**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: | Shell New Energies, Junction City |
| Physical Address: | 92757 Hwy 99 S,<br>Junction City, OR 97448 |
| Phone Number: | (541) 234-2339 |
| Latitude/Longitude: | 44.183828/-123.201394 |
| RMP Facility ID# | 100000245086 |
| FRS ID#: | 110070396247 |
| EJ Concerns: | No (Below 80%) |
| Website: | https://www.shell.us/about-us/projects-and-locations/shell-new-energies-junction-city--biomethane-facility.html# |

**CONTACT INFORMATION (RMP Implementation)**:

| | |
|---|---|
| Name: | Shawn Dueitt |
| Title: | Production Superintendent |
| Phone Number: | (541) 234-2339 |
| E-mail: | shawn.dueitt@shell.com |

**EMERGENCY CONTACT INFORMATION**:

| | |
|---|---|
| Name: | Dominca Vacca |
| Title: | Commercial and Technical support for Renewable Natural Gas opportunities |
| Phone (24-hr): | (541) 255-6619 |
| E-mail: | dominic.vacca@shell.com |

**TRIP DETAILS**:

| | |
|---|---|
| Inspection Date: | February 9, 2024 |
| Inspection Time: | 0800 hours through 1120 hours |
| EPA Inspection Team: | Edward Johannes, US EPA Region 10 SEE Grantee, Lead RMP Inspector<br>Terry Garcia, US EPA Region 10 SEE Grantee, RMP Inspector<br>Peter Phillips, US EPA Region 10 SEE Grantee, RMP Inspector<br>Robert Faries, Weston Solutions, Inc., EPA START Contractor<br>Ken Valder, Weston Solutions, Inc., EPA START Contractor |

**DATE AND PROGRAM LEVELS OF SUBMITTED RMP**:
Initial Submission Date: May 4, 2021
Date of Latest Update: May 4, 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) |
|---|---|---|---|---|---|---|
| 1000116154 | Process 1 | 1000145195 | 48621 | 2 | Methane 74-82-8 | 10,048 |

**PURPOSE**:
The purpose of this inspection was to determine if this facility is in compliance with Section 112(r) of the Clean Air Act (CAA) 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 2023 Tier II report to the SERC? No ☐ Yes ☒
*If Yes, Date the Tier II was submitted:* February 8, 2024
*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:* February 8, 2024

**INSPECTION ENTRY:**
Edward Johannes led the inspection entry. The EPA Inspection Team (EPA) met with facility representatives Jeff Ham, Andrea George, Sarah Connel, Jim Butler, Sierra Howard, Kevin Malletto, and Micah Lindvall at the Shell New Energies facility in Junction City, Oregon. EPA arrived at the facility at 0800 and was joined by the following facility personnel:

| Name | Title, Organization |
|---|---|
| Jeff Ham | Operation Manager, Greenberry Industrial |
| Andrea George | Consultant, ERM |
| Sarah Connel | Senior Environmental Advisor, Shell |
| Jim Butler | Consultant, Shell |

| Name | Title, Organization |
|---|---|
| Sierra Howard | Site Admin, Greenberry Industrial |
| Kevin Malletto | HSSE Manager, Greenberry Industrial |
| Micah Lindvall | Operator, Greenberry Industrial |

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

*If Yes, Name and Title of Representative:*

The facility is a first responder: No ☒ Yes ☐

*If No, Responding Agency:* Junction City Fire Department

Facility representatives escorted EPA to a conference room located in the facility's office building. Lead Inspector Edward Johannes, introduced all parties present, provided a summary of the Risk Management Program (RMP), and explained the purpose of the visit. Each EPA Inspector 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. Jeff Ham gave a brief description of the facility, operations, and personal protective equipment required for the tour.

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 facility had incorrectly filed as an RMP Program Level 2 facility. On February 22, 2024, they filed a correct RMP and are now regulated under RMP rule as a Program Level 3 facility. They are owned and operated by Shell New Energies (SNE). SNE is a biomethane production facility. Agricultural crop residues derived from rye grass and wheat and manure from local ranches are the two feedstocks utilized by SNE to produce biomethane. Crop residue is put through a grinder and turned into cubes. The cubes are then transported to a solid input device bin (SID bin) on the north side of the property. SNE utilizes three SID bins for crop residue and one for manure. The SID bins feed material into the six digesters. Biogas accumulates in the headers of the digesters where it is piped through scrubbers for carbon dioxide and hydrogen sulfide before entering gas collectors on the south side of the facility. From the storage collectors biomethane is injected into a commercial pipeline for use as natural gas. A flare is utilized when storage tanks are under maintenance. The methane produced in this process is the RMP-regulated substance. Greenberry Industrial operates the facility 24/7 with 14 full-time employees, five to six of whom are operators in the covered process.

**ON-SITE OBSERVATIONS**:
EPA toured SNE from approximately 0830 hours to 0940 hours, escorted by facility representatives Jeff Ham, Andrea George, Jim Butler, Kevin Malletto, and Micah Lindvall. EPA underwent a safety briefing in the facility's training room. After the safety briefing, EPA was escorted to the north end of the property, passing the six digesters, biogas headers, flare, and gas lines (Photos 1, 2, and 3). On the far north end of the property, EPA observed the straw processing area where crop residue is unloaded, ground, cubed, and sent to the SID bins (Photo 4). An eye wash and first aid station are located in the straw processing area (Photo 5). EPA entered the cubing control tent before making their way to the equipment alley (Photo 6).

In the equipment alley, EPA observed the four SID bins and six digesters (Photo 7 and 8). Each SID bin is equipped with an emergency shut-off switch (Photo 9). A heat exchanger is located between digesters four and six (Photo 10). There are a series of bridges and safety rails that connect the six digesters (Photo 11). A second emergency eye wash and first aid station are located in the equipment alley (Photo 12).

EPA followed the pipe bridge that transports gas from the digesters to the gas holder and gas upgrading system on the south side of the facility. In the gas upgrading system, biomethane passes through a carbon dioxide stripper, hydrogen sulfide filters, and renewable natural gas dryers that remove moisture (Photo 13, 14, and 15). EPA was escorted to the gas holding area, viewing the gas chromatography station, and the standard operating procedures (SOPs) (Photo 16 and 17). SNE representatives pointed out a pipe on the gas holder labeled with conflicting flow directions (Photo 18). They stated the pipe labeling would be addressed during upcoming maintenance. Gas travels from the holding tank to the blower which sends it to the gas upgrading system (Photo 19). When the gas holder undergoes maintenance, gas generated in the digesters is diverted into the facility's flare (Photo 20 and 21). EPA walked the perimeter of the gas holder and viewed the gas upgrading control room (Photos 22 and 23).

After touring the RMP-covered process areas at the facility, EPA returned to the conference room to review the RMP documentation. Upon completion of the document review, EPA provided a debriefing to Jeff Ham, Andrea George, Sarah Connel, and Jim Butler.

**INFORMATION COLLECTED FROM FACILITY:**

1. 2019 Process Hazard Analysis
2. Site Map
3. SOP Training Certification
4. Sign-in Sheet
5. 2023 Emergency and Hazardous Chemical Inventory
6. Facility Incident and Emergency Response Management Flowchart
7. RMP with the wrong program registration

**AREAS OF CONCERN ADDRESSED IN CLOSING CONFERENCE:**

1) **General: Management [68.15]**: SNE has not developed a management system to oversee the implementation of the risk management program elements. [68.15(a)]. SNE was unable to provide documentation on their management system.
2) **General: Management [68.15]**: SNE has not assigned a qualified person or position that has the overall responsibility for the development, implementation, and integration of the risk management program. [68.15(b)]. SNE was unable to provide documentation on their management system.
3) **General: Management [68.15]**: SNE has not documented other persons responsible for implementing individual requirements of the risk management program and defined the lines of authority through an organization chart or similar document. [68.15(c)]. SNE was unable to provide documentation on their management system.

4) **Contractors [68.87]**: SNE has not periodically evaluated the performance of the contractor owner or operator and contract employees in the covered process area. [68.87(b)(5)]. The third party contractor is Greenberry Industrial.
5) **Operating Procedure [68.69]**: SNE has not certified annually that their 2024 operating procedures are current and accurate and that procedures have been reviewed as often as necessary to ensure that they reflect current operating practice, including changes that result in changes in process chemicals, technology, and equipment, and changes to stationary sources. [68.69(c)]. SNE had filed as a RMP Program Level 2 instead of a 3, which does not require certifications.
6) **Risk Management Plan [40 CFR 68.150-68.195]**: SNE's single registration form did not include the correct program level of the process. [68.160(b)(7)]. SNE reported a Program Level 2 process that must be identified as a Program Level 3.

**DOCUMENTS REQUESTED NOT INCLUDED IN REPORT:**
SNE supplied all requested documents on February 23, 2024. No further documentation is required.

**INSPECTION REPORT CERTIFICATION:**
This is to certify that I, Edward Johannes, was the lead inspector at this facility and that I have verified the accuracy of the observations in this inspection report:

EDWARD JOHANNES (Affiliate)
Digitally signed by EDWARD JOHANNES (Affiliate)
Date: 2024.04.12 16:35:12 -07'00'

Inspector Signature

JAVIER MORALES
Digitally signed by JAVIER MORALES
Date: 2024.04.15 14:30:53 -07'00'

RMP Coordinator/Approval

ERIN WILLIAMS
Digitally signed by ERIN WILLIAMS
Date: 2024.04.17 11:20:47 -07'00'

EPCRA Coordinator/Approval

MATTHEW QUARTERMAN
Digitally signed by MATTHEW QUARTERMAN
Date: 2024.04.17 13:20:20 -07'00'

Land Enforcement Section Chief/Approval

**Attachment A – Photo Log**
Site Name: RMP Inspection – Shell New Energies
City, State: Junction City, Oregon
Photographer: Robert Faries, Weston Solutions

| File | Photo Layout ID | Date | Time | Description |
|---|---|---|---|---|
| Photo1.jpg | 1 | 2/9/2024 | 0830-0940 hrs | Facility overview including the six digesters.<br>Location in Facility: South property. |
| Photo2.jpg | 2 | 2/9/2024 | 0830-0940 hrs | Flare, gas holder, gas upgrading area, and connecting lines between the north and south property. Location in Facility: South property. |
| Photo3.jpg | 3 | 2/9/2024 | 0830-0940 hrs | Digesters three and five.<br>Location in Facility: Equipment alley. |
| Photo4.jpg | 4 | 2/9/2024 | 0830-0940 hrs | Cubing conveyor belt.<br>Location in Facility: Straw processing area. |
| Photo5.jpg | 5 | 2/9/2024 | 0830-0940 hrs | Eyewash and first aid station.<br>Location in Facility: Straw processing area. |
| Photo6.jpg | 6 | 2/9/2024 | 0830-0940 hrs | Cubing control tent.<br>Location in Facility: Straw processing area. |
| Photo7.jpg | 7 | 2/9/2024 | 0830-0940 hrs | Solid input device (SID bin).<br>Location in Facility: Equipment alley. |
| Photo8.jpg | 8 | 2/9/2024 | 0830-0940 hrs | SID bins and digesters.<br>Location in Facility: Equipment alley. |
| Photo9.jpg | 9 | 2/9/2024 | 0830-0940 hrs | SID bin emergency shutoff.<br>Location in Facility: Equipment alley. |
| Photo10.jpg | 10 | 2/9/2024 | 0830-0940 hrs | Heat exchanger and connecting lines between digesters four and six.<br>Location in Facility: Equipment alley. |
| Photo11.jpg | 11 | 2/9/2024 | 0830-0940 hrs | Bridge between Digesters.<br>Location in Facility: Equipment alley. |
| Photo12.jpg | 12 | 2/9/2024 | 0830-0940 hrs | Eyewash and first aid station.<br>Location in Facility: Equipment alley. |
| Photo13.jpg | 13 | 2/9/2024 | 0830-0940 hrs | Carbon dioxide strippers.<br>Location in Facility: Gas upgrading area. |
| Photo14.jpg | 14 | 2/9/2024 | 0830-0940 hrs | Renewable natural gas dryers and surge vessel.<br>Location in Facility: Gas upgrading area. |
| Photo15.jpg | 15 | 2/9/2024 | 0830-0940 hrs | Hydrogen Sulfide absorber.<br>Location in Facility: Gas upgrading area. |
| Photo16.jpg | 16 | 2/9/2024 | 0830-0940 hrs | Gas chromatograph.<br>Location in Facility: Gas holding area. |
| Photo17.jpg | 17 | 2/9/2024 | 0830-0940 hrs | Facility SOPs.<br>Location in Facility: Gas holding area. |
| Photo18.jpg | 18 | 2/9/2024 | 0830-0940 hrs | Direction arrow mislabeled on gas pipe from the gas holder to the gas upgrading system.<br>Location in Facility: Gas holding area. |
| Photo19.jpg | 19 | 2/9/2024 | 0830-0940 hrs | Blower that takes gas from the holder to gas upgrading.<br>Location in Facility: Gas holding area. |
| Photo20.jpg | 20 | 2/9/2024 | 0830-0940 hrs | Gas flare.<br>Location in Facility: Gas holding area. |
| Photo21.jpg | 21 | 2/9/2024 | 0830-0940 hrs | Flare blower skid.<br>Location in Facility: Gas holding area. |
| Photo22.jpg | 22 | 2/9/2024 | 0830-0940 hrs | Gas holder.<br>Location in Facility: Gas holding area. |
| Photo23.jpg | 23 | 2/9/2024 | 0830-0940 hrs | Gas upgrading master shut-off.<br>Location in Facility: Gas upgrading control room. |