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8 **UNIVERSAL CITY STUDIOS LLC**

9 **BEFORE THE HEARING BOARD OF THE**
10 **SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT**

11 In the Matter of

12 **UNIVERSAL CITY STUDIOS LLC,**

13 Petitioner.

Case No.: 4935-20

Facility I.D.: 800202

**DECLARATION OF JOSEPH C.
BELLAS IN SUPPORT OF PETITION
FOR SHORT VARIANCE**

Hearing Date: August 15, 2023

1 1. I am the Vice President of Corporate Environmental Affairs for Petitioner
2 Universal City Studios LLC (“Universal”) and the person responsible for ensuring
3 environmental compliance for Universal. I also am a registered Professional Engineer. I have
4 personal knowledge of the facts stated herein and, if called as a witness, could and would
5 testify competently thereto under oath.

6 2. I am familiar with Universal Studios’ Petition for Short Variance filed on July
7 18, 2023 in this case, including the District Rules referenced in the petition.

8 3. Universal is petitioning for a short variance from District Rule 401(b)(1)(B) and
9 California Health and Safety Code Section 41701 for the use of fog machines to create special
10 effects required for Universal’s “Halloween Horror Nights.”

11 4. This declaration is submitted pursuant to the Rules and Procedures of the District
12 Hearing Board Rule 4(a) in support of Universal’s Petition for Short Variance filed on July 18,
13 2023.

14 **PROCEDURAL BACKGROUND**

15 5. This case involves the use of special fog effects in connection with Universal’s
16 “Halloween Horror Nights” event. This same event has been held almost annually since 2000,
17 most recently in 2022, and Universal has been granted the relief requested here on all prior
18 occasions. The quantity of fog used per event will remain the same.

19 6. For the event, Universal plans to use a maximum of 82 fog machines that are
20 exempt from permitting requirements by Rule 219(d)(16)(M). A fog machine produces an
21 opaque fog that remains close to the ground to create a fog effect. The machines will be placed
22 in the locations identified in Attachment 1 to the Petition for Short Variance. Universal may
23 determine that these machines or additional machines may be reallocated among these or other
24 sites within the event in order to achieve the necessary effects. In no event, however, shall
25 Universal operate more than 82 fog machines during any one event. Use of the fog machines
26 will result in a violation of the opacity standards in District Rule 401 and Health and Safety
27 Code 41701.

1
2 7. Most recently, in 2019, 2021 and 2022, Universal used 60 fog machines.
3 Universal would like to use the additional 22 machines this year in order to be more strategic
4 about the locations where fog is deployed but expects to use the same daily amount of fog
5 fluid as used in previous years (when 60 machines were used). More specifically, by adding
6 some fog machines in closer proximity to one another, Universal expects to achieve
7 comparable effect from the fog coverage while using less fog fluid from a given machine,
8 because the fog can be more localized. In sum, while there will be 22 additional fog-generating
9 machines compared to recent years, the total amount of fog fluid used per event will not exceed
10 that used in the most recent years' events (a maximum of 180 gallons per event).

11 8. The fog machines heat a theatrical fog fluid consisting of propanediol and
12 triethylene glycols and water, releasing a vapor that creates the artificial fog. No combustion
13 occurs in this process. Upon release, the vapor cools and forms an aerosol, which creates the
14 fog effect. Use of the fog machines will be in accordance with permits and approvals issued
15 by the Los Angeles County Fire Department and the Los Angeles County Department of
16 Building and Safety.

17 9. The exposure to fog effects and opacity exceedances will be short in duration.
18 Opacity exceedances will occur at attractions contained on the map attached as Attachment 1
19 to Universal's Petition and areas added in order to achieve the necessary effects.

20 10. Fog fluid and machines are widely used throughout the entertainment industry.
21 Ultratec fog fluids have been used safely in past events and I am unaware of any known risk
22 to human health where exposure does not exceed recommended levels. A copy of the Safety
23 Data Sheet ("SDS") for the Ultratec fog fluid to be used in the fog machines is provided as
24 Attachment 3 to the Petition for Short Variance. The SDS indicates that the product is not
25 known to be a "Hazardous Chemical" as defined by the Occupational Safety and Health
26 Administration's ("OSHA") hazard Communication Standard. The short duration of exposure
27 at the proposed events and the safety of the fog fluid support the conclusion that negative
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1 effects are not anticipated to occur during the duration of “Halloween Horror Nights” events.

2 11. Universal Studios understands that the fog machines and fog fluid and machines
3 that Universal Studios used in the past and that will be used in this year’s event are widely and
4 safely used in the entertainment industry to achieve the desired scary effect during the event.

5 12. Since 2011, at the Hearing Board’s request, Universal has considered the
6 viability of obtaining an amendment to District Rule 401 and California Health and Safety
7 Code Section 41701 that would allow their proposed fog generating activities absent the need
8 for a variance. However, after discussing the possibility with the District, it was determined
9 that any such amendment(s) were unlikely to be pursued because they would be time intensive
10 and costly, and there are only a few sources in the basin and in the state that are affected, and
11 for very few days of the year.

12 13. Nonetheless, Universal further consulted with the District several times about
13 the possibility of a rule amendment and/or rulemaking that would establish a permit process
14 for activities like those proposed by Universal, and that would eliminate the need for this
15 variance. The District ultimately communicated that there is no rulemaking currently
16 underway to change Rule 401, and staff continues to believe a variance is the appropriate
17 means to facilitating Petitioner’s event at this point in time. For these reasons, it appears that
18 a variance is the proper mechanism for relief in this instance.

19 14. It is beyond Universal’s reasonable control to comply with District Rule 401 or
20 California Health and Safety Code Section 41701. Universal is creating a Halloween
21 entertainment event specifically designed to evoke a scary, foreboding environment. The fog
22 effects are an integral part of that design. A fog-obscured environment is necessary to heighten
23 the frightening experience typically associated with Halloween-themed activities and to create
24 realistic effects of a caliber expected of a major Hollywood Studio.

25 **CURTAILMENT IN LIEU OF OBTAINING A VARIANCE**

26 15. Universal has considered curtailment of the fog machines and has reduced their
27 usage to the minimum extent feasible in order to create the necessary effects. Elimination of
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1 these machines would prevent Petitioner from creating the special effects necessary for the
2 Halloween event. Such effects are vital to the event's success and entertainment value, and it
3 is not possible to create the desired visual effect without exceeding the opacity limits. It is my
4 understanding that during the past Halloween events Universal did not receive any complaints
5 from adjacent property owners regarding the fog effects, and we do not anticipate that use of
6 the machines this year will result in the creation of a nuisance. Additionally, Universal Studios
7 has a technician onsite every night of the event to monitor the levels and positioning of the fog
8 machines.

9 16. Universal Studios first began holding the Halloween event in the early 2000s,
10 and it has been held annually since at least 2011 (except during the pandemic in 2020). For
11 each year that Universal has received the variance for the Halloween event, Universal has
12 followed the conditions in its variance. Those conditions include procedures for Universal
13 Studios to track any complaints from the event's attendees and to report any health-related
14 complaints to the District. Event attendees will participate in the event on a voluntary basis
15 and will only be exposed to any opacity exceedances for the short duration during which
16 attendees choose to participate in the event. Event attendees also have many platforms through
17 which they may report complaints related to the fog to Universal Studios in real time, including
18 through an online general message system, a smartphone application, by social media outlets,
19 by telephone, or in person to any employee or at a customer service desk.

20 17. Universal has received very few complaints amongst the millions of guests who
21 have attended the event over the past five years. The few complaints related to the fog have
22 been similar in nature for each year Universal Studios has held the event. Universal did receive
23 three complaints from attendees related to the fog generated during the Halloween event in
24 2014, one complaint in 2015, six complaints in 2016, two complaints in 2017, and one
25 complaint in 2018 (and no complaints for the most recent events held in 2019, 2021, and 2022;
26 the event did not take place in 2020 due to the Covid-19 pandemic). After each of those
27 complaints, Universal promptly verified its machines were not over producing fog so attendees
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1 could proceed through the event safely and notified the Air District of those complaints.
2 Universal Studios also promptly notified each complainant of the District’s 1-800-CUT-
3 SMOG complaint number.

4 18. Before granting the variance for the Halloween event in 2017, the Hearing Board
5 held a hearing on August 24, 2017, to consider Universal Studios’ testimony and any public
6 testimony related to the variance request. I and Ms. Aimee Kool, Senior Director of
7 Environmental Health and Safety for Universal Studios Hollywood, testified on behalf of
8 Universal Studios during that hearing. No member of the public testified during that hearing.
9 During that hearing, the Hearing Board discussed the conditions in Universal Studios’
10 variance, including the requirements to post warning signs and report complaints, before
11 unanimously granting Universal Studios’ variance. Universal Studios reviewed its warning
12 signs and determined the warning language used in previous years provides a comprehensive
13 warning that can effectively communicate the necessary warning to all event attendees. The
14 warning signs will state: “Warning: persons with medical sensitivity to fog effects should be
15 aware of the park scare zone.”

16 19. During the Halloween event in 2017, Universal Studios received two customer
17 complaints related to the fog, amongst the thousands of customers that attended the event.
18 Those complaints were reported to the District. All complainants were also notified of the
19 District’s complaint number—1-800-CUT-SMOG. Throughout the event in 2017, Universal
20 Studios took precautions to ensure its fog machines operated at appropriate levels, were
21 positioned in appropriate locations, and were not overproducing fog.

22 20. During the Halloween event in 2018, Universal Studios received one customer
23 complaint related to the fog, amongst the thousands of customers that attended the event.
24 Universal Studios reported that complaint to the District and notified the complainant of the
25 District’s complaint number—1-800-CUT-SMOG. Throughout the event in 2018, Universal
26 Studios took precautions to ensure its fog machines operated at appropriate levels, were
27 positioned in appropriate locations, and were not overproducing fog. Universal Studios also
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1 verified that its warning signs for guests with respiratory sensitivities were placed at
2 appropriate places throughout the event.

3 21. The Hearing Board granted the variance for the event in 2019 after the Hearing
4 Board considered Universal Studios' variance petition on consent at its hearing on August 28,
5 2019. No member of the public testified during that hearing. Universal Studios did not receive
6 any fog-related complaints during the event held in 2019.

7 22. While the Halloween event has been a very important event for the Universal
8 Studios theme park for the last 20 years, Universal Studios did not hold this special event in
9 2020 and therefore did not bring a petition for a short variance in 2020 due to the park's
10 closures during the coronavirus pandemic.

11 23. The Hearing Board granted the variance for the event in 2021 after the Hearing
12 Board considered Universal Studios' variance petition on consent at its hearing on August 19,
13 2021. No member of the public testified during that hearing. Universal Studios did not receive
14 any fog-related complaints during the event held in 2021.

15 24. The Hearing Board granted the variance for the event in 2022 after the Hearing
16 Board considered Universal Studios' variance petition on consent at its hearing on August 24,
17 2022. No member of the public testified during that hearing. Universal Studios did not receive
18 any fog-related complaints during the event held in 2022.

19 25. Other than those complaints received from 2014 through 2018, Universal has
20 not received any other fog-related or health-related complaints through its years of operating
21 the Halloween event. As Universal has done every year it received a variance for the
22 Halloween event, Universal will comply with all conditions in the variance, including posting
23 warning signs, promptly reporting any complaints related to the emissions of fog to the Air
24 District's Inspector, and notifying any complainants of the Air District's complaint number—
25 1800-CUT-SMOG. Universal Studios will also continue to monitor its fog machines
26 throughout the event to ensure the machines produce fog at appropriate levels.

27 **COMPLIANCE PLAN AND SCHEDULE**

26. The special effects will take place during up to 40 scheduled events between August 24 and November 1, 2023, including one night for a test/level set night on August 24, 2023 and one employee preview night on September 5, 2023. This reflects an increase of 6 events compared to 2022, the basis for which is the forecasted demand for the event and consideration of the park’s capacity. Additionally, Universal may schedule up to three additional events during that same timeframe. Universal will inform the District immediately if a decision to hold an extra event night is scheduled. The events will begin at 5:30 p.m. and end at 3:30 a.m. the following day, including warm-up and shut down. Therefore, each event will technically occur over two days; however, an additional day is not affected where events are held on consecutive nights (e.g. events occurring back to back Friday, Saturday, and Sunday consist of three consecutive two-day events over a four-day period). In addition to the August 24 test/level set night and the September 5 employee preview night, events are currently scheduled for September 7, 8, 9, 10, 14, 15, 16, 17, 21, 22, 23, 24, 27, 28, 29, 30, October 1, 4, 5, 6, 7, 8, 11, 12, 13, 14, 15, 18, 19, 20, 21, 22, 25, 26, 27, 28, 29, and 31, 2023. Therefore, fog is currently scheduled to be generated on a total of forty (40) nights carrying into the next morning, covering a total number of up to fifty-one (51) days within a seventy (70) day period (see the Table below). Due to potential unexpected rain and/or the popularity of the event during the currently-scheduled event nights, Petitioner may add up to three additional events within this time-frame through November 1, which may or may not occur on consecutive nights. Thus, fog may be generated on additional days during the period extending from August 24 through November 1, which includes the same seventy (70) day period.

Events	Time Beginning	Time Ending
Thursday, 8/24 (test night)	5:30 p.m.	11:59 p.m.
	12:00 a.m.	3:30 a.m.
Friday 8/25		
Tuesday, 9/5 (employee night)	5:30 p.m.	11:59 p.m.
	12:00 a.m.	3:30 a.m.
Wednesday, 9/6		

Events	Time Beginning	Time Ending
Thursday, 9/7	5:30 p.m.	11:59 p.m.
Friday, 9/8	12:00 a.m.	3:30 a.m.
	5:30 p.m.	11:59 p.m.
Saturday, 9/9	12:00 a.m.	3:30 a.m.
	5:30 p.m.	11:59 p.m.
Sunday, 9/10	12:00 a.m.	3:30 a.m.
	5:30 p.m.	11:59 p.m.
Monday, 9/11	12:00 a.m.	3:30 a.m.
Thursday, 9/14	5:30 p.m.	11:59 p.m.
Friday, 9/15	12:00 a.m.	3:30 a.m.
	5:30 p.m.	11:59 p.m.
Saturday, 9/16	12:00 a.m.	3:30 a.m.
	5:30 p.m.	11:59 p.m.
Sunday, 9/17	12:00 a.m.	3:30 a.m.
	5:30 p.m.	11:59 p.m.
Monday, 9/18	12:00 a.m.	3:30 a.m.
Thursday, 9/21	5:30 p.m.	11:59 p.m.
Friday, 9/22	12:00 a.m.	3:30 a.m.
	5:30 p.m.	11:59 p.m.
Saturday, 9/23	12:00 a.m.	3:30 a.m.
	5:30 p.m.	11:59 p.m.
Sunday, 9/24	12:00 a.m.	3:30 a.m.
	5:30 p.m.	11:59 p.m.
Monday, 9/25	12:00 a.m.	3:30 a.m.
Wednesday, 9/27	5:30 p.m.	11:59 a.m.
Thursday, 9/28	12:00 a.m.	3:30 a.m.
	5:30 p.m.	11:59 p.m.
Friday, 9/29	12:00 a.m.	3:30 a.m.
	5:30 p.m.	11:59 p.m.
Saturday, 9/30	12:00 a.m.	3:30 a.m.
	5:30 p.m.	11:59 p.m.
Sunday, 10/1	12:00 a.m.	3:30 a.m.
	5:30 p.m.	11:59 p.m.
Monday, 10/2	12:00 a.m.	3:30 a.m.
Wednesday, 10/4		
	5:30 p.m.	11:59 p.m.

Events	Time Beginning	Time Ending
Thursday, 10/5	12:00 a.m.	3:30 a.m.
	5:30 p.m.	11:59 p.m.
Friday, 10/6	12:00 a.m.	3:30 a.m.
	5:30 p.m.	11:59 p.m.
Saturday, 10/7	12:00 a.m.	3:30 a.m.
	5:30 p.m.	11:59 p.m.
Sunday, 10/8	12:00 a.m.	3:30 a.m.
	5:30 p.m.	11:59 p.m.
Monday, 10/9	12:00 a.m.	3:30 a.m.
Wednesday, 10/11		
	5:30 p.m.	11:59 p.m.
Thursday, 10/12	12:00 a.m.	3:30 a.m.
	5:30 p.m.	11:59 p.m.
Friday, 10/13	12:00 a.m.	3:30 a.m.
	5:30 p.m.	11:59 p.m.
Saturday, 10/14	12:00 a.m.	3:30 a.m.
	5:30 p.m.	11:59 p.m.
Sunday, 10/15	12:00 a.m.	3:30 a.m.
	5:30 p.m.	11:59 p.m.
Monday 10/16	12:00 a.m.	3:30 a.m.
Wednesday, 10/18		
	5:30 p.m.	11:59 p.m.
Thursday, 10/19	12:00 a.m.	3:30 a.m.
	5:30 p.m.	11:59 p.m.
Friday, 10/20	12:00 a.m.	3:30 a.m.
	5:30 p.m.	11:59 p.m.
Saturday, 10/21	12:00 a.m.	3:30 a.m.
	5:30 p.m.	11:59 p.m.
Sunday, 10/22	12:00 a.m.	3:30 a.m.
	5:30 p.m.	11:59 p.m.
Monday 10/23	12:00 a.m.	3:30 a.m.
Wednesday, 10/25		
	5:30 p.m.	11:59 p.m.
Thursday, 10/26	12:00 a.m.	3:30 a.m.
	5:30 p.m.	11:59 p.m.
Friday, 10/27	12:00 a.m.	3:30 a.m.
	5:30 p.m.	11:59 p.m.
Saturday, 10/28	12:00 a.m.	3:30 a.m.
	5:30 p.m.	11:59 p.m.
Sunday, 10/29	12:00 a.m.	3:30 a.m.
	5:30 p.m.	11:59 p.m.

Events	Time Beginning	Time Ending
Monday, 10/30	12:00 a.m.	3:30 a.m.
Tuesday, 10/31		
	5:30 p.m.	11:59 p.m.
Wednesday, 11/1	12:00 a.m.	3:30 a.m.

27. Universal anticipates that it will achieve final compliance on or before November 2, 2023, the day after the final event date that is currently scheduled completes on the morning of November 1, 2023. Universal will inform the District immediately if a decision to hold an extra event night is scheduled.

EXCESS EMISSIONS AND REDUCTION AND MONITORING THEREOF

28. Emissions are expected to exceed the allowable opacity limit by eighty percent (80%). Petitioner believes that opacity at each fog generating station will reach 100 percent (100%) in some locations close to the machines but will dissipate rapidly.

29. Universal will operate the fog machines for a maximum of ten (10) hours per event, which includes machine warm-up, shut-down and operating hours of the event. In preparation for its event in 2019, I contacted Ultratec, the manufacturer of the Pro-Beam Long Lasting Fog fluid, and Ultratec confirmed that fog machines using Pro Beam fog fluid should operate below 340°C to prevent degradation of the fog fluid. I also contacted the manufacturers of the fog machines that will be used during the Halloween event, and those manufacturers confirmed that their fog machines operate at maximum temperatures below 250°C. Universal Studios will be using the same machines and fog fluid for the event in 2022 as it used in 2019 and 2021.

30. Universal estimates that usage of the fog fluid will not exceed one hundred and eighty (180) gallons per event, even with the use of the 22 additional fog machines this year. This is the same per-event amount of fog fluid for which a variance was granted in 2011, 2012, 2013, 2014, 2015, 2016, 2017, 2018, 2019, 2021 and 2022. Universal will keep daily records

1 of the amount of fog fluid used and said records shall be made available to the District upon
2 request.

3 31. In response to the Board's questions before granting a short variance in 2018,
4 Universal Studios worked with AECOM Technical Services, Inc. ("AECOM") to conduct an
5 industrial hygiene assessment of fog fluid emissions during Universal Studios' 2018
6 Halloween event. That assessment was representative of how Universal Studios' operated its
7 fog machines throughout the entire event in 2019, 2021, and 2022, and Universal Studios will
8 operate its machines in the same manner throughout the event in 2023. That assessment
9 concluded that operations of the fog machines was within the safety guideline thresholds for
10 employees and patrons of the event, and employee and guest exposures to the theatrical fog
11 during the event were and are expected to continue to be at safe airborne levels. Given the
12 results of that assessment and the very few number of complaints received amongst the
13 millions of guests who have attended the event in recent years, guest complainant data provides
14 a representative assessment of the symptomatic theatrical fog health effects to guests.

15 **HARM IF VARIANCE WERE DENIED**

16 32. The effect of a denial of the variance will be the practical closing of a lawful
17 business activity. It would cause Universal to suffer economic loss of \$6-7 million and cause
18 the loss of over fourteen hundred (1,400) temporary jobs if the event were not held. The use
19 of artificially created fog is an integral part of this entertainment event. Without its use,
20 Universal would be limited in, if not precluded altogether from, conducting a successful event.

21
22 I declare under penalty of perjury under the laws of the State of California that
23 the foregoing is true and correct to my personal knowledge.

24 Executed this 24TH day of July, 2023, in the County of Los Angeles, State of
25 California.

26
27 
28 _____
Joseph C. Bellas