Therriault, John

From: Sent: To: Subject: Attachments: Ted Tiberi <ttiberi@aridtech.com> Tuesday, September 10, 2013,11:31 AM Therriault, John Additional Submittal for ARID Attribute Chart Stage II, ORVR and Vapor Processor.pdf

Hi John,

As a follow-on to my submittal yesterday on R2013-018. I wanted to also submit the attached Attribute Matrix. I will present this matrix at a meeting of the OTC (Ozone Transport Commission) on Thursday of this week in Washington, DC.

Please advise if I may provide any clarification or further information on the material I've submitted thus far. Can you please confirm if the material is allowed late into the proceeding ?

Best Regards, Ted

Ted Tiberi ARID Technologies, Inc. 323 S. Hale Street Wheaton, IL 60187 USA office: 630.681.8500 mobile: 708.557.0297 ttiberi@ARIDtech.com



R13-18

Stage II, ORVR and Vapor Processor Attribute Matrix

Ted Tiberi, ARID Technologies, Inc., www.ARIDtech.com, 12 September 2013

Attribute	(A)	(B)	(C)	
	Decommission Stage II with sole reliance on ORVR	Enhance Stage II & Stage I with Processor	Decommission Stage II & Enhance Stage I with Processor	Comments
Refueling Emissions	Increase	Decrease	Increase	A – C
Storage Tank Emissions 1	Increase	Decrease	Decrease	B≈C
Soil/Groundwater Contamination	Increased Risk	Decreased Risk	Decreased Risk	
Vapor Intrusion	Increased Risk	Decreased Risk	Decreased Risk	
Adverse Health Effects	Increased Risk	Decreased Risk	Somewhat Decreased	A > C > B
Ozone Formation Impact	Increased	Decreased	Decreased	C > B
EJ Burden of Refueling Emissions	YES	NO	YES	
Premature Retiring of Useful Assets	YES	NO	YES	
Decommissioning Expense	YES	NO	YES	
Future Expense Burden of Premium Hardware ²	YES	NO	YES	
Continuous Pressure Monitoring Expense	YES	NO ³	NO	
Conservation of Fossil Fuels	NO	YES	YES	B > C
Energy Savings	NO	YES	YES	B >C
Net Present Value (Saved Fuel – Expense) ⁴	Negative	Positive	Positive	B>C B≈C ⁵
GDF Incentive to maintain "tight site"	NONE	LARGE	LARGE	
Non-Road Emissions Impact 6	Increased	NO EFFECT	Increased	A = C
Utility of Continuous Pressure Monitoring	NONE	LARGE	LARGE	
GDF Product/Service Differentiation	NONE	LARGE	LARGE	

² Dripless Nozzles, low permeation hoses, continuous pressure monitoring

⁶ Non-Road emissions generated during refueling of gas cans, motorcycles, boats, snowmobiles; ORVR will never be used on these tanks

¹ Includes emissions during bulk tanker loading and in the interval between tanker deliveries

³ Included with ARID processor

⁴ Capital equipment purchase and "shared savings business model" available

⁵ Need to confirm with field testing; savings = f (RVP, Temp, V/L, GDF Flow Profile)