State of Utah
Administrative Rule Analysis
Revised June 2022

NOTICE OF PROPOSED RULE		
TYPE OF RULE: New __X_; Amendment ___; Repeal ___; Repeal and Reenact ___		
Title No. - Rule No. - Section No.		
Rule or Section Number:	**R307-313**	**Filing ID: Office Use Only**

Agency Information

1. Department:	Environmental Quality	
Agency:	Air Quality	
Room number:		
Building:	MASOB	
Street address:	195 North 1950 West	
City, state and zip:	Salt Lake City, Utah 84116	
Mailing address:	P.O. Box 144820	
City, state and zip:	Salt Lake City, Utah 84114-4820	
Contact persons:		
Name:	**Phone:**	**Email:**
Bo Wood	385-499-3416	rwood@utah.gov
Ryan Bares		rbares@utah.gov
Please address questions regarding information on this notice to the agency.		

General Information

2. Rule or section catchline:

R307-313. VOC and Blue Smoke Controls for Hot Mix Asphalt Plants silo loading, unloading, and AC tanks

3. Purpose of the new rule or reason for the change (Why is the agency submitting this filing?)**:**

On August 3, 2018 the EPA designated portions of Utah's Wasatch Front as nonattainment for the 2015 National Ambient Air Quality Standard for 8-hour ozone concentrations (83 FR 25776). As a result of this designation, the state of Utah must identify and implement reductions of Volatile Organic Compound emissions in the designated areas as part of its obligations under section 182(b)(A)(i) of the Clean Air Act. This rule is part of the state's ongoing State Implementation Plan to address ground level ozone and is intended to be included in the final submission of the plan.

4. Summary of the new rule or change (What does this filing do? If this is a repeal and reenact, explain the substantive differences between the repealed rule and the reenacted rule)**:**

This rule will require emission reduction technologies to be installed on hot mix asphalt plants operating in Salt Lake, Weber, Davis, Tooele, and Utah counties in an effort to meet the Clean Air Act requirements and assist in attaining health-based air quality standards. Emission capture and control devices will be required to be installed on hot mix asphalt plants silo loading, unloading and associated oil storage tanks subject to the rule, reducing Volatile Organic Compound emissions.

Fiscal Information

5. Provide an estimate and written explanation of the aggregate anticipated cost or savings to:

A) State budget:

This rule is not expected to create additional costs or savings for state government because these plants are already permitted and inspected under existing rules. Inspectors will be able to confirm compliance as part of normal inspection processes.

B) Local governments:

This rule will have no impact on local governments because it does not apply to them.

C) Small businesses ("small business" means a business employing 1-49 persons)**:**

This rule is not expected to have a fiscal impact on small businesses since HMA plants operating in the relevant counties are owned and operated by a business with more than 50 employees.

D) Non-small businesses ("non-small business" means a business employing 50 or more persons)**:**

A DAQ analysis finds that eight non-small businesses presently operate 15 stationary hot-mix asphalt plants in the targeted counties. The cost to install required blue-smoke controls is approximately $339,675 per plant with an additional estimated cost

Commented [DM(AM1]: Has there been any discussion of the impact of the proposed rule to the effect it will have on future stack testing results?

How many HMA plants have to stack test for NOx and VOC?

Due to the nature of some of the technology used to capture the blue smoke-will that technology adversely affect NOx and VOC stack outputs? Has UDAQ evaluated this?

In the case of higher VOC and NOx outputs, will UDAQ re-adjust its stack testing requirements or issue compliance orders for failing a stack test?

Please address and clarify all comments from above.

Commented [DM(AM2]: Need to specify that UDAQ wants controls place on silo loading, unloading and AC tanks

Commented [DM(AM8]: The cost analysis Staker Parson Materials & Construction has calculated for the 4 HMA facilities in our Company under this proposed Rule is included with this Document, using the same format as "Hot Mix Asphalt Cost of Controls Overview Proposed Rule: R307-313"

of $15,100 per year operating cost. The estimated capital costs to install VOC controls on hot oil storage tanks is $171,400 per plant, with approximately $4,000 in annual operating costs. The combined total fiscal impact to these businesses is estimated to be $7,666,125 in initial capital costs and $286,500 per year in ongoing operational costs. A cost of controls analysis conducted by UDAQ staff finds over the 35-year expected life expectancy of controls, the cost of Volatile Organic Compound (VOC) emissions removed is $6,197 per ton of VOC emissions reduced from hot mix asphalt plants and $2,052 per ton of VOC emissions reduced from the installation of tank controls. The combined cost per ton of VOC emissions reduced from the installation of both emission reduction technologies is $3,436. DAQ considers this emission reduction technology to be economically feasible.

E) Persons other than small businesses, non-small businesses, state, or local government entities ("person" means any individual, partnership, corporation, association, governmental entity, or public or private organization of any character other than an ***agency***)**:**

This rule is not expected to have a fiscal impact on persons other than small businesses, non-small businesses, state, or local government entities because it does not apply to them.

F) Compliance costs for affected persons (How much will it cost an impacted entity to adhere to this rule or its changes?)**:**

Compliance with this rule is expected to require each HMA plant to incur an initial capital cost of $571,075 and $19,100 thereafter in annual operating costs.

G) Regulatory Impact Summary Table (This table only includes fiscal impacts that could be measured. If there are inestimable fiscal impacts, they will not be included in this table. Inestimable impacts will be included in narratives above.)

Regulatory Impact Table

Fiscal Cost	**FY2023**	**FY2024**	**FY2025**
State Government	$0	$0	$0
Local Governments	$0	$0	$0
Small Businesses	$0	$0	$0
Non-Small Businesses	$7,666,125	$286,500	$286,500
Other Persons	$0	$0	$0
Total Fiscal Cost	**$0**	**$0**	**$0**
Fiscal Benefits	**FY2023**	**FY2024**	**FY2025**
State Government	$0	$0	$0
Local Governments	$0	$0	$0
Small Businesses	$0	$0	$0
Non-Small Businesses	$0	$0	$0
Other Persons	$0	$0	$0
Total Fiscal Benefits	**$0**	**$0**	**$0**
Net Fiscal Benefits	**$0**	**$0**	**$0**

H) Department head comments on fiscal impact and approval of regulatory impact analysis:

The Executive Director of the Department of Environmental Quality, Kimberly D. Shelley, has reviewed and approved this regulatory impact analysis.

Citation Information

6. Provide citations to the statutory authority for the rule. If there is also a federal requirement for the rule, provide a citation to that requirement:

19-2-104		

Incorporations by Reference Information

7. Incorporations by Reference (if this rule incorporates more than two items by reference, please include additional tables)**:**

A) This rule adds, updates, or removes the following title of materials incorporated by references (a copy of materials incorporated by reference must be submitted to the Office of Administrative Rules; *if none, leave blank*)**:**

Official Title of Materials Incorporated (from title page)	
Publisher	
Issue Date	
Issue or Version	

Commented [DM(AM3]: The stated 35-year life expectancy is not correct, according to HMA manufacturing experts the actual life expectancy is 10 years.

Commented [DM(AM4]: See "Hot Mix Asphalt Cost of Controls Overview
Proposed Rule: R307-313"

Commented [DM(AM5]: Staker Parson disagrees with this stated number from the UDAQ Cost Analysis Paper. We believe incorrect emission factor numbers where used. AP-42 does have emission factor numbers for silo loading/unloading and tank filling, all of which are considerably lower than the one used in UDAQ Cost Analysis. Please Correct

Commented [DM(AM6]: What is the criteria UDAQ uses to qualify something as "economically feasible"? Please address.

Commented [DM(AM7]: Please clarify on how UDAQ calculated this cost.

Commented [DM(AM9]: This is not an accurate statement. Under this Rule the impact from the cost of the Blue smoke and tank installations Rule will impact HMA costs in all the counties mentioned in this Proposed Rule. Please address.

Commented [DM(AM10]: Staker Parson disagrees with UDAQ on its cost analysis based on several factors including using wrong emission factors, assumptions from "industry", and actual cost per ton of VOC saved. Please clarify.

B) This rule adds, updates, or removes the following title of materials incorporated by references (a copy of materials incorporated by reference must be submitted to the Office of Administrative Rules; *if none, leave blank*):	
Official Title of Materials Incorporated (from title page)	
Publisher	
Issue Date	
Issue or Version	

Public Notice Information

8. The public may submit written or oral comments to the agency identified in box 1. (The public may also request a hearing by submitting a written request to the agency. See Section 63G-3-302 and Rule R15-1 for more information.)		
A) Comments will be accepted until:		12/30/2022
B) A public hearing (optional) will be held:		
On (mm/dd/yyyy):	**At** (hh:mm AM/PM):	**At** (place):
12/28/2022 The scheduled hearing will be canceled if no request is received.	11:00 am	Video call link: https://meet.google.com/ozs-cxod-pvn Or dial: (US) +1 848-480-1735 PIN: 353 317 540#

9. This rule change MAY become effective on:	02/02/2023
NOTE: The date above is the date the agency anticipates making the rule or its changes effective. It is NOT the effective date.	

Agency Authorization Information

To the agency: Information requested on this form is required by Sections 63G-3-301, 302, 303, and 402. Incomplete forms will be returned to the agency for completion, possibly delaying publication in the *Utah State Bulletin* and delaying the first possible effective date.			
Agency head or designee and title:	Bryce C. Bird, Director	**Date:**	11/02/2022

R307. Environmental Quality, Air Quality.
R307-313. VOC and Blue Smoke Controls for Hot Mix Asphalt Plants

R307-313-1. Purpose.

Rule R307-313 establishes emission controls and work practice standards for the emissions of blue smoke and volatile organic compounds (VOC) from hot mix asphalt plants silo loading, silo unloading, and associated oil storage tanks.

R307-313-2 Applicability.

Rule R307-313 applies to stationary hot mix asphalt plants and their associated oil storage tanks located in Salt Lake, Davis, Weber, Utah, and Tooele counties with an annual production level greater than or equal to 75,000 tons of hot mix asphalt per rolling 12-month period.

R307-313-3 Definitions.

Terms defined in Section 307-312-3 are incorporated by reference.

"Blue smoke" means a mixture of visible emissions and VOC emissions from HMA plants silo loading, silo unloading and AC tank filling that results from the process of mixing hot oil with aggregate.

"Dryer" means a piece of machinery where aggregate is dried and heated during the asphalt manufacturing process, usually drum or cylinder shaped.

"Load out" means an area used for the loading of material from a silo or a batch tower into a truck or train or other means of transport, often located under

Commented [DM(AM11]: Also need to add a Definition of "Silo Loading", filling of the silo from the drum dryer. Please correct.

Commented [DM(AM12]: Staker Parson will address the following safety concerns for load out processes here: Loadout systems create a safety hazard as all visibility under the silos is removed. There is greater risk, even with camera systems of incorrectly dumping hot asphalt is areas other than a truck bed. This may also create a health hazard to the truck drivers as air flows are disrupted. Please address.

a silo.

"Silo" means a tower used to store material.

"Storage tank" means any storage vessel where oils are heated and stored before mixing with aggregate.

"Warm mix asphalt" means asphalt produced at a temperature at or below 275 degrees F (135 degrees c).

R307-313-4. Blue Smoke and VOC Emissions from Hot Mix Asphalt Plants.

(1). The owner or operator shall install emission capture and control systems that capture and reduce blue smoke and VOC emissions from dryers, conveyors, silos, and load out areas. The owner or operator shall operate emission capture and control systems at all times during the production of hot mix asphalt products, except during the production of warm mix asphalt. Emission capture and control systems shall also reduce VOC emissions from captured blue smoke as verified by the manufacturer of control systems upon installation.

(2). Visible emissions from emission points subject to Rule R307-313-4 shall not exceed opacity limits of 10% at emission points covered by Section R307-313-4 as measured according to 40 CFR 60, Appendix A, Method 9.

(3). Owners or operators whose production consists entirely of warm mix asphalt shall be exempt from the provisions in Section R307-313-4.

R307-313-5. VOC Emissions from Storage Tanks.

(1). Storage tanks shall be equipped with VOC capture and control systems such as a condenser ~~and~~ or a carbon-filled vessel which shall reduce VOC emissions as verified by the manufacturer of capture and control systems upon installation.

(2). Emission points subject to R307-313-5 shall operate with no visible emissions as measured according to 40 CFR 60, Appendix A, Method 9.

R307-313-6. Recordkeeping.

(1). The owner or operator shall:

(a). Retain a copy of the manufacturer's recommendations for proper operation and maintenance of equipment in Sections R307-313-4 and R307-313-5.

(b). Establish a plan for scheduled maintenance based upon these recommendations.

(c). Maintain records showing proper operation and maintenance of equipment in accordance with the manufacturer's recommendations for equipment referenced in Section R307-313-4 and Section R307-313-5.

(d). Maintain records of the temperature at which asphalt products were produced.

(2). These records shall be stored for at least 2 years and shall be made available to the director upon request.

R307-313-7. Compliance Schedule.

The owners and operators of hot mix asphalt plants subject to Rule R307-313 shall comply with R307-313 by May 1, 2023.

KEY: air pollution, volatile organic compounds, VOC, hot mix asphalt, asphalt, aggregate, blue smoke
Date of Enactment or Last Substantive Amendment:
Authorizing, and Implemented or Interpreted Law: 19-2-104

Commented [DM(AM13]: Many asphalt plants can switch back and forth between warm mix and regular asphalt production. Please correct.

Commented [DM(AM14]: Many operations use a combination of Warm Mix and regular Hot mix. Staker Parson recommends "when producing Warm Mix asphalt, Blue Smoke controls do not need to be operational." Please correct.

Commented [DM(AM15]: Please add "or" and delete "and"

Commented [DM(AM16]: The May 1, 2023 deadline is not feasible. A large amount of planning, securing the capital, installation, and shut down/start up criteria has to be in place and this cannot be meet by the stated date. Staker Parson Materials & Construction will have 4 large HMA production facilities to make these changes to with significant capital expenditure. Installations to this degree will require a significant amount of time and costs.