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BEFORE THE HEARING BOARD OF THE

SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT

In the Matter of

GOODRICH CORPORATION,
(Facility ID No. 11998),

Case No. 6253-1

[PROPOSED] ORDER GRANTING A REGULAR VARIANCE

Section 42350 of the California Health and Safety Code

Hearing Date: April 30, 2024
Time: 9:30 a.m.
Place: Hearing Board Room
South Coast Air Quality Management District
21865 Copley Drive
Diamond Bar, CA 91765

[PROPOSED] FINDINGS AND DECISION OF THE HEARING BOARD

Goodrich Corporation's ("Goodrich" or "Petitioner") February 23, 2024 Petition for a Regular Variance was heard on the Hearing Board's Consent Calendar on April 30, 2024, pursuant to public notice and in accordance with the provisions of the California Health and Safety Code section 40826 and South Coast Air Quality Management District ("South Coast AQMD") Rule 510. The following members of the Hearing Board were present: Cynthia Verdugo-Peralta, Chair; Robert Pearman, Vice Chair; Mohan Balagopalan; Jerry P. Abraham, MD, MPH, CMQ; and Micah Ali. Goodrich, represented by Robert L. Hines, Farella Braun + Martel, LLP, did not appear. South Coast AQMD ("Respondent"), represented by Sheri Hanizavareh, Principal Deputy District Counsel, also did not appear.

The matter was submitted for consideration on the Consent Calendar. The public was given an opportunity to testify. The Declarations of Sandra Perez and Mark Ruiz were received as evidence, and the Parties agreed to incorporate all prior evidence as submitted in the interim variance petition for the emergency flare submitted on February 23, 2024, and heard by the Hearing Board on March 7, 2024. The [Proposed] Findings and Decision of the Hearing Board stipulated to by the Parties was received. The Parties have stipulated by Joint Stipulation to Place Matter on Consent Calendar and to the issuance of this Order. The Hearing Board finds and decides as follows:

BACKGROUND

A. Goodrich's Business and Santa Fe Springs Facility

Goodrich manufactures carbon brakes and other aircraft components at its facility located at 11120 S. Norwalk Blvd in Santa Fe Springs, California ("Facility"). Military and national security customers comprise about 76 percent of the Facility's customer base. The Facility also has the equipment and expertise to manufacture certain products that Goodrich's other two manufacturing facilities in the U.S. cannot. The Facility therefore serves a vital public interest by supplying military and national security customers with products that other facilities cannot.

At a high level, the Facility's production process includes three steps. First, the Facility receives carbon fiber textile material and prepares it for the brake production process. Second, the

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material proceeds through the furnace deck process, which includes densification, heat treatment, and coating. Third, machining and hardware assembly occurs during the machine shop process.

Goodrich's variance petition relates to an emergency flare, which is part of the equipment for the furnace deck process. As discussed in further detail below, the emergency flare is a backup air pollution control device for the large furnaces required to heat the brake materials for Goodrich's proprietary carbon densification process, which is a necessary step in the carbon brakes manufacturing process. The Facility houses a series of these furnaces in a large building.

Goodrich's petition seeks a variance for one of the ten conditions in its April 17, 2014 Permit to Operate (Permit No. G30825) for the emergency flare ("Permit"). Decl. of S. Perez, Ex. A. In particular, Goodrich seeks temporary relief from the condition related to the total duration that Goodrich may operate in the flare in a twelve-month rolling period. The Permit is one of fifty-two permits the Facility has from South Coast AQMD.

B. Goodrich Seeks a Variance Related to Its Backup Emergency Flare

Goodrich's petition seeks a variance from the thirteen-hour, rolling twelve-month operation limit for the emergency flare under the Permit.

While Goodrich does not regularly operate the emergency flare, Goodrich must have the flare on standby to safely operate the Facility and comply with other permitting requirements. The South Coast AQMD air permits for the Facility's furnaces, for example, have conditions that require the furnaces to vent to an oil scrubber and boiler with a backup flare available to control volatile organic compounds ("VOC") and toxic air contaminant ("TAC") emissions. The Facility's South Coast AQMD permits to operate for its furnaces similarly require Goodrich to have the emergency flare line on standby (*see e.g.*, Permit # G71191, Permit Condition 4).

The emergency flare is a backup air pollution control system that combusts process gas from the furnaces during emergencies to ensure safe venting of these gases. The Facility's scrubbers and boilers serve as the primary pollution control devices for the furnaces, and during normal operations, the furnace process gas is combusted through these onsite boilers. However, during an equipment malfunction or other emergency, the flare safely burns process gas from the furnaces to avoid the potential hazards from gas venting directly into the atmosphere.

Accordingly, when a boiler outage or other emergency occurs, the flare operates as the pollution control device for the furnaces to effectively reduce VOC and TAC emissions until Goodrich resolves the issue, which Goodrich typically can do in under twenty minutes.

On the night of Saturday, February 3, 2024, a Goodrich mechanic discovered that a solenoid valve failed and remained open on one of the piping systems that connect the furnaces to the flare and other equipment. In particular, the solenoid valve that failed controlled the compressed air into the isolation valve actuator. The valve failure thus caused the isolation valve to remain open.

The malfunctioning valve allowed process gas to flow into both the boiler and the emergency flare. The process gas flowing through the emergency flare line caused the flare to operate for approximately sixteen hours until the mechanic discovered the solenoid valve failure and manually closed the valve. This exceeded the current thirteen-hour, twelve-month rolling limit set forth in the Permit. However, the emergency flare functioned as intended, and it prevented the release of process gas.

The solenoid valve failure was an unanticipated mechanical failure that had never before occurred at the Facility, and because the solenoid valve was an unknown possible point of failure, it did not trigger the Facility's alarm system, which was designed to detect the known pathways, permit conditions, and failure conditions to the flare.

Since the February 2024 solenoid valve failure event, Goodrich has redesigned its flare alarm and monitoring systems to detect any future solenoid valve failures. For facility safety reasons and to comply with the Facility's South Coast AQMD permits, Goodrich must have the emergency flare line on standby. Therefore, Goodrich requests a variance from the emergency flare's thirteen-hour, twelve-month rolling operation limit through January 31, 2025, so that it can continue to operate.

SUMMARY

Goodrich has violated the condition of the Permit that only allows it to operate the emergency flare for thirteen hours over a rolling twelve-month period. On March 7, 2024, the Hearing Board granted Goodrich an interim variance to operate the emergency flare until the

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Hearing Board could consider the matter at a regular variance hearing on April 30, 2024. Given the duration of the solenoid valve failure event in February 2024 and that the Permit's thirteen-hour operation limit is calculated based on the operation time in a rolling twelve-month period, Goodrich requires a regular variance for operations at the Facility through January 31, 2025.

FINDINGS OF FACT AND CONCLUSIONS

As described in detail below, the Hearing Board finds that the evidence supports the findings required by California Health and Safety Code section 42352 to grant Goodrich's variance petition. The Executive Officer and South Coast AQMD do not oppose the granting of the variance.

A. First, Goodrich will be in violation of a rule, regulation, or order of the district without a variance. Cal. Health & Safety Code § 42352(a)(1).

Without flare line operation variance relief, Goodrich will be in violation of Condition No. 3 of the Permit, which provides that the emergency flare "shall not be used more than 13 hours in any one 12-month rolling period." Decl. of S. Perez, Ex. A. Because the February 2024 solenoid valve failure caused the emergency flare to operate for sixteen hours, Goodrich will be in violation of this condition when the interim variance expires. Goodrich would remain in violation of the Permit's thirteen-hour twelve-month rolling limit with each individual operation of the flare, through January 31, 2025, when the February 2024 solenoid valve failure would roll off the twelve-month tracking period under the Permit.

As discussed above, safety and the conditions in other South Coast AQMD permits require that Goodrich have the emergency flare on standby and available to operate. Further, while Goodrich's use of the flare is unpredictable, Goodrich's records demonstrate that it uses the flare for approximately ten to twenty minutes in a typical month. Goodrich thus expects that the Facility will need to use the flare during the nine-month period between April 30, 2024, and January 31, 2025. Further, when Goodrich has flare operations, it will be in violation of South Coast AQMD Rule 203(b), which prohibits operating equipment contrary to the conditions set forth in a permit to operate.

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B. Second, due to conditions beyond Goodrich's reasonable control, requiring compliance would result in either (A) an arbitrary or unreasonable taking of property, or (B) the practical closing and elimination of a lawful business. Cal. Health & Safety Code § 42352(a)(2).

The availability of the emergency flare is required for the Facility to operate the furnaces for the carbon densification process. However, without variance relief, Goodrich cannot operate the emergency flare because the February 2024 solenoid valve failure event exceeded Goodrich's thirteen-hour operation limit under the Permit for the current rolling twelve-month period. Goodrich would therefore have to shut down the Facility's operations without variance relief because Goodrich must have the ability to operate the flare in order to comply with its obligations under other permits issued by South Coast AQMD.

First, the flare is an essential safety and air pollution control device for the Facility's manufacturing operations that ensures process gas is safely vented from the furnaces and out of the building if an emergency occurs. Without backup flaring capability, the Facility would be unable to manufacture carbon products safely and would need to be shut down.

Second, the Facility's other permits from South Coast AQMD require that the Facility have the ability to operate the emergency flare. For example, the permits to operate for the Facility's furnaces require Goodrich to have the emergency flare line on standby. The Facility must use the furnaces for the carbon densification process required for all of its manufacturing processes, so Goodrich's inability to operate the furnaces would halt production at the Facility.

If Goodrich must halt production from April 30, 2024, until February 2025, it faces approximate economic losses of $71 million. Shutting down the Facility would also impact the local Santa Fe Springs and Norwalk economies because it would result in approximately 110 Goodrich employees losing their jobs losses to external suppliers who support the Facility.

Halting production would also prevent Goodrich from meeting delivery obligations to its customers in 2024 and 2025. This would negatively impact public welfare and national security because various commercial and military aircraft programs, including U.S. Air Force programs that rely on the Facility for support. Indeed, certain special processes to support products (including military program products) are unique to the Facility and cannot be currently performed

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at other Goodrich facilities. The necessary knowledge transfer and qualification of these commercial and military programs at other Goodrich facilities would take around two years. As a result, the continued operation of the Facility is the only way to fulfill orders for these programs and customers. Even delays in fulfilling orders for military program components could reduce warfighter readiness and otherwise impact national security.

Goodrich could not have avoided or anticipated the February solenoid valve failure that caused the emergency flare to operate—it was an unavoidable equipment failure that Goodrich corrected shortly after discovery. The valve at issue was within its recommended life span, and Goodrich had no notice that it would fail beforehand. In particular, under its standard operating procedures, Goodrich tests the valves after every production run approximately every two weeks by opening and closing the valves from the control room. This would have detected any valve failure.

C. Third, the closing or taking would be without a corresponding benefit in reducing air contaminants. Cal. Health & Safety Code § 42352(a)(3).

The emergency flare is a pollution control device that controls VOC and TAC emissions, so granting or denying the interim variance would have a non-negligible impact on air quality. Although denying the variance would require Goodrich to halt production, which would stop all air emissions, operating the emergency flare also prevents emissions by effectively controlling VOC and TAC emissions from the process gas. As a result, Goodrich's ability to operate the emergency flare is important to control emissions and protect public health. Further, as discussed above, halting Goodrich's operations would disrupt the delivery of carbon brake products to Goodrich's military and national security customers as well as result in losses for local economies.

At most, operation of the emergency flare may result in a negligible increase in NOx, Benzene, and 1,3-Butadiene emissions because the Facility's two boilers have control devices for NOx that the flare does not.[1] Further, any additional NOx, Benzene, and/or 1,3-Butadiene

[1] During the March 7, 2024, interim variance hearing, Hearing Board Member Balagopalan inquired as to the basis of the thirteen-hour/year operating limit. While researching this issue, South Coast AQMD staff located the Health Risk Assessment Report: Backup Flare Application

emissions are negligible, given that excluding the February 2024 solenoid valve failure event, the emergency flare records show it operates for approximately ten to twenty minutes in a typical month.

D. Fourth, Goodrich has considered curtailing operations of the source in lieu of obtaining a variance, and curtailment is not possible. Cal. Health & Safety Code § 42352(a)(4).

As discussed above, safety and South Coast AQMD permits require the Facility to have the emergency flare available when the Facility runs its furnaces for the proprietary carbon densification process. All the Facility's operations require this step in the manufacturing process, so Goodrich's inability to operate the furnaces would halt production at the Facility. Further, because the emergency flare must be available to operate the furnaces at any level of production, there is no option to curtail operations in lieu of obtaining a variance. Nevertheless, Goodrich intends to minimize the operation of the emergency flare during the variance period to the extent possible.

E. Fifth, during the period the variance is in effect, Goodrich will reduce excess emissions to the maximum extent feasible. Cal. Health & Safety Code § 42352(a)(3).

Goodrich has implemented the steps outlined below to correct the issues that led to the delayed detection of the solenoid valve failure and further reduce the likelihood that the Facility will need to rely on the emergency flare.

First, on February 3, 2024, Goodrich replaced the failed solenoid valve shortly after discovering the issue.

Second, on February 5, 2024, Goodrich programmed additional failure alarms to all incoming boiler and flare valves to ensure it detects any future valve failures. This enables Goodrich's staff to act immediately to correct any future issues. Goodrich staff monitor the control room twenty-four hours a day, seven days a week.

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No. 336586, dated June 12, 2000. *See* Decl. of S. Perez, Ex. B.

Third, the Facility conducted an internal investigation regarding the detection and mitigation of flare usage and has implemented the following additional actions:

- Update alarms on all the valves to instruct operators on recommended actions and possible causes for flare operation;
- Modify the flare timer programming to detect any possible pathways for process gas to enter the flare line; and
- Evaluate the Infra-Red camera as a secondary source to trigger the flare timer and alarms.

The Facility plans to implement the following actions in the near future:

- Establish PM frequency for physically testing the solenoid valves and update the mechanical integrity program accordingly; and
- Update programing to trigger an automatic shut down all furnaces in operation should a pathway to flare be opened during non-emergency scenarios.

Accordingly, Goodrich has corrected the issues that led to the delayed detection of the solenoid valve failure and further reduced the likelihood that the Facility will need to rely on the emergency flare during the variance period.

F. Sixth, during the period the variance is in effect, Goodrich will monitor or otherwise quantify emission levels from the emergency flare as requested to do so by the South Coast AQMD and report these emission levels to the South Coast AQMD pursuant to a schedule established by the South Coast AQMD. Cal. Health & Safety Code § 42352(a)(6).

Goodrich has flow, temperature, and valve positions on a 24/7 monitored control system. These measurements allow Goodrich to monitor and quantify any emissions from the emergency flare, consistent with the conditions agreed to by Goodrich and South Coast AQMD set forth below. Goodrich will report the required information to South Coast AQMD according to the scheduled agreed to by the Parties and set forth below.

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ORDER

THEREFORE, good cause appearing, the Hearing Board orders as follows:

A. Petitioner is granted a regular variance from South Coast AQMD Rule 203(b) and Condition No. 3 of Permit No. G30825 for the emergency flare, commencing April 30, 2024, and continuing through January 31, 2025.

B. The variance granted herein is subject to the following conditions:

1. Petitioner shall ensure the flare is operated at not less than 1400 degrees Fahrenheit in accordance with Condition No. 5 of Permit No. G30825.

2. Petitioner shall notify the South Coast AQMD by email to Air Quality Inspector Andrea Barlow (abarlow@aqmd.gov) each time the flare is in active use (defined as when process gas from one or more furnaces is flowing to the flare), during the variance period.

3. Petitioner shall continue to maintain a monthly operating log beginning May 2024 for active use of the flare and shall send the records to South Coast AQMD by email to Air Quality Inspector Andrea Barlow (abarlow@agmd.gov) on the first Tuesday of each month starting in June 2024. The operating log shall list active flare operations in the following areas:

    a. Date and hours of operation;

    b. Temperature of the exiting flue gas for the duration of the active operating period(s);

    c. Gas flow rate in scfh to the flare; and

    d. Twelve-month rolling hours of operation.

4. Petitioner shall maintain all alarms for the flare, furnaces, valves, and associated equipment in active status, that is operational and ready to indicate equipment failure or malfunction when triggered. Alarms may be deactivated or bypassed during shutdown/maintenance periods. After these events, the alarms must be returned to active status prior to start-up of the equipment.

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5. Petitioner shall calculate, record, and report all excess emissions, including any toxic air contaminants, if any, during the variance period, and pay appropriate excess emission fees to the Clerk of the Board by February 3, 2025, or as otherwise directed by the Board.

FOR THE BOARD: _____

DATED: _____

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