



**UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 10**

1200 Sixth Avenue, Suite 155
Seattle, WA 98101

ENFORCEMENT &
COMPLIANCE ASSURANCE
DIVISION

**Clean Air Act - Section 112(r)
Risk Management Program
and EPCRA 312 – Tier II
Facility Inspection Report**

FACILITY INFORMATION:

Name: CHS Inc. - Walla Walla
Physical Address: 111 9th Street, Walla Walla WA 99362
Phone Number: 5093864532
Latitude/Longitude: 46.064683/ -118.350638
RMP Facility ID#: 1000 0005 8616
FRS ID#: 110070725918
EJ Concerns: Yes (96%)

CONTACT INFORMATION (RMP Implementation):

Name: Dan Andersen, EHS Director
Phone Number: (509) 525-6690
E-mail: co.compliance@chsinc.com

EMERGENCY CONTACT INFORMATION:

Name: Richard Beckman
Phone (24-hr): 509-629-1552
E-mail: richard.beckman@chsinc.com
Website: <https://www.chsinc.com/>

TRIP DETAILS:

Inspection Date: May 18, 2023
Inspection Time: 09:00 through 12:00
Inspectors: Terry Garcia, US EPA Region 10 SEE Grantee, Lead RMP Inspector
Peter Phillips, US EPA Region 10 SEE Grantee, RMP Inspector
Edward Johannes, US EPA Region 10 SEE Grantee, RMP Inspector

DATE AND PROGRAM LEVELS OF SUBMITTED RMP:

Initial Submission Date: June 16, 2009
Date of Latest Update: August 2, 2021

Process (Program 1, 2, 3) as reported in RMP:

Process ID	Description	Process Chemical ID	NAICS Code	Program Level	Chemical Name CAS Number	Quantity (lbs)
1000118050	NH3 reacting to Aqua Amm.	1000147633	325314	3	Ammonia (conc 20% or greater)	137,782
1000118050	NH3 reacting to Aqua Amm.	1000147634	325314	3	Ammonia, Anhydrous (7664-41-7)	678,000

PURPOSE:

The purpose of this inspection was to determine whether this facility is in compliance with Section 112(r) of the Clean Air Act and Title 40 Code of Federal Regulations (CFR) Part 68, Chemical Accident Prevention Provisions.

- The facility has been previously inspected in the past 5 years: No ☒ Yes ☐
If Yes, Date of Last Inspection:
- The facility is High Risk: No ☒ Yes ☐
- Joint EPCRA inspection: No ☐ Yes ☒

CAA TITLE V AIR PERMIT:

Does the facility have a CAA Title V Permit? No ☒ Yes ☐
If Yes, Permit Number

RELEASE/ACCIDENT HISTORY:

Did the facility have a reportable release in the past 5 years? No ☒ Yes ☐
If Yes, Date and Description of the Release:

EPCRA TIER II REPORTING:

Did the facility submit the 2022 Tier II report to the SERC? No ☐ Yes ☒
If Yes, Date the Tier II was submitted: 2/27/2023
If No, calendar year of the most recent Tier II:

Did the facility submit a Tier II to the LEPC and local fire department? No ☐ Yes ☒
If Yes, Date the Tier II was submitted: 2/27/2023. Facility provided email verification from City of Walla Walla Fire Chief Ed Knowles that the Tier II was received.

INSPECTION ENTRY:

Terry Garcia led the inspection entry. The inspection team met with CHS, Inc., facility representatives: Salvador Esquivel, Richard Beckman, Harold Loomis, Nick Broemeling, and Mary Blel, Corporate CHS Environmental Manager at the CHS Inc. - Walla Walla facility in Walla Walla, WA. The team arrived at the facility at 09:00 and was joined by the following facility personnel:

Name	Title
Mary Blel	CHS Environmental Manager, Corporate Legal and Compliance
Salvador Esquivel	Operations Supervisor
Richard Beckman	Plant Manager
Nick Broemeling	Safety Leader
Harold Loomis	Agronomy Operations Manager

Was a state/county/or local emergency representative present? No ☐ Yes ☒

If Yes, Name and Title of Representative: Nick Broemeling is facility Safety Leader and LEPC/Fire representative for the county areas.

The facility is a first responder: No ☒ Yes ☐

If No, Responding Agency

The inspection team was escorted to a conference room located in the facility's modular office trailer/complex a few yards away from the office building. Introductions were made by Terry Garcia, who provided a summary of the risk management program (RMP) and explained the purpose of the visit. Each team member presented his/her credentials.

EPA then requested an explanation of the facility's operations and any additional safety measures that should be taken during the site tour. Richard Beckman and Salvador Esquivel gave a brief description of the facility, operations, and [PPE] personal protective equipment required for the tour. High visibility vests, safety shoes and safety eyewear were worn by EPA Inspectors worn around the covered process areas.

Prior to the inspection, EPA sent a certified notice of inspection letter to the facility informing them of the CAA Section 112(r)(6)(L) requirement that facility employees and employee representatives (such as a union representative) have the right to participate in the RMP inspection, and that a copy of the letter must be provided to the employee representative(s) and the letter posted in a manner accessible to employees in the facility.

The facility is unionized: No ☒ Yes ☐

If Yes, Name of Union

An employee representative present during the facility visit: No ☒ Yes ☐

If Yes, Name/Title

GENERAL INFORMATION:

The CHS, Inc. Walla Walla Retail facility is regulated under the RMP as Program Level 3 process for anhydrous ammonia and aqua ammonia storage (concentration 20%). The facility has been in operation since the 1960s. The primary purpose of the facility is the storage and distribution of anhydrous ammonia and aqua ammonia to farmers as an agricultural fertilizer. The facility reported in their August 2, 2021, RMP an anhydrous ammonia inventory of 678,000 pounds. (exceeds the threshold quantity of 10,000 pounds) and aqua ammonia (concentration 20%) of 137,782 pounds.

The facility has a 18,000 gallon pressure vessel and a 30,000 gallon pressure vessel onsite to store anhydrous ammonia. The 18,000 gallon storage pressure vessel is used to deliver anhydrous ammonia to the farmers. The 30,000 gallon storage pressure vessel supplies anhydrous ammonia to the stationary converter to convert anhydrous ammonia with water to manufacture the aqua ammonia (concentration 20%). Three 30,000 gallon vertical above ground storage tanks located in secondary containment store the aqua ammonia (concentration 20%) onsite. Delivery trucks each with two 1,000 gallon nurse tanks operated by CHS Inc. employees deliver anhydrous ammonia to farmers.

The facility produces aqua ammonia (concentration 20%) in the spring and fall. During the spring months the facility is producing aqua ammonia (concentration 20%) two times per week, for approximately six weeks, 4 hours per day. In the fall, using the same frequency, the facility produces aqua ammonia (concentration 20%) up to 10 weeks. The total amount of aqua ammonia (concentration

20%) produced in calendar year 2022 was 85,600 gallons (or 6.5 million pounds). The facility main ammonia supplier is Agrium (now called Nutrien), a Canadian fertilizer company based in Saskatoon, Saskatchewan. The facility also receives small deliveries of ammonia from CF Industries in Kennewick WA.

The facility is staffed Monday - Friday 6 a.m. to 9 p.m. There are 18 full-time employees on site including eleven (11) operators. Saturdays are seasonal hours depending on farmers customer needs. The facility is not secured by a perimeter fence and is adjacent to a gas station, also owned and maintained by CHS Inc.

The facility is not a first responder and defers to the Walla Walla local Fire department in the event of an anhydrous ammonia release.

ON-SITE OBSERVATIONS:

The facility tour was conducted from approximately 09:45 to 12:30. The inspection team was escorted by Plant Manager, Richard Beckman, Salvador Esquivel, Harold Loomis, Nick Broemeling, and corporate representative, Mary Blel.

EPA inspection team observed the anhydrous ammonia storage tanks (pressure vessels) on the south side of the lot, anhydrous ammonia loading station to storage tanks, aqua ammonia storage tanks, aqua ammonia stationary converter, aqua ammonia unloading station, pressure relief valves, piping, hoses, the emergency shut off valves (internal emergency safety valves installed in 2017). An underground pipe was changed in 2017 to above-ground piping protected by concrete channel securing the pipe that leads from pressure vessel to aqua ammonia converter (photo 15). Three (3) emergency shower/eyewash stations were observed throughout the facility at various process areas. A windsock was observed at the Tank Farm and Aqua Ammonia area (photo 19).

An overview of the EPCRA chemicals stored at the site were observed and photographed (photo 1 and 19). The facility's 2022 Tier II report was also reviewed.

Anhydrous Ammonia Storage Vessels and Loading/Unloading Stations:

The 18,000 gallon pressure vessel and 30,000 gallon pressure vessel are mounted on concrete saddles (approximately 5 ft. high) off the ground and protected all around with concrete posts and metal rail guards for safety (photos 2, 3 and 5). The anhydrous ammonia product label and NFPA 704 Hazard Identifier Hazard label placards were visible on the pressure vessels (photo 2 and 5). ASME nameplates and pressure gauges were visible on pressure vessels (photo 27). The main shutoff valves for pressure vessels were locked. The 18,000 gallon pressure vessel has two dual pressure relief valves (PRV) with two-way manifold on top of the pressure vessel (photo 5).

The vapor recovery system was built around 1996 and is designed to pull ammonia vapors from the DOT Tankers being loaded. The vapor line is piped to the scrubber tank that supplies water to the converter. The ammonia vapors are absorbed into the water that is ultimately used in the conversion of anhydrous ammonia to aqueous ammonia. Delivery trucks are filled with ammonia at the two load-out stations located on the north and south side of the 18,000 gallon pressure vessel. Nitrogen cylinder used for emergency shut off was observed (photo 13). The ammonia load-in station is located on the northeast end of the 18,000 gallon pressure vessel and ammonia load-in operating procedures (hard copy) were observed (photo 4). The delivery truck driver supplies the transfer hoses to connect to the bulkhead that connects at the load-in station. Piping is painted orange for liquid and yellow for vapor on the 18,000 gallon pressure vessel (photo 5). Valves are locked at the bulkhead connections for the transfer hoses of the 18,000 gallon pressure vessel (photo 5). Ammonia transfer hose inside of locked

hose cabinet with expiration date of 2027 (photo 6). The liquid ammonia pump is located at the northeast end of the 18,000 gallon pressure vessel (photo 8). An emergency shutoff pull cable and ammonia pump start/stop button are located at the northeast end of the 18,000 gallon pressure vessel (photo 10). Grounding cable is located at the southwest end of the 18,000 gallon pressure vessel was noted. Emergency shutoff valves (ESV) installed in 2017 is a redundant safety feature along with the excess flow valves on equipment. The ESV and snappy joes were observed on the 30,000 gallon pressure vessel (photo 9 and 10). Emergency shutoff switches were observed throughout the site (Photo 11 shows 1 of 3). Operators and drivers carry remote ESV FOB to close emergency shutoff valves during an emergency. Operator Lead carries a remote ESV FOB to demonstrate during the tour (photo 12). Hand-held ammonia detector displayed ammonia PPM levels of 2 ppm at the time of the tour (photo 14).

The 30,000 gallon pressure vessel has two dual pressure relief valves (PRV) with a two-way manifold on top (photo 3 shows 30K vessel). Pneumatic emergency shut off valves are activated by emergency shut down button(s) around the storage facility. They are equipped with pneumatic cylinders and when pressurized, the pneumatic cylinder piston rod disengages from a striker plate, allowing the ESV to be manually opened and the striker plate to act as a latch and hold the valve open. Release of the control system pressure for any reason closes the ESV for fail-safe operation.

Three separate emergency shower/eyewash stations and vehicle barriers are located throughout the site (photo 26). Vehicular Barriers are located at each pressure vessel to prevent damage by trucks during loading/unloading of ammonia. Wheel chocks were observed at each pressure vessel. Personal protection equipment (PPE) storage boxes (black) are located at each end of the 30,000 gallon pressure vessel load stations for operators (photo 25).

Anhydrous ammonia flows from the 30,000 gallon pressure vessel through an above-ground pipe, that was installed in 2017 to the aqua ammonia converter to produce ammonia (20% concentration) in water solution (photo 15).

The standard operating procedures (SOP) for ammonia load-in for anhydrous ammonia and unloading at aqua ammonia converter were observed (photo 28). The SOP placard (photo 4) at ammonia load-in taped to concrete saddle was weathered and unreadable. The SOPs are also available to operators and drivers at main office.

Aqua Ammonia Converter and Storage Tank Area:

A concrete spill containment area surrounds the entire tank farm including the three aqua ammonia storage tanks and aqua ammonia converter located north of the ammonia pressure vessels (photo 1). The aqua ammonia converter is manufactured by Barnard & Leas Manufacturing Co., Inc., based in Cedar Rapids, Iowa. Labeling on the aqua ammonia converter control panel is visible (photo 16). Anhydrous ammonia flows from the underground pipe (orange) to the aqua ammonia converter and mixes with water in a manifold to produce ammonia (20% concentration) in water solution. The aqua ammonia (20% concentration) at 140 °F flows through the cooling tower to remove heat before being pumped to the aqua ammonia storage tanks at 85 °F. Piping (white) interconnects all three aqua ammonia storage tanks. Above ground piping is protected by metal rail guard and is set within a metal frame (photo 15). In March of 2017, CHS facility removed the underground piping that goes from one of the storage tanks to the aqua ammonia converter. A below-grade concrete trench was constructed, and new piping was placed in this trench by CHS. The trench has metal covers that can be removed for

visual inspection of the piping. The trench system provides a higher level of safety for the covered process as it minimizes corrosion concerns related to buried piping provide improved pipe inspection access.

Valves for piping (white) are locked. The piping (white) is labeled to identify the aqua ammonia and flow direction. The Aqua Ammonia product label, NFPA 704 Hazard Identifier, and tank storage capacity (30,295 gal.) placards were visible on the storage tanks (photo 20 and 21).

Emergency shutdown for the aqua ammonia converter can be done by the operator in the following ways: (1) Using the manual control valves and pump controls, (2) Main electrical shut-down panel in the electrical room and (3) ESV FOB (worn by operators when around the regulated process areas) to remotely shutdown system for any upset or in an emergency. Transfer hoses are changed per manufacturers recommendations, or every 10 years or sooner if warranted. Daily safety rounds are made throughout the site and documented. Transfer hoses are visually checked with each use at load-in and load-out and current hoses were observed with an expiration date stamp of 2027 (photo 6). Piping (black) interconnects all storage tanks to supply aqua ammonia at the load-out station. Valves are locked connecting the storage tanks to piping.

Aqua Ammonia Loading Station and Converter:

The aqua ammonia load-out station is located on the south side of the tank farm (photo 23). An above ground ammonia pipe from pressure vessel to aqua ammonia converter that was changed from underground to above ground installed in 2017 was observed (photo 15). Vapor recovery system for aqua ammonia offloading station was observed (photo 24). The hydrometer equipment meters test the nitrogen concentration while converting aqua ammonia. The bypass valve on the scrubber tank is a two inch water valve used to bypass from the pump supplying water to the converter.

The start/stop control buttons for the aqua ammonia pump in the tank farm were observed (photo 21 - 24). Gloves and goggles for the driver/operators are stored in a box at the load-out station (photo 25). Emergency shower/eyewash station and vehicular barrier observed at 30,000 gallon tank (Photo 26).

Photographs were taken of the anhydrous ammonia and aqua ammonia (concentration 20%) processes. The photographs that were taken at the facility are included in Attachment A to this report. Block flow diagram of the systems regulated process below:

After touring the RMP-covered process areas at the CHS Walla Walla facility, the inspection team returned to the modular office trailer area to review the RMP and EPCRA documentation. Upon completion of the document review, EPA provided a debriefing to all facility personnel present at the opening meeting.

INFORMATION COLLECTED FROM FACILITY:

1. CHS Inc., Walla Walla Site Plan
2. CHS Inc., Walla Walla Block Flow Diagram [Stationary Storage out to Nurse Tanks]
3. CHS Inc., Walla Walla Block Flow Diagram [Stationary Storage out to Aqua Converter/Aqua Tanks]
4. Tier II email verification from Walla Walla Fire Chief Mr. Fred (John) Knowles to Facility.

AREAS OF CONCERNS ADDRESSED IN CLOSING CONFERENCE:

1. Contractors: CHS Inc. was unable to provide documentation to show that when selecting contractors, that they obtain and evaluate information regarding the contract owner or operator's safety performance and programs. [68.87(b)(1)]. The CHS Inc. contractors are Hayes Electric and Gary Moser Tank inspector.
2. Contractors: CHS Inc. did not periodically evaluate the performance of the contract owner or operator in fulfilling their obligations. [68.87(b)(5)]. The CHS Inc. contractors are Hayes Electric and Gary Moser Tank inspector.

DOCUMENTS REQUESTED NOT INCLUDED IN REPORT:

The following documents were requested during the inspection but are not included in this report. These documents will still be reviewed to determine compliance with Section 112(r) of the Clean Air Act.

1. Documentation for fire dept. exercises and walk-throughs to verify coordination.

INSPECTION REPORT CERTIFICATION:

This is to certify that I, Terry Garcia, was the lead inspector at this facility and that I have verified the accuracy of the observations in this inspection report:

Terry Garcia Digitally signed by Terry Garcia
Inspector Signature Date: 2023.09.29 13:05:16
-07'00'

JAVIER MORALES Digitally signed by JAVIER MORALES
Date: 2023.10.02 09:03:19 -07'00'

RMP Coordinator/Approval

ERIN WILLIAMS Digitally signed by ERIN WILLIAMS
Date: 2023.10.11 11:50:39 -07'00'

EPCRA Coordinator/Approval

**MATTHEW
QUARTERMAN** Digitally signed by MATTHEW
QUARTERMAN
Date: 2023.10.13 15:32:57 -07'00'

Land Enforcement Section Chief/Approval

Attachment A – Photo Log

Site Name: CHS Inc. - Walla Walla

City, State: Walla Walla, Washington

Photographer: Peter Phillips

Photo	Date	Time	Description
Photo 1	5/18/2023	9:48 AM	Tank farm overview including, three aqua ammonia tanks (white) and EPCRA chemicals (blue containers storing other liquid fertilizers)
Photo 2	5/18/2023	9:50 AM	30,000 gallon NH3 pressure vessel with signage
Photo 3	5/18/2023	9:51 AM	30,000 gallon NH3 pressure vessel with 5' concrete saddles off ground, metal railings and steel barriers, hazard class placards, dual PRVs
Photo 4	5/18/2023	9:51 AM	Ammonia load-in operating procedures [noted as weathered]
Photo 5	5/18/2023	9:53 AM	18,000 gallon NH3 pressure vessel with barriers, locked transfer hose cabinet, dual PRVs and piping condition
Photo 6	5/18/2023	9:54 AM	Ammonia transfer hose inside of locked hose cabinet with expiration date of 2027
Photo 7	5/18/2023	9:54 AM	Piping condition under 30,000 gallon pressure vessel
Photo 8	5/18/2023	9:54 AM	Piping and pump under 18,000 gallon pressure vessel
Photo 9	5/18/2023	9:56 AM	Emergency shutoff valves on 30,000 pressure vessel.
Photo 10	5/18/2023	9:56 AM	Emergency shutoff valve on 18,000 pressure vessel
Photo 11	5/18/2023	9:59 AM	Emergency shutoff switch (1 of 3)
Photo 12	5/18/2023	10:00 AM	Operator remote FOB to close emergency shutoff valves
Photo 13	5/18/2023	10:02 AM	Nitrogen cylinder used for emergency shutoff system
Photo 14	5/18/2023	10:02 AM	Hand-held NH3 detector indicating 2 ppm
Photo 15	5/18/2023	10:04 AM	Above ground NH3 pipe from pressure vessel to aqua ammonia converter
Photo 16	5/18/2023	10:05 AM	Aqua ammonia converter
Photo 17	5/18/2023	10:05 AM	Aqua ammonia converter cooling towers
Photo 18	5/18/2023	10:06 AM	Recirculating water pumps for aqua ammonia converter
Photo 19	5/18/2023	10:07 AM	Tanks shown here are storing liquid fertilizers; Windsock
Photo 20	5/18/2023	10:07 AM	Aqua ammonia storage tank
Photo 21	5/18/2023	10:08 AM	Aqua ammonia storage tank
Photo 22	5/18/2023	10:08 AM	Aqua ammonia converter interior
Photo 23	5/18/2023	10:10 AM	Aqua ammonia load out station
Photo 24	5/18/2023	10:11 AM	Vapor recovery system for aqua ammonia offloading station
Photo 25	5/18/2023	10:13 AM	PPE for vehicle operators
Photo 26	5/18/2023	10:13 AM	Emergency shower and vehicular barrier of 30,000 gallon pressure vessel
Photo 27	5/18/2023	10:14 AM	Tank volume gauge on 30,000 gallon pressure vessel and ASME nameplate
Photo 28	5/18/2023	11:20 AM	Posted SOPs for aqua ammonia converting