



Chemours™

**ICMI International Cyanide Management Code
Summary Audit Report**

**Chemours North American
Sodium Cyanide
Production & Packaging Operations
Re-Certification Audit**

Submitted to:

**The International Cyanide Management Institute
1400 I Street, NW – Suite 550
Washington, DC 20005
USA**

2019 Audit Cycle



**Management System Solutions, Inc.
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Chemours North American Production & Packaging Operational Summary

Company Names & Contact Information:

Names and locations of Operations Audited:	<p>Chemours Memphis Plant 2571 Fite Road Memphis, TN 38127</p> <p>LSI Facility 5200 Old Millington Road Memphis, TN 38127</p> <p>Chemours Carlin Facility 3 mi. E. of Carlin, Old Hwy 40 Carlin, NV 89822</p>
Name and contact information for Chemours:	<p>Brian Morris Cyanide Business Global Product Stewardship Manager Email: Brian.R.Morris@chemours.com</p>

Operational Overview

The Chemours Company is a chemical manufacturing company that offers a wide range of products and services for diverse markets globally. Solid sodium cyanide for use in the gold mining sector is manufactured at the Memphis, Tennessee plant. The plant is located just outside of Memphis in Woodstock, Tennessee.

Chemours (under the previous company name of DuPont) was one of the original 14 Cyanide Code signatory companies announced on November 3, 2005. As such, Chemours made the commitment to obtain Cyanide Code certification for its Memphis Solid Cyanide Plant and its packaging operations. Chemours was the first Cyanide Producer to achieve certification in June 2006 and has successfully maintained compliance and its International Cyanide Management Code (ICMC) certification since.

This re-certification audit of Chemours and its North American cyanide packaging operations was conducted according to the ICMI certification auditing process that calls for each signatory organization to undergo a third-party re-certification audit every three years.

Chemours NA Production & Packaging
Name of Operation

Nicole Jung
Lead Auditor

November 15, 2019
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Description of the Operations

The Chemours sodium cyanide production operation is just one of several chemical operating units at the Chemours-owned multi-tenant chemical plant. Chemours has been producing sodium cyanide at this location since 1953. The solid sodium cyanide briquettes are packaged at the Memphis Plant, at the LSI Facility directly adjacent to the plant, and at the Chemours packaging facility in Carlin, Nevada, USA. The Memphis facility ships sodium cyanide in bulk and semi-bulk packages.

The LSI facility re-packs the sodium cyanide briquettes for the gold mining sector from rail hopper cars into semi-bulk (bag-in-box intermediate bulk containers). The LSI facility has been in operation since 1994. The LSI facility is owned by Lemm Corporation and is operated by Lemm Services, Inc.

The Chemours Carlin facility is operated by the Lemm Corporation. This operation trans-loads the cyanide briquettes from rail hopper cars into ISO tanks and tank trailers. The Carlin facility also dissolves sodium cyanide in alkaline water to make a nominal 30% sodium cyanide solution. Carlin has been in operation since 1982. The Carlin facility is owned by Chemours and is operated by the Lemm Corporation.

Audit Implementation

The audit was performed at the Chemours Solid Cyanide Plant in Memphis, TN, the adjacent LSI packaging facility in Woodstock, TN, and the Chemours Carlin facility in Carlin, NV. The audit was performed by an independent third-party auditor who was pre-approved by the ICMI as a Lead Auditor for all types of Code audits and as a technical expert for ICMC audits of cyanide production facilities.

Six auditor days were spent on-site. The days were split between the Chemours Memphis Plant, the LSI Memphis operations and the Chemours Carlin Facility. Opening and closing meetings were held at each location. The production and packaging processes and associated areas of the organization were evaluated in accordance with the agreed audit plan. The assessment was based on random samples and therefore nonconformities may exist which have not been identified.

Cyanide handling and management practices at the three locations were evaluated against ICMC requirements, the organizations' procedures and supporting documents. The audit was conducted through discussions and interviews with management, production, and packaging personnel at each of the three operations. Additionally, records were reviewed and observations of current practices were made. Particular focus was paid to the evaluation of records since the last recertification audit in 2016. The auditor used the ICMI "Cyanide Production Verification Protocol" to confirm that records demonstrated continued ICMC compliance since the previous re-certification audit in 2016.

The results of the audit indicated that all three operations continue to be in FULL COMPLIANCE with ICMC requirements.

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Auditor's Finding

Cyanide handling and management practices at the three locations were evaluated against ICMC *Cyanide Production Verification Protocol* requirements, the organizations' procedures and supporting documents. The audit was conducted through discussions and interviews with management, production, and packaging personnel at each of the three operations. Additionally, records were reviewed and observations of current practices were made. Particular focus was paid to the evaluation of records since the last recertification audit in 2016. The auditor used the ICMI "Cyanide Production Verification Protocol" to confirm that records demonstrated continued ICMC compliance since the previous re-certification audit in 2016.

The auditor found that the overall level of preparedness and understanding of ICMC requirements was excellent. Management systems were found to be very mature, personnel demonstrated excellent operational discipline, the facility was very well maintained and organized, and records were readily available for review.

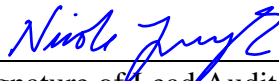
The operation has not experienced any significant cyanide spills or releases since its original certification audit in 2006.

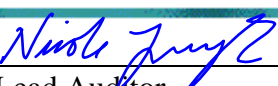
The results of the audit indicated that all three operations continue to be in FULL COMPLIANCE with ICMC requirements.

Audit Company:	MSS Code Certification Service, A Division of Management System Solutions, Inc. www.mss-team.com
Lead / Technical Auditor:	Nicole Jurczyk E-mail: njurczyk@mss-team.com
Date(s) of Audit:	August 6-7 and August 26-29, 2019

I attest that I meet the criteria for knowledge, experience and conflict of interest for Code Certification 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 the audit reports accurately describe the findings of the certification audit. I further attest that the certification audit was conducted in a professional manner in accordance with the International Cyanide Management Code Verification Protocol for Cyanide Production Operations and using standard and accepted practices for health, safety and environmental audits.

Chemours NA Production & Packaging Operations  November 15, 2019
Name of Operation Signature of Lead Auditor Date

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1. OPERATIONS: *Design, construct and operate 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.*

The operation is **in full compliance with Production Practice 1.1**

Summarize the basis for this Finding:

All three facilities were built using sound, accepted engineering practices and quality control processes. Process hazard analysis methods and procedures were used to design and build all three facilities. Chemours QC & QA records audited during the initial certification audit were found at that time to be complete and readily retrievable. Chemours uses a formal management of change (MOC) process to manage all changes to the facility. MOC records from facility changes since the previous ICMC re-certification audit in 2016 were reviewed and were found to be complete. Additionally, records reviewed during this re-certification audit showed that qualified American Petroleum Institute (API) inspectors continue to perform regular inspections and tests of the equipment. Technical specifications for acceptable materials of construction are formally defined and a review of records confirmed that materials conformed to internal requirements.

No substantial facility changes were made at the LSI and Carlin facilities since the previous ICMC audit. In the event there were a change to the facility or process that meets the criteria outlined in the procedure then a full MOC and approval process would be used.

All three facilities are built on concrete and they each have appropriate containment systems that ensure full containment. Interlock systems and high-level alarms are integral parts of the design and construction of each of the facilities. All facilities use management system procedures and forms to inspect their interlocks, process equipment, piping, and containment systems regularly to ensure functionality and integrity.

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

The operation is **in full compliance with Production Practice 1.2**

Summarize the basis for this Finding:

All three operations have detailed procedures, work instructions and checklists that enable them to operate in a safe and environmentally responsible manner. Additionally, robust training programs at the three operations include competency evaluations to ensure that personnel are competent to operate the production and packaging equipment. Operational procedures also detail what steps must be taken in case of an upset condition or emergency.

Appropriate reviews and evaluations are conducted any time changes are made to operations or facilities. The Chemours production operation follows a formal management of change (MOC) process that includes the review and approval of changes from multiple professional experts prior to implementing a change. The same MOC process is applied to any changes made at the Chemours Carlin facility. Any changes made to the facility or operations at the LSI Facility are made after review and approval made by a professional engineer. No facility and significant operational changes have occurred at the LSI facility during the ICMC re-certification period (2017-2019). Through a review of MOC records and the performance of a number of interviews with operators, engineers, and management personnel, the auditor concluded that appropriate management of change methodologies are being used by all three operations.

Each facility has a formal preventive maintenance program in place to ensure that process equipment is properly maintained and that instruments are calibrated. Safety systems designed to protect worker health and the environment such as interlocks, air monitors, and personal cyanide monitors are included in the preventive maintenance programs. Maintenance and calibration records for critical process and safety equipment and instruments were evaluated against internal requirements. Records were found to be complete and where applicable, internal procedures were consistent with manufacturers' recommendations. Additionally, maintenance personnel were interviewed at each facility and were found to be very knowledgeable and competent.

No cyanide-containing water discharges to the environment occur from any of the facilities. The only facility that is near a water body (Loosahatchie River) is the Chemours cyanide production operation. Any water that potentially can come in contact with or derive from the cyanide production area is treated on-site and discharged as a permitted discharge to the local water authority. Cyanide-containing water from the LSI operation is stored on-site and sent to Chemours for processing. Cyanide-containing water from the Carlin operation is pumped into a mix tank where it is mixed with cyanide solution that is then brought into product specification. The water is then sent as product to mines. Confirmation was made through interview and a review of records that appropriate water management practices are being used.

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Procedures exist at all sites for the disposal of cyanide and cyanide-contaminated solids. Procedures include decontamination procedures and hazardous waste handling / management procedures. Qualified waste contractors are used at all three operations to remove hazardous waste from the site.

Ventilation at the three facilities was sufficient to protect against the build-up of HCN gas. The cyanide is kept under roof and dry at all times. Security was found to be acceptable at each of the locations. Access to areas with cyanide is strictly controlled and state-of-the-art security equipment and systems are being used by all three locations.

Chemours controls the labeling and packing specifications for all products shipped from all three locations. Processes exist within the Chemours Corporation to ensure that packaging and labeling are appropriate for the jurisdictions through which the load will pass. Multi-language labels are used when the product will be transported through more than one jurisdiction or through jurisdictions requiring multiple languages.

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

The operation is in full compliance with Production Practice 1.3

Summarize the basis for this Finding:

All three sites have thorough inspection programs to ensure the integrity of process equipment and prevent accidental releases of cyanide. A review of records and results of interviews confirmed that tanks, valves, pipelines, and containments are routinely inspected for their integrity, closure of drains, presence of fluids, and deterioration. Field operators, facility managers, and operators were interviewed and the inspection sheets from field rounds and trench / drain inspections were presented as evidence. Frequencies of inspections were found to be appropriate for the operations. Inspection records indicate the date of inspection, the name of the inspector, and any observed deficiencies. Additionally, API inspections are performed to check for deterioration of process equipment / piping in contact with cyanide solution.

Operators at all sites showed a high level of awareness regarding the importance of performing thorough inspections. Records from all sites indicated that corrective actions are taken in a timely manner in response to deficiencies noted during preventive maintenance and/or daily inspection rounds.

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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.*

The operation is in full compliance with Production Practice 2.1

Summarize the basis for this Finding:

Worker exposure to cyanide is minimized through the use of personal protective equipment (PPE) and through the safe operation of equipment. The minimum PPE requirements are defined in formal procedures at each location. PPE requirements are defined for all types of operations from receipt of material through packaging and shipping. Non-routine and emergency operations at all three sites are performed by trained personnel wearing protective gear that is inspected regularly. Emergency procedures are defined in the site emergency response plans (ERPs) and in emergency shut-down procedures.

All three sites have mature detailed procedures that are used for normal and abnormal operating conditions. The buddy system is implemented throughout each facility and PPE requirements are identified for each type of job. Increased PPE requirements are defined for non-routine operations. Personal conduct and safety rules are similar at each site and employees stated that they respect and adhere to the rules. Work permits and/or standard procedures are used by each of the operations for maintenance activities to ensure that work practices and PPE are appropriate and safe.

A formal management of change (MOC) system is used to manage proposed process and operational changes at all three operations. At Chemours, action items are entered into a database for action tracking. Any changes that may impact worker safety at any of the three operations are reviewed by appropriate personnel to ensure that a thorough safety review is conducted. Additionally, pre-start up safety reviews (PSSRs) are used prior to putting new equipment on-line. Operators and engineers are involved in the MOC process and in the PSSRs. Several samples of action items and MOC reviews from the Chemours operation were evaluated. All records were complete and were well tracked to closure. Changes to processes or operations at the facilities are reviewed for safety by site managers who consult with Chemours industrial hygiene and medical professionals, as necessary and appropriate. No significant process or facility changes have occurred at the LSI or Carlin operations since the previous ICMC audit in 2016.

Operators and Shift Supervisors / Operations Managers are involved in PPE determinations. Safety Meetings are also used to gain participation. Records and interviews from each facility confirmed that employees are involved in evaluating safety procedures.

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Fixed point cyanide detectors and personal cyanide detectors are used by the Chemours production operation to monitor cyanide concentrations to ensure that they are below 4.7 ppm. Procedures require that field operators have personal monitors and production and warehouse area visitors have at least one person in each group who has a monitor with them.

At the Carlin facility, stationary cyanide detectors and personal cyanide detectors are used to monitor cyanide concentrations to ensure that they are below 4.7 ppm. The LSI facility uses personnel cyanide detectors to ensure that concentrations are below 4.7 ppm. All hydrogen cyanide equipment at each location is calibrated according to manufactures' recommendations. This was confirmed through a review of procedures, owner's manuals, and calibration records.

Chemours production operations where cyanide exposure may be elevated have undergone occupational health testing and have been found to have acceptable air quality with lower cyanide concentrations than is protective of worker health. Nonetheless, the production area and warehouse are assumed to be areas with the potential for elevated concentrations of cyanide. PPE is therefore required for all production and warehouse areas, and additional PPE is required for non-routine activities or for jobs in which there is a splash hazard. Procedures (e.g., for line breaks) were reviewed and this was confirmed. Occupational health monitoring has also been done at the Carlin and LSI operations. Industrial health studies were reviewed for each site during this and previous audits. Although there are no specific areas where elevated cyanide concentrations are always present, PPE (including the use of HCN monitors) is required for all warehouse and packaging work areas, and additional PPE is required for wet or dusty tasks.

Practices designed to protect workers at all three locations include the use of the buddy system, regular health assessments, and formally defined change of clothing policies. Eating, drinking, and smoking restrictions existed at all sites. Open flames are prohibited in areas that have flammable materials (such as HCN) and in electrically classified areas. Areas with cyanide have strict access control and posted PPE requirements. Strict adherence to worker safety practices is monitored by management. Employees at each location were interviewed and showed very good awareness and understanding of these practices.

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

The operation is **in full compliance with Production Practice 2.2**

Summarize the basis for this Finding:

All three locations have detailed emergency plans and procedures available for use during a cyanide exposure incident. Commercially supplied combination shower / low-pressure eye wash stations and non-acidic fire extinguishers are located strategically at each site. Each location also has a program for inspecting the equipment regularly. All three locations have water, oxygen, resuscitators, antidote, and a means of communication readily available. Each site manages its amyl nitrite medicines appropriately to ensure that they do not go out of date. All three locations appropriately maintain their equipment and their medicines to ensure their availability during an emergency. Recent records of equipment inspections were reviewed at all sites. All three locations have an English-speaking workforce. MSDSs were available at each of the site. Operator awareness was confirmed and several MSDSs were sampled at each location. Piping at all three locations was appropriately identified and showed the direction of flow. Storage tanks and process tanks were appropriately identified and were marked as having cyanide, process water, or process solution. Since the all the operations are dedicated cyanide operations, this practice was deemed to be acceptable.

Each facility has a decontamination area and a policy. Medical professionals are on-site at the Chemours production operation. The Carlin and LSI operations have personnel who have been trained in first aid, CPR, and in responding to cyanide exposure emergencies. In case of a cyanide exposure event requiring the transport of a person to a hospital, the procedures for all sites were to decontaminate the workers, call 911 and wait for ambulance transport. Procedures also define the need to send an amyl nitrite medical kit with the ambulance.

Interviews confirmed that antidote gets sent with the ambulance driver in cases of cyanide exposure. Hospitals near each of the facilities have been contacted and cyanide safety training is provided by Chemours on a recurring basis, as appropriate. Each site conducts mock emergency drills, holds a drill critique, and evaluates the need for further training or adjustment to the emergency procedures. Records were reviewed and the auditor confirmed that each site is holding an emergency drill each year, and often several times per year. Evaluations were available and were reviewed. Each site has procedures for investigating emergency incidents after the event.

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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.*

The operation is **in full compliance with Production Practice 3.1**

Summarize the basis for this Finding:

There are no direct or indirect discharges of process water to surface water from any of the facilities. All process water from the Chemours cyanide operation at the Memphis plant is treated to meet applicable standards and is discharged to the municipal sewer system. Process waters and effluent from the LSI and Carlin facilities are put into storage vessels and either sent to the Memphis Plant for treatment (LSI) or mixed into cyanide solution and sent off as product after appropriate mixing and processing have taken place.

Groundwater monitoring is done at the Chemours production operation. The Chemours Carlin operation is not required to perform groundwater testing and there have been no release events to suggest that this is necessary. This was accepted by the auditor.

At the Chemours Memphis Plant, WAD (Weak Acid Dissociable) cyanide levels in groundwater ranged from below detection levels to insignificant amounts that were determined to be under action levels.

The LSI facility was built on a lined engineered surface, has no cyanide solution, and has never had a spill event. No groundwater sampling is therefore done at this facility. This was found to be acceptable by the auditor.

Air monitoring data for the Chemours production operation reviewed during the audit confirmed that HCN air emissions are well within permitted levels. The air emissions for the Carlin and LSI operations are calculated levels based on throughput of the facilities. A review of records for the re-certification period showed that both facilities are well under permitted air emissions levels. The frequencies of monitoring and calculations were found to be appropriate for each of the sites.

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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.*

The operation is **in full compliance with Production Practice 4.1**

Summarize the basis for this Finding:

Formal training and refresher training is given to employees at each site. Training includes watching a professionally produced training DVD, a review of Standard Operating Procedures, hands-on training sessions, formal testing, and witnessing. Employees are given refresher training at established frequencies. Training is given by highly qualified personnel at each location who have personal experience with safe cyanide management practices.

Training records were available at all three locations to demonstrate adherence to internal requirements. A sample of training records confirmed that training needs were identified for all employees and tasks and that employees were appropriately trained on operational, safety, and PPE requirements prior to working with cyanide. The correct use of PPE is one of the many topics included in the training programs. Training effectiveness was judged at each site via testing or skill demonstrations.

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

The operation is **in full compliance with Production Practice 4.2**

Summarize the basis for this Finding:

Employees at all sites are trained on emergency response procedures, including the response to a cyanide leak or exposure. Refresher training is given at defined frequencies. Records from the recertification period (2017-2019) were sufficiently detailed to demonstrate conformance. Interviews confirmed that employees understand and are aware of the emergency response procedures.

Additionally, employees participate in regular emergency drills including “man down” drills which simulate a cyanide exposure event. Drill critiques are conducted after each drill to determine if additional training is required. Detailed training records are retained by each site. Records are maintained for at least as long as the employee is working at the site. A sampling of training records from 2017-2019 showed that training record retention requirements are being fulfilled. Records pertaining to cyanide safety were sufficiently detailed to be found conformant.

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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.*

The operation is **in full compliance with Production Practice 5.1**

Summarize the basis for this Finding:

The Emergency Response Plans from each site were reviewed. They were found to be appropriately detailed and up-to-date. All necessary types of emergencies are addressed by the plans and the steps to be taken for on-site and off-site notifications are clear. The roles and responsibilities of the response personnel are well defined. Specific details are included in the emergency plans to address the necessary steps to be taken in order to mitigate environmental impact and protect worker safety. A detailed review of the Emergency Response Plan from each site confirmed that all ICMC requirements identified in the Production Protocol are fulfilled.


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

The operation is **in full compliance with Production Practice 5.2**

Summarize the basis for this Finding:

Site personnel at each location are involved in the emergency planning process. Chemours leads the efforts to interface with local response agencies for all three locations. The local fire department and EMTs are invited to the drills each year, although in recent years the local authorities have generally declined these invitations. Chemours maintains contact with the Memphis / Shelby County Emergency Response organization.

Efforts have been made to outreach to the Memphis and Carlin communities through interactions with the Local Emergency Planning Committee (LEPC) in each location. Records were available for review and interviews confirmed this information. Chemours has also performed outreach activities for medical facilities and outside responders in the Memphis and Carlin areas during the re-certification period as part of its product stewardship program.

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

The operation is **in full compliance with Production Practice 5.3**

Summarize the basis for this Finding:

Each site clearly designates full responsibility and authority for managing an emergency situation. Alternate coordinators are also identified in the ERPs. The emergency responders are identified at each site. They receive appropriate training, respirator fit tests, and participate in regular meetings and/or drills. Records of training were sampled and were found to be acceptable. The Chemours emergency plan is very detailed regarding the titles, responsibilities, and call-out procedures to be used during an emergency. The ERP lists the emergency equipment that needs to be on-site and the equipment is inspected regularly. The ERPs for the Carlin and LSI facilities were found to be appropriately detailed for the complexity of the operations. Each ERP has identified the emergency equipment necessary and has a checklist for inspecting the emergency and medical equipment.

The emergency response plans for each site clearly designate roles & responsibilities, call-out procedures, and list current phone numbers. Appropriate emergency response equipment was available at each site. Equipment located in appropriate areas was observed during the audit of each location and inspection records from each location were sampled. Each site had at least three emergency response drills, including at least one human exposure drill during the re-certification period.

Each Site has involved outside responders including fire and EMT responders in their emergency drills in the past and emergency responders are aware of their involvement in emergency response involving cyanide. Although the goal is to include emergency responders in drills each year, this has become increasingly difficult as local responders decline to participate in company drills more and more each year. Nonetheless, records were available for the re-certification period that each site has invited local responders to drills and that each site has engaged local emergency responders through the local LEPC groups, local hospitals, and fire departments. Records and interviews demonstrated that sufficient outreach activity had been done in the Memphis and Carlin areas to demonstrate conformance with this ICMC practice.

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

The operation is in full compliance with Production Practice 5.4

Summarize the basis for this Finding:

Each site's ERP had a detailed list of internal and external stakeholders that need to be notified depending on the nature of the emergency. Procedures are in place to ensure that timely communications and notifications are made in the event of an emergency. Each ERP also includes procedures and contact information for notifying potentially affected communities of the incident and/or response measures and for communication with the media.

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 operation is in full compliance with Production Practice 5.5

Summarize the basis for this Finding:

Chemours maintains detailed procedures for the neutralization and decontamination of solids and contaminated debris. Additional details regarding the remediation, neutralization, decontamination, and disposal of clean-up debris are contained within the Chemours Global Emergency Response Procedures. Extensive descriptions of necessary action steps depending on the incident scenario are clearly outlined in the procedures. A professional remediation firm would be engaged if there were a significant spill.

Information includes details such as what treatment chemicals are used and how the treatment chemicals are to be prepared to the appropriate concentrations. The final concentration that will be allowed in residual soil as evidence that the release has been completely cleaned up would be determined in collaboration with State authorities in the event of a release.

Both the Carlin and LSI operations have adopted the Chemours detailed neutralization and decontamination procedures into their own procedures. Chemours would be consulted in the event of any remediation needs. A professional remediation firm would be engaged if there were a significant spill.

Each site emergency response procedures prohibit the use of treatment chemicals such as sodium hypochlorite, ferrous sulfate and hydrogen peroxide if cyanide spills into surface waters.

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Interviews with Chemours, LSI, and Carlin personnel during this and previous ICMC audits showed a high level of awareness that the use of treatment chemicals is prohibited if cyanide spills into surface waters.

Personnel at each site confirmed that environmental monitoring needs would be determined together with Chemours subject matter experts and authorities. Past ICMC audits of Chemours have confirmed that the Cyanides Business within Chemours has appropriate procedures and skill sets to manage the potential need for environmental monitoring.

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

The operation is in full compliance with Production Practice 5.6

Summarize the basis for this Finding:

Procedures at each site require the evaluation, and updating, as necessary, of emergency response plans after emergencies and/or drills. Each site reviews the adequacy of its ERP regularly and conducts drills multiple times each re-certification period, generally at least each year. Drill critiques are conducted with those who were involved. Action items for revisions to the plan are identified, as necessary, and tracked to closure. Records were reviewed for drills that were held between 2017 and 2019. Records were available to show that action items identified during the critique process were tracked to closure. All three sites were found to be in compliance with ICMC requirements regarding emergency drills and the updating of emergency plans.

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