areas an alarm is raised and the surface water shut off valve is immediately closed to prevent any contaminated water/liquid cyanide being released.

The facility has environmentally sound procedures for disposal of cyanide or cyanide-contaminated solids. This facility has a waste management procedure (OS 25-10, which was last updated in October 2011) that sets out the requirements for the management of cyanide wastes. Solid cyanide materials (e.g. sodium cyanide and potassium cyanide) are dissolved on site and then transferred to the waste water treatment plant where they are treated prior to being discharged. Solid materials (e.g. cardboard boxes) that may be contaminated with cyanide are stored in the covered and locked waste compound for hazardous materials (Building V 13). These are then disposed of via an appropriately licensed disposal route using authorised contractor. The waste is collected for treatment by the waste contractor (AVE or PURUM are contractors licensed to collect cyanide waste and used by the site).

Cyanide is stored with adequate ventilation to prevent the build-up of hydrogen cyanide gas, with measures to avoid or minimise the potential for exposure of cyanide to moisture and in a secure area where public access is prohibited. Cyanide is stored temporarily (usually < 2 days) in the finalisation area interim storage area once packaging is completed. The finalisation area interim storage room is located adjacent to the solid cyanide packaging area. The cyanide is then transported to the warehouse for storage until transported off site.

Packaging of cyanide is completed in a manner that prevents release of cyanide:

- 50 kg quantities of cyanide are held in steel drums in which the cyanide is double bagged in polyethylene. A sealed steel lid provides further security.
- 1,000 kg quantities of cyanide are stored in wooden crates, in which the cyanide is double bagged (firstly polyethylene which is thermally sealed in three locations, with an outer polypropylene bag that is tied).



The packaging used is inspected during filling. Gas monitoring has demonstrated that cyanide releases are limited in the packaged goods storage areas, with gas results recorded below threshold values.

Procedures are in place to ensure that the cyanide is packaged as required by the political jurisdictions through which the load will pass. Draslovka has obtained the ADR certificates for packaging and for labelling its solid cyanide in steel drums and in wooden crates. ADR is a United Nations treaty that covers international transport of hazardous goods and has been agreed by 48 countries. The packaging and labelling of the cyanide in accordance with the certificate (and company procedures) allows the transport of cyanide in all jurisdictions required by Draslovka. Training is provided to Draslovka staff by ADR Safety Advisors who are accredited by the Czech Ministry.

Production Practice 1.3: Inspect cyanide production facilities to ensure their integrity and prevent accidental releases.

in full compliance with

The operation is

in substantial compliance with

Operations Practice 1.3

not in compliance with

Summarise the basis for this Finding/Deficiencies Identified:

The operation is in full compliance with Production Practice 1.3; inspect cyanide production facilities to ensure their integrity and prevent accidental releases.

Draslovka conducts routine inspections of the cyanide manufacturing plant in three ways – 6 monthly visual inspection, annual statutory inspection and routine maintenance and inspection testing.

There is a visual check of the integrity of the structures (including tanks, valves, pipelines and containment systems) on a six monthly basis, which is conducted by the Cyanide Plant Manager.

Under Czech law, there is a statutory requirement for inspection and testing of certain equipment. Relevant equipment has to be checked immediately after installation and then after 14 days of operation. Subsequent frequency of inspection is annual although additional (less frequent) tests are required for certain types of equipment. These inspections and tests have to be performed and signed off by authorised (usually external) engineers.

Additional tests include pressure (integrity) testing (required every 9 years) and internal inspections of tanks and reaction vessels (required every 5 years). Examples of this type of inspection were identified for tank H903A sodium cyanide solution tank where visual and tank thickness testing was performed on 12 December 2012 by and authorised external contractor (ESWT) and for tank H501 on 23 March 2012 also by ESWT.

Inspection frequencies are sufficient to assure that equipment is functioning within design parameters.

Draslovka document inspections and specify items to be observed and include the date of the inspection, the name of the inspector, and any observed deficiencies. The nature and date of corrective actions are documented, and records are retained. Visual inspections are documented in books retained within the cyanide manufacturing plants and details evidence of corrosion, leakage or other damage identified. Any issues identified during these inspections (and during day to day operation) are notified to the maintenance team using the maintenance procedure.

All statutory testing records performed by external authorised contractors are held by the Maintenance Manager. To ensure that the facility manages the statutory testing requirements, a plan is drawn up each year by the maintenance department detailing what equipment has to be tested that year. A third form of inspection is the non-statutory inspections carried out during the maintenance shut-down periods each year. Records of the inspection and maintenance carried out are retained by the maintenance manager.



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These records were reviewed during the site visit for 2011, 2012 and 2013. In the November 2013 shut-down period 130 items within the cyanide plant were inspected. The list included reaction vessels, pumps, tanks, pipelines and valves.

Signature of Lead Auditor



PRINCIPLE 2 – WORKER SAFETY

Protect Workers' Health and Safety from Exposure to Cyanide

Production Practice 2.1: Develop and implement procedures to protect plant personnel from exposure to cyanide.

in full compliance with

The operation is

in substantial compliance with

Worker Safety Practice 2.1

not in compliance with

Summarise the basis for this Finding/Deficiencies Identified:

The operation is in full compliance with Production Practice 2.1; develop and implement procedures to protect plant personnel from exposure to cyanide.

Draslovka has developed technical documentation that is available to all employees on the company intranet and includes production of alkali cyanide, solid sodium cyanide, solid potassium cyanide and sodium cyanide solution. These technical documents include details of control systems to limit worker exposure both during normal operations and maintenance activities.

The facility implements procedures to review proposed process and operational changes and modifications for their potential impacts on worker health and safety. Procedure 09-05 Investment Activities Management details change management for changes. These go through an investment committee, which is made up of representatives from the relevant department where the change is to occur; technologists, the safety manager, the environmental manager, the electrical power department, the fire department and other relevant parties identified. This committee will review a document prepared by a group submitting the investment request. The written document must look at environmental and health and safety effects of the investment among other items. Examples of such documents were reviewed by the auditors.

The facility solicits and considers worker input in developing and evaluating health and safety procedures. Process and operational level changes are reviewed by a group of relevant people. This group would develop a written procedure for the revised process or operation and this is provided (by email) to all parties (including all production workers, where it concerns them) for comment within a specific timeframe (usually 2 weeks). The comments are reviewed and the document finalised. Feedback is provided to all parties who provided comment. Feedback can also be provided in safety meetings prior to each new shift or safety training event.

The facility uses monitoring devices to confirm that controls are adequate to limit worker exposure to hydrogen cyanide gas and sodium, calcium or potassium cyanide dust to 4.7 parts per million (5 mg/m³) or less, as cyanide.

The facility uses both fixed and portable monitors that measure hydrogen cyanide gas (HCN) and other harmful gases used at the facility. A site wide monitoring system has been installed both at the site perimeter and within facilities, which is continually monitored internally both in production control rooms and the fire brigade control room and externally as these measurements are also electronically sent to an external authority every 30 minutes. These instruments are calibrated every six months by either the manufacturer or trained on-site personnel.

Draslovka has developed and implemented procedures for working in various areas and performing specific activities across the cyanide plant which it has identified as locations where workers may be exposed to hydrogen cyanide/cyanide. For these areas/activities mandatory personal protective equipment (PPE) requirements are set. During the site inspection, the required PPE was seen to be worn by workers. In addition, workers and visitors within the cyanide plant area have to carry with them a cyanide cartridge and associated respirator in case it is required.



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The facility has a clothing change procedure for employees, contractors and visitors to areas with the potential for cyanide contamination of clothing.

PPE requirements are set out in procedures, OS 24-04 and OS 24-06 Attachment 9, (which sets out PPE and replenishment requirements).

Workers, contractors and visitors working within designated areas of the cyanide plant have to change clothing on entering and leaving that area. No clothing worn inside these designated areas of the plant is allowed to be taken outside and must be left for washing or disposal. Draslovka organises the washing of this clothing with an outside contractor.

Activities identified as high risk (through the risk assessment procedure) require a minimum of two people. These activities are specifically identified in each area and include designated confined spaces or locations where the risk of cyanide exposure may be high and any work in both HCN and cyanide production buildings.

The facility assesses the health of employees to determine their fitness to perform their specified tasks. Draslovka has developed and implemented an operational procedure concerned with health care (OS 23-01 - Health Care). This procedure sets out the responsibilities of the employer and employee with respect to health care. The facility has a health centre staffed by a doctor and nurse. The work at the health centre is general practitioner/occupational rather than for emergency provisions.

Draslovka use warning signs advising workers of the presence of cyanide and indicating, where necessary, that suitable personal protective equipment must be worn. The use of signage at the plant is minimal, but this is compensated for by effective procedures and training policies. The facility has a standard procedure (OS 08-05), which provides examples of the types of signs that are required to be used across the facility. At the time of the site inspections adherence to PPE was of a high standard.

Draslovka has a procedure that states it is forbidden to smoke anywhere at the facility (except in designated areas that are away from cyanide production facilities), eat or drink in the production areas and or to have open flames without a permit.

Production Practice 2.2: Develop and implement plans and procedures for rapid and effective response to cyanide exposure.

in full compliance with

The operation is in substantial compliance with

Worker Safety Practice 2.2

not in compliance with

Summarise the basis for this Finding/Deficiencies Identified:

The operation is in full compliance with Production Practice 2.2; develop and implement plans and procedures for rapid and effective response to cyanide exposure.

The facility has the following written procedures to manage its emergency response:

- Internal Emergency Response Plan. This provides measures for the whole Draslovka facility including all cyanide production in case of accidents and for mitigation of accidents;
- Emergency and Extraordinary Activities. This aims to set a procedure to prevent and deal with emergencies and extraordinary events;
- Water Emergency Plan identifies potential polluting sources of the surface and sub-surface and provides guidelines to deal with such incident; and



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- External Emergency Plan - This plan is produced by the Local Authority and is specific to Draslovka and a neighbouring distillery. The plan details actions to be taken by both Draslovka's emergency response teams and the State emergency response bodies including Kolín's police, the Municipal office in Kolín, the hospital, the ambulance service and the Environmental departments.

A drill involving site and local authorities is undertaken every few years to test this External Emergency Plan. The last such drill was in November 2012 and was undertaken at the ammonia unloading station when unloading ammonia from a railway wagon at Draslovka.

Showers, low-pressure eye wash stations and non-acidic fire extinguishers are located at strategic locations throughout the facility. They are inspected regularly by the safety department. Records are retained and these were reviewed for the last three years.

Water, oxygen, resuscitation equipment, cyanide antidote, and a means of emergency communication and notification are readily available for use in the plant. These were seen and tested where applicable during the site inspection.

First aid equipment is inspected by both the safety department and by the individual managers in each department. Materials Safety Data Sheets are available for the raw materials and products produced at Draslovka and are available on the Draslovka's intranet by all employees

The facility has a procedure OS 08-05 - Piping and Tank Labelling that describes the colour coding of tanks, vessels and pipe work and ensures they are identified to alert workers of their contents and direction of flow.

All employees, contractors and visitors leaving areas after they have worked in locations that may give rise to skin exposure to cyanide have to take a shower and then wear clean clothes.

Draslovka has a medical centre and all employees are provided with first aid management training every 3 years, with a refresher each year that includes administering of amyl nitrite.

For every emergency event the external emergency services are called immediately as a matter of course and the ambulance service will transport any patients to hospital.

The facility has alerted the Nemocnice Kolín hospital of the potential need to treat patients for cyanide exposure and is confident that the facility has adequate, qualified staff, equipment and expertise to respond to cyanide exposed patients. Correspondence between the site and hospital was reviewed.

Mock drills are performed every year. More than 10 drills are performed each year over the whole production site with at least one in each cyanide production area and four at the emergency quick seal valve, and one at each of the other production areas on site that contain hazardous substances and a one or two at other locations. The drills involve both hazardous substance release and cyanide exposure. Drill reports were reviewed for the last 3 years and were found to be comprehensive.

Procedures have been implemented for the investigation and evaluation of cyanide exposure incidents to determine if the facility's programs and procedures protect worker health and safety and response to cyanide exposures are adequate or need revision.

No cyanide related incidents have occurred in the last three years and therefore a review of other incidents was undertaken to ascertain compliance. These reviews were thorough and implemented the procedures outlined above.

Signature of Lead Auditor



PRINCIPLE 3 – MONITORING

Ensure that Process Controls are Protective of the Environment.

Production Practice 3.1: Conduct environmental monitoring to confirm that planned or unplanned releases of cyanide do not result in adverse impacts.

in full compliance with

The operation is

in substantial compliance with

Monitoring Practice 3.1

not in compliance with

Summarise the basis for this Finding/Deficiencies Identified:

The operation is in full compliance with Production Practice 3.1; conduct environmental monitoring to confirm that planned or unplanned releases of cyanide do not result in adverse impacts.

The Draslovka site has a direct discharge to the River Labe (also called the Elbe) on the north east boundary of the site. There is a railway line between the north east boundary of the site and the River Labe. The discharge from the site flows under the railway line and then directly into the river. The discharge includes water from the waste water treatment facility and the surface water drainage system. Water that may contain cyanide or other contaminants is treated through the waste water treatment facility prior to discharge.

The monitoring point for the combined waste water from the drainage system is located on the north eastern boundary of the site before it passes under the railway for subsequent discharge to the River Labe. The discharge to the River Labe is a dedicated discharge point solely for the Draslovka, Kolín facility. Monitoring of the waste water is undertaken at this point by staff from the site every two hours. In addition an aggregated 24 hour sample is taken each day for testing. These two types of samples are tested in the on-site laboratory for cyanide through titration. Additional sampling and testing is undertaken on a monthly basis by an independent accredited laboratory.

The laboratory used for cyanide analysis is UNS, a nationally accredited laboratory (laborař Ā 1066 akreditovaná Českým institute pro akreditaci, o.p.s.). The tests used by the laboratory conform to CSN ISO 6703 – 1 and 2. CSN ISO 6703 -1 is classified as total cyanide by the cyanide Code whilst CSN ISO 6703 - 2 is classified as WAD cyanide by the cyanide Code. The detection limit for these laboratory methods is 0.002 mg/l.

The laboratory results for the water discharged into the river, collected at the on-site discharge location were provided for review for 2011, 2012 and 2013. Annual average total cyanide results are 0.5 mg/l or less and all monthly WAD results for the same time period are less than 0.5 mg/l (range 0.02 to 0.03 mg/l).

The IPPC Permit for the site specifies a total cyanide limit of 1.6 mg/l (above which operations and procedures must be reviewed) and an absolute maximum total cyanide limit of 4 mg/l that must not be exceeded. All monthly measurements during the period 2011 to 2013 (inclusive) have been 0.5 mg/l total cyanide or below.

The River Labe was monitored by the local River Authority, until 2012. All results upstream and downstream of the site's surface water discharge point are less than 0.022 mg/l total cyanide (free cyanide is not measured but free cyanide is a sub-set of total cyanide and so would be equal to or less than 0.022 mg/l). A mixing zone has not been stipulated for the site. The River Authority has ceased monitoring the river discharge and the site has now planned to carry out its own monitoring from 2014.

The site does not have an indirect discharge to surface water with all water leaving the site via the discharge to the River Labe. Contaminated groundwater underneath the site is collected in wells prior to the containment wall at the boundary of the site with the River Labe. The collected groundwater is passed through the on-site waste water treatment plant and so contaminated groundwater does not flow into the River Labe.

Signature of Lead Auditor





There is historic contamination in the groundwater underneath the site, which is due to activities during the Second world War including the destruction of the site during an air raid. In addition poor industry practice during the communist era may have contributed to this contamination. It is also likely that contamination is travelling under the site from historic off site activities. The Regional Authority (Městský Vřad v Kolíně) considers the cyanide from these sources as legacy issues and that Draslovka are not responsible. Furthermore the Regional Authority (Městský Úřad v Kolíně) has installed a groundwater remediation system to manage the contaminated groundwater.

Draslovka has an agreement with the Regional Authority (Městský Vřad v Kolíně) regarding remediation of the historic contamination. It has been stated that remediation is the responsibility of the Regional Authority due to its historic nature. This is detailed in the agreement between the National Property Fund and Lučební závody a.s. (the company that was subsequently split to form Draslovka) dated 3 March 1994. As a consequence of this agreement a remediation system comprising a containment wall at the boundary between the site and the River Labe was constructed and this was completed in December 2012. Draslovka operate the plant on behalf of Regional Authority (Městský Vřad v Kolíně) and pump groundwater from boreholes on site. The abstracted groundwater is passed through the waste water treatment plant along with other cyanide contaminated waste streams.

Draslovka does not have a responsibility to meet the groundwater quality criteria; however, they do operate the groundwater abstraction and treatment system on behalf of the Regional Authority (Městský Vřad v Kolíně). Due to the historic contamination beneath the Site there are no groundwater compliance points relevant to Draslovka.

Groundwater monitoring wells are monitored and results of monitoring wells downgradient of the containment wall are below the limit of 0.05 mg/l total cyanide (for monitoring events in May 2011, May 2012, November 2012, May 2013, November 2013) with the exception of DR304A and B. As indicated above the works is carried out on behalf of Regional Authority (Městský Vřad v Kolíně) who has responsibility for any exceedance.

The facility limits the atmospheric process emissions of hydrogen cyanide gas such that the health of workers and the community are protected. The IPPC permit sets air emission limits of 10 mg/m³ of cyanide and also a 100g/hour limit for specific air emission within the cyanide plant. The 10 mg/m³ limit can be exceeded so long as the 100g/hour limit is not. Cyanide concentrations in air have to be monitored every three years from the locations identified within the IPPC permit. A review of the results for May 2013 indicated that all results were below limits. The results for the suction pump and vacuum pump exceeded 10 mg/m³ but were below the mass release limit of 100g/hour of cyanide.

A site wide monitoring system (for HCN and other gases) has also been installed both at the site perimeter and within facilities that is continually monitored internally both in production control rooms and the fire brigade control room and externally as these measurements are also electronically sent to an external authority every 30 minutes.

The facility uses both fixed and portable monitors that measure hydrogen cyanide gas (HCN) and other harmful gases used at the facility. There are 39 fixed cyanide monitors installed in locations across the site. The detectors are designed to alarm (with alarm levels agreed with the municipality). All these detectors also alarm at the Fire Brigade Control Room. Should these alarms be activated then internal (lower level) and external (higher level) emergency services are automatically called to respond.

The site monitors discharges to surface water as detailed in Production Practice 3.1.1 above. The results from the on-site monitoring, and the monitoring undertaken by the local river authority demonstrates that the discharge from the site is not having an impact on the River Labe.



ICMI RE-CERTIFICATION SUMMARY REPORT

Results for monitoring wells downgradient of the containment wall are all below the limit of 0.05 mg/l total cyanide (for monitoring events in May 2011, May 2012, November 2012, May 2013, November 2013) with the exception of DR304A and B. As indicated above the works is carried out on behalf of Regional Authority (Městský Vřad v Kolíně) who has responsibility for any exceedance.

The River Labe is no longer being monitored by the local River Authority on a monthly basis as was the case previously. However, Draslovka has just commenced (June 2014) this sampling and analysis activity on a monthly basis. The waste water discharge is currently being monitored by Draslovka on a 2 hourly basis and an aggregated 24 hour basis, both of which are analysed on site. UNS, the accredited laboratory, takes and tests waste water samples, prior to being discharged, on a monthly basis.

Groundwater monitoring boreholes are sampled and tested on a six monthly basis on behalf of Regional Authority (Městský Úřad v Kolíně). The internal and external air monitoring sensors monitor atmospheric emissions on a continuous basis. Air emissions requiring monitoring in accordance with the permit are monitored on a 3 yearly basis as required by the permit. Monitoring is conducted at frequencies adequate to characterize the medium being monitored and to identify changes in a timely manner.

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PRINCIPLE 4 – TRAINING

Train Workers and Emergency Response Personnel to Manage Cyanide in a Safe and Environmentally Protective Manner

Production Practice 4.1: Train employees to operate the plant in a manner that minimizes the potential for cyanide exposures and releases.

in full compliance with

The operation is

in substantial compliance with

Training Practice 4.1

not in compliance with

Summarise the basis for this Finding/Deficiencies Identified:

The operation is in full compliance with Production Practice 4.1; train employees to operate the plant in a manner that minimizes the potential for cyanide exposures and releases.

The facility trains workers to understand the hazards of cyanide and refresher training is periodically conducted. The first level of training is provided once an employee has joined the company before allowing them to work with cyanide. This training relates to procedure OS 26-10, Handling of Cyanides. All procedures are on the intranet and available to employees at any time.

Workers are then provided with refresher training annually in the handling and use of cyanide. Records for the past three years were observed on site for the maintenance team. According to the HR Manager, training records are kept on file for individuals during their lifetime of working at the site. In addition, records have to be kept for 10 years minimum. The refresher training includes procedures OS 22-02 Internal Emergency Plan, OS 24-06 Safety Health and Environmental Regulations and OS 25-03 Water Management Emergency Plan.

The employees receive training in the use of PPE before being allowed to work with cyanide as part of the induction training in accordance with procedure OS 24-04 Providing PPE (last updated on 26 February 2013) and procedure OS 26-10, Handling of Cyanides which includes the use of PPE for cyanide areas. Specialist training is also provided for use of filter masks, detection, protective suits for use in hazardous areas (including the cyanide production areas) and Self Contained Breathing Apparatus.

There is also appropriate signage around the Site to indicate the PPE requirements for each area. This information is also provided within OS 24-04 Providing PPE (last updated on 26 February 2013) and procedure OS 26-10, Handling of Cyanides. As noted above training has been provided in these procedures during the past three years.

The facility trains employees to perform their normal production tasks with a minimum of risk to employee health and safety and in a manner that prevents unplanned releases through formal and informal means. The employee is formally trained in health and safety before they are allowed to work with cyanide and this training is refreshed each year. Employees then undergo formal training with the relevant head of department and where necessary external organisations to help them perform their normal production tasks. The details of the training required for each employee is defined by their roles. The training required for each role is defined in OS-18-01 Attachment 3 (Human Resources and Employee Training). This training is detailed in training forms held by the head of each department. Example records of this training were observed in the cyanide production area.

Each year a training plan is developed and includes details of internal and external training. The training plan for 2014 was observed during the site visit. The training plans are then captured at a department level. Induction and periodic training required for all employees is detailed in the training plans.



The HR Manager keeps records of qualifications of external training persons and examples of recent records were seen at the time of the site visit. Internal trainers also have to hold relevant qualifications and details of these qualifications are held on site. The main trainer for health and safety is the Risk Manager who is educated to degree level and has ongoing CPD in safety management. In addition the EHS system manager provides specific chemical training. The EHS system manager has a degree in Chemistry, has ongoing CPD. The Head of Departments for production that provide on the job training have specific chemical training and then every 3 years they have additional health and safety training with the Safety Manager.

The facility does evaluate the effectiveness of cyanide training, which is ascertained through a range of techniques including written and verbal tests and observation of work. At the end of each training event (including those for employees working within cyanide areas) some form of testing is completed. During discussions with the Maintenance and Cyanide Production Managers we were informed that verbal and written tests are carried out. Records of these are held on site within each department and were observed for the past three years.

The maintenance manager indicated that people working in this department would be provided with training in a certain activity. After this training their work would be inspected to ensure it was effective.

The HR Manager also keeps records of the effectiveness of internal and external training and provided details of this during an interview. All training courses are scored and the courses are reviewed each year by the HR Manager.

All employees have a standard annual performance review, which an assessment by the appropriate manager and a self-assessment through a multiple choice on line system. An example of this was observed. In addition there is an annual multiple choice health and safety test for senior managers the proforma that was observed.

Production Practice 4.2: Train employees to respond to cyanide exposures and releases.

in full compliance with

The operation is

in substantial compliance with

Training Practice 4.2

not in compliance with

Summarise the basis for this Finding/Deficiencies Identified:

The operation is in full compliance with Production Practice 4.2; train employees to respond to cyanide exposures and releases.

Before working in areas involving the use of cyanide, employees are provided with training in the Emergency Plan. Training is also provided each year for managing cyanide releases. During an interview with the Cyanide Production Manager, records of such training were observed for the past three years. The training provided includes procedures to be followed in the event of a cyanide release which includes procedures OS 22-02 Internal Emergency Plan and OS 25-03 Water Management Emergency Plan. Production workers have additional training on the 'Release of dangerous chemicals (especially cyanide)', which also includes procedure OS 24-06 Safety, Health and Environmental Regulations. Periodic drills are undertaken to confirm employees understanding of the emergency procedures.

Mock emergency drills are conducted periodically as part of the Emergency Plan evaluation process. Routine drills are undertaken for each high risk department or activity on an annual basis plus four that involve the emergency quick seal valve totalling approximately 9 to 10 drills per year. The schedule for these for 2014 was observed. The drills involve both spill and cyanide exposure scenarios. Mock drill reports were reviewed for 2011 through to 2014.



Employees are trained in how to respond to worker exposure to cyanide. This process starts in induction training which includes first aid training, but follows up with additional training each year, which includes links to the emergency procedures. Procedure OS 22-02 Internal Emergency Plan contains the Trauma Plan in Section 3, which details the first aid measures for people affected by exposure to cyanide. The fire brigade is called for all emergencies. The fire brigade will activate medical assistance. The local ambulance service will also be called for all exposures. Outside office hours the medical assistance is primarily the attendance by the ambulance service. When there is exposure to cyanide there is also evacuation of the required area and this process is also detailed in procedure OS 22-02 Internal Emergency Plan. This procedure was confirmed through an interview with the Cyanide Production Manager.

Interviews with the Risk Manager and the Production Manager confirmed that training can be required where deficiencies during mock drills are identified and a review of every mock drill in the past three years demonstrated that some changes were made as a result of the mock drills.

Procedures are maintained by designated authors. When a change is required a draft is created and sent to all employees. There is then a 14 day review period for comments to be provided back to the author before the procedure is re-issued. Once a procedure is re-issued it is placed on the intranet and an email sent to everyone to inform them of the re-issue.

Training requirements are defined in the Organisation Regulation OS-18-01. For each training event a report is produced (on a standard form) which details the name of the person being trained, department and location, elements of training, training test details and name of trainer. The training records are retained throughout an individual's employment with the company.

Signature of Lead Auditor



PRINCIPLE 5 – EMERGENCY RESPONSE

Protect Communities and the Environment through the Development of Emergency Response Strategies and Capabilities.

Production Practice 5.1: Prepare detailed emergency response plans for potential cyanide releases.

in full compliance with

The operation is

in substantial compliance with

Emergency Response Practice 5.1

not in compliance with

Summarise the basis for this Finding/Deficiencies Identified:

The operation is in full compliance with Production Practice 5.1; prepare detailed emergency response plans for potential cyanide releases.

The facility has developed an Emergency Response Plan to address potential releases of cyanide on site or that may require the facility to respond.

The Emergency Plan OS 22-02 contains a Trauma Plan detailing the first aid actions required, location of first aid kits, antidote administering instructions, availability of the on-site doctor and general first aid instructions. The Emergency Plan includes procedures for assessment and mitigation of releases.

The Internal Emergency Plan contains specific response actions to the release of hydrogen cyanide gas.

Procedure OS 22-02 Internal Emergency Plan contains specific response actions to the release of hydrogen cyanide gas. The actions are to limit the leakage of HCN if it is safe to do so with any liquid HCN being diluted with water and neutralised with caustic soda. The solid cyanide must be disposed of off-site by incineration. Employees must do everything possible to prevent migration of liquid cyanide into the drainage system and described the use of the emergency quick seal valve and drainage shut off valves. Any contaminated soil must be removed and placed in the retention basins for neutralisation and subsequent treatment. The procedure refers to Emergency Response Cards which all buildings have to provide information specific to that building regarding; character of the building, type and maximum quantity of chemicals present within the building, alarm levels, extinguishing substances present within the building, plans showing the location of hydrants, necessary internal and external telephone numbers for emergency services, evacuations plans and other recommendations. The Emergency Response Cards in the sodium and potassium cyanide production building were observed.

The procedure OS 22-02 stipulates that if there is a second or third level alarm, with third level being the most severe, a message will be broadcast over the public address system detailing the nature of the emergency and the necessary actions to be undertaken. For any emergency other than a very minor spill the fire brigade will be contacted and will be in charge of the response. The Shift Leader of the fire brigade is stated in law as being the Commanding Officer in the event of an emergency with all company resources at his disposal. In the event of an emergency the Commanding Officer and Shift Leader will consult with regards to the appropriate course of actions for preventing further leakage. It is stated that "in the interests of a timely identification of the source of exposure all employees will cooperate in checking all possible sources of exposure and on the orders of the Commanding officer or Plant Supervisor will carry out checks on the equipment".

The External Emergency Plan details the actions to be undertaken by the Kolín emergency services and the Regional Authority in the event of a major spill including evacuation of the community surrounding the site.



The Water Emergency Plan details how the person with knowledge of the emergency will talk to the Commanding Officer so that the cause of any situation that may lead to the contamination of surface water or groundwater can be prevented including; securing the emergency quick seal valve, plugging pipe work, pumping residue from tanks, repairing tanks.

Production Practice 5.2: Involve site personnel and stakeholders in the planning process.

in full compliance with

The operation is

in substantial compliance with

Emergency Response Practice 5.2

not in compliance with

Summarise the basis for this Finding/Deficiencies Identified:

The operation is in full compliance with Production Practice 5.2; involve site personnel and stakeholders in the planning process.

The facility has involved the workforce and other stakeholders such as potentially affected communities in the emergency response planning process.

The Internal Emergency Response Plan was created by a third party (Separa eko). In producing the document they involved the fire brigade, Heads of Departments, and employees. When emergency response planning documents are updated they are provided in draft format to all employees for comment before the final draft is produced.

The Regional Authority is made aware of the risks associated with accidental cyanide releases through the production emergency response plans. This allows the Regional Authority as the designated representatives of the local community to review Draslovka's internal emergency procedures and to produce their own emergency plan with regards to how their department and the community will react in the event of such a release.

The facility engages in regular consultation and communication with stakeholders to ensure that the Plan addresses current conditions and risks. Draslovka engages in consultation with the community through the Regional Authority reviewing internal procedures Internal Emergency Response Plan and Water Management Plan. When these procedures are altered the draft versions are provided to all employees so that they can provide comments before the procedures are finalised.

There is also a flow chart in the External Emergency Response Plan that details contact numbers and which services should be contacted by who, the appropriate parts have been integrated into the internal emergency plan.

Production Practice 5.3: Designate appropriate personnel and commit necessary equipment and resources for emergency response.

in full compliance with

The operation is

in substantial compliance with

Emergency Response Practice 5.3

not in compliance with

Summarise the basis for this Finding/Deficiencies Identified:

The operation is in full compliance with Production Practice 5.3; designate appropriate personnel and commit necessary equipment and resources for emergency response.



The Emergency Response Plans detail that the Commanding Officer is in charge of an emergency response. The responsibilities of the Commanding Officer are stated in the national fire regulations. The Commanding Officer for Draslovka is stated as being the Shift Leader of the Fire Brigade who will then co-ordinate all internal parties and any external responders.

The fire brigade have all of the necessary emergency equipment which is detailed in the Internal Emergency response plan this includes fire engines, spill clean-up materials, first aid equipment and gas detection monitors. Members of the Fire Brigade have the same training as the municipal fire service. The Ministry of the Interior provides documented requirements for the training of all fires services on an annual basis. These requirements are then included within the training requirements by Draslovka of the Fire Brigade. The Training requirements for the Fire Brigade in 2014 were observed.

All equipment is checked, inspected and maintained.

The details of outside responders, medical facilities and communities in emergency response procedures are contained within the External Emergency Plan produced by the Regional Authority and the Internal Emergency Response Plan.

The facility has confirmed that outside entities included in the Plan are aware of their involvement and are included as necessary in mock drills or implementation exercises.

If there is a release of cyanide that may impact the local community i.e. the town of Kolín, the fire brigade will inform the town's police and Kolín's fire brigade, who will implement the External Emergency Plan.

Once every three years there is a drill involving all of the relevant external parties.

Production Practice 5.4: Develop procedures for internal and external emergency notification and reporting.

in full compliance with

The operation is in substantial compliance with **Emergency Response Practice 5.5**

not in compliance with

Summarise the basis for this Finding/Deficiencies Identified:

The operation is in full compliance with Production Practice 5.4; develop procedures for internal and external emergency notification and reporting.

The Plan includes procedures and contact information for notifying management, regulatory agencies, outside response providers and medical facilities of the emergency, as appropriate.

The Internal Emergency Plan contains a flow diagram that shows the various parties to be contacted in the event of an emergency together with the contact numbers. In addition the Emergency Response Cards contained in each building detail the procedures to be followed in the event of an emergency. The first response is always to contact the on-site fire brigade. The fire brigade will then inform all of the relevant agencies internally and externally, where required, including the Kolín police station.

The fire brigade, as the first responders and in fulfilling their legal requirement as the Commanding Officer, contacts the appropriate external agencies. This includes the Kolín Police station representatives who coordinate the community response measures. The community response measures are detailed by the in the External Emergency Plan.



ICMI RE-CERTIFICATION SUMMARY REPORT

Production Practice 5.5: Incorporate into response plans and remediation measures monitoring elements that account for the additional hazards of using cyanide treatment chemicals.

in full compliance with

The operation is

in substantial compliance with

Emergency Response Practice 5.2

not in compliance with

Summarise the basis for this Finding/Deficiencies Identified:

The operation is in full compliance with Production Practice 5.5; incorporate into response plans and remediation measures monitoring elements that account for the additional hazards of using cyanide treatment chemicals.

The Plan describes specific, appropriate remediation measures including recovery or neutralization of solutions or solids, decontamination of soils and/or other contaminated media and management and/or disposal of spill clean-up debris and provision of an alternative drinking water supply as appropriate.

Procedure OS 22-02 Internal Emergency Plan contains specific response actions to the release of hydrogen cyanide gas or solid cyanide. The actions are to limit the leakage of HCN if it is safe to do so with any liquid HCN being diluted with water and neutralised with caustic soda. The solidified HCN must be disposed of by contractors by incineration. Employees must do everything possible to prevent migration into the drainage system and any contaminated soil must be removed and place in the retention basins for neutralisation and subsequent treatment.

Procedure OS 25-03 Water Management Emergency Plan also details actions in the case of any contaminants entering the site drainage system. It details the use of the emergency quick seal valve and drainage shut off valves. It also provides details of any remediation that should take place in the event of spills. This includes extraction of contaminated water by the fire brigade and transfer of contaminated water to the retention basins prior to analysis and appropriate treatment.

It is not necessary to designate an alternate drinking water supply due to the distance to the potable water borehole. However, sources of bottled water are available as these are used in many areas of the facility.

The Plan address the potential need for environmental monitoring to identify the extent and effects of a release, and include sampling methodologies, parameters, and where practical, possible locations.

The Plan describes the formation of a Work Management Emergency Response Committee who are appointed to provide a quick and unambiguous response when conducting rescue work in the case of an incident that impacts soil and groundwater. Roles and responsibilities of the committee is described in the Water Management Emergency Plan.

Production Practice 5.6: Periodically evaluate response procedures and capabilities and revise them as needed.

in full compliance with

The operation is

in substantial compliance with

Emergency Response Practice 5.6

not in compliance with

Summarise the basis for this Finding/Deficiencies Identified:

The operation is in full compliance with Production Practice 5.6; periodically evaluate response procedures and capabilities and revise them as needed.

The Plan includes provisions for reviewing and evaluating its adequacy on an established frequency.

Lučební závody Draslovka a.s. Kolín
Name of Facility

Signature of Lead Auditor

21 August 2014
Date



ICMI RE-CERTIFICATION SUMMARY REPORT

There is a legal requirement for the two main elements of the Emergency Response Plan (OS 22-02, OS 25-03) to be reviewed on a five yearly basis or after a 10% change in the amount of hazardous chemicals. Draslovka reviews the internal emergency response plans every year and revises them if required e.g. if changes to the process occur.

The External Emergency Plan is revised every five years and is produced by the Regional Authority with Draslovka reviewing any changes.

Mock emergency drills are conducted periodically as part of the Plan evaluation process.

Routine drills are undertaken for each high risk department or activity on an annual basis plus four that involve the emergency quick seal valve totalling approximately 9 to 10 drills per year. The drills involve both spill and cyanide exposure scenarios. Mock drill reports were reviewed for 2011 through to 2014.

There are provisions to evaluate the Plan after any emergency that required its implementation and for revising it as necessary. There has not been an emergency at the facility since the last ICMI audit in 2010; therefore, no review has taken place directly relating to this reason. But the plan is reviewed annually and updated as required, the most recent version is dated 2014.

Signature of Lead Auditor



Report Signature Page

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