

United States Environmental Protection Agency / Region 4

Risk Management Program Supplemental Inspection Report

Citrus World, Inc. d/b/a Florida's Natural Growers

Lake Wales, Florida

March 6, 2024

1.0 Introduction

The U.S. Environmental Protection Agency (EPA) conducted a Risk Management Program (RMP) inspection of Citrus World, Inc. d/b/a Florida's Natural Growers (Citrus World or facility) located in Lake Wales, Florida on March 6, 2024. An inspection report of the EPA's observations was sent to the facility on May 14, 2024. This is a supplemental inspection report of additional observations discovered during a review of Citrus World's records which were provided to the EPA after the inspection.

2.0 Background

The facility is located in Lake Wales, Florida. This facility uses anhydrous ammonia for refrigeration purposes. The refrigeration process, consisting of piping, valves, and equipment, cycles ammonia through various physical states (high pressure liquid, low pressure liquid, low pressure vapor, high pressure vapor, then back to high pressure liquid) in order to provide refrigeration for cold food storage. The process is regulated as program level 3. According to facility records, the facility has a maximum of 202,177 pounds of ammonia on site. The ammonia refrigeration process at the facility is subject to the RMP requirements of 40 C.F.R. Part 68 and EPCRA Section 302. The background specifics are summarized as follows in Table 1.

Facility Identification

Name: Citrus World, Inc. d/b/a Florida's Natural Growers

Street Address: 20205 US Hwy 27

City: Lake Wales County: Polk State: Florida Zip: 33853

EPA Facility ID No: 1000 0005 7751

Dun & Bradstreet (D&B) No: 4091732

Latitude: 27.909614

Longitude: -081.600433

Name, title, and email of person responsible for 40 C.F.R. Part 68 implementation:

Name: Scott Smith

Title: Vice President of Operations

Phone: 863-676-1411

Email: Scott.Smith@floridasnatural.com

Name and title of emergency contact:
Name: Kenneth LaRue
Title: Safety & Security Manager
Day phone: 863-676-1411
24-hour Phone: 540-230-4448
Email: Kenneth.LaRue@floridasnatural.com

Date and Program Levels of Submitted Risk Management Plan

Date of initial submission: June 18, 1999
Date of most recent submissions: April 28, 2021
Process: Ammonia Refrigeration
Process ID: 1000115593, 1000115594
Program Level as reported in RMP: Program Level 3
NAICS code: 311411 (Frozen Fruit, Juice, and Vegetable Manufacturing)

3.0 Observations

1. 40 C.F.R. § 68.67(c)(3) requires the process hazard analysis (PHA) to address engineering and administrative (E/A) controls applicable to the hazards and their interrelationships such as appropriate application of detection methodologies to provide early warning of releases. (Acceptable detection methods might include process monitoring and control instrumentation with alarms, and detection hardware such as hydrocarbon sensors.)
 - The PHA lists E/A controls that are not applicable to the hazards of the process covered by the scope of the facility's 2020 PHA. For example, items 5.06 through 5.10 address hanging evaporators and penthouse evaporators but one of the E/A controls include the emergency action plan/evacuation plan. Although the emergency action plan/evacuation plan can help prevent personnel injuries during and/or after an initiating event, the emergency action plan/evacuation plan is not an E/A control that helps prevent the hazard.
2. 40 C.F.R. § 68.67(e) requires the owner or operator to establish a system to promptly address the team's findings and recommendations; assure that the recommendations are resolved in a timely manner and that the resolution is documented; document what actions are to be taken; complete actions as soon as possible; develop a written schedule of when these actions are to be completed; and communicate the actions to operating, maintenance and other employees whose work assignments are in the process and who may be affected by the recommendations or actions.
 - The June 2020 PHA includes a findings/recommendations table with nine (9) recommendations and has columns for risk ranking, responsibility, target completion date, actual completion date and actions taken. None of the columns included information to indicate when and how the recommendations were addressed.

3. 40 C.F.R. § 68.73(d)(2) requires inspection and testing procedures to follow recognized and generally accepted good engineering practices.
 - The five-year mechanical integrity audit conducted in March 2021 did not cover all refrigeration equipment at Citrus World. Inspection documentation provided to the EPA indicated the inspection covered ammonia machinery room (AMR) 1 and 2 and the associated equipment, but there is no indication that AMR 8 was included.
4. 40 C.F.R. § 68.73(e) requires the owner or operator to correct deficiencies in equipment that are outside acceptable limits (defined by the process safety information in § 68.65) before further use or in a safe and timely manner when necessary means are taken to assure safe operation.
 - Some of the items listed in the March 2021 audit report were listed as completed or planned with completion dates prior to the inspection; however, the EPA inspectors observed some of them remained incomplete during the inspection. For example, item number 65 in the document titled “Mechanical Integrity Back” states, “insulation is reaching near the end of its effective lifespan. Consider budgeting to replace the insulation and performing an NDT while the insulation is off to ensure the pipe is in good condition.” The anticipated completion date was listed as 12/30/25 but the action taken says completed. The EPA noted damaged insulation that required replacement on numerous portions of the ammonia piping and pressure vessels throughout the facility. Additionally, the EPA inspectors observed ammonia piping used for oil draining from oil pots was not capped to prevent inadvertent releases in numerous locations. However, item number 77 in the document titled “Mechanical Integrity Back” states, “Ensure procedures are established to ensure caps and plugs are installed on all openings to the system and after maintenance procedures have been completed.” The corresponding recommendations table listed a completion date of 5/30/2021 and indicated more information was included in CMMS. Based on the EPA’s observations in March 2024, this item had not been completed and/or the facility’s maintenance team was not following applicable maintenance procedure to ensure caps and plugs are installed.
5. 40 C.F.R. § 68.73(f)(2), requires appropriate checks and inspections to be performed to assure that equipment is installed properly and consistent with design specifications and the manufacturer's instructions.
 - Citrus World provided their incident tracking log beginning in early 2016 through February 2024 that shows over 300 small ammonia releases that had occurred between 2016 and 2024, most of which were associated with bushing leaks, packing nut leaks, and flange leaks. The EPA also noted that 17 of the 50 ammonia detectors at Citrus World were measuring on-going ammonia leaks on the day of the inspection. Measured ammonia levels at the detectors ranged from 1 ppm to as high as 20 ppm on the north central wall of AMR 2. Additionally, Citrus World has been adding ammonia to the system annually since 2020. For example, in 2020, Citrus World added 18,961 pounds of ammonia to the refrigeration system, in 2022 Citrus

World added 27,780 pounds to the refrigeration system, and in 2023 Citrus World added 15,283 pounds of ammonia to the refrigeration system.

6. 40 C.F.R. § 68.79(d) requires the owner or operator to promptly determine and document an appropriate response to each of the findings of the compliance audit, and document that deficiencies have been corrected.
 - The 2020 compliance audit included seven (7) action items, all of which are listed as complete. Although each is listed complete, two action items were identified by The EPA during the inspection on March 6, 2024, as still being open. For example, the second action item from the 2020 compliance audit states, “Secure all engine room doors and limit access to authorized personnel only.” The action taken states, “authorized person signs is up on all engine room doors and doors are closed.” The EPA observed signs are on engine room doors (i.e. AMR) that state authorized personnel only, but the doors are not secured to prevent unauthorized personnel from entering. Additionally, the 2020 compliance audit has an action item that states, “Engine room signage must contain Machine Room ID, Servicing Contractor, Emergency Phone Nos., NH3 inventory in lbs., Oil inventory & type in gallons, Pressure test (high & low side).” Compliance audit information indicates this item was closed on June 6, 2020, but the EPA observed that the entry doors to AMR 1 and 2 do not have this signage and the entry door to AMR 8 has some information but signage is damaged.

Inspection Report,

Prepared by:

**JUSTIN
STARK**

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JUSTIN STARK
Date: 2024.11.19
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Justin Stark, Inspector
North Air Enforcement Section
U.S. EPA Region 4

Approved by:

**JASON
DRESSLER**

Digitally signed by JASON
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Date: 2024.11.19
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Jason Dressler, Section Chief
North Air Enforcement Section
U.S. EPA Region 4