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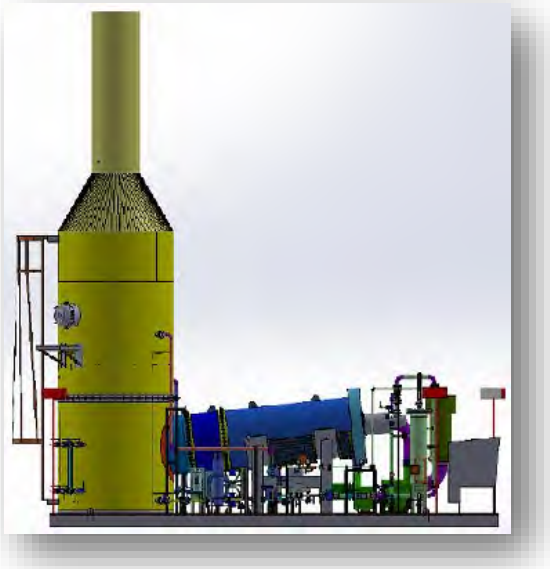
Introduction

AguaRaider, LLC is a Texas corporation with the home office in Uvalde, TX. The company has a patent pending process for disposal of oil & gas and other industrial wastewaters. The process can reduce the wastewater volume by as much as 90%, depending on a number of factors. The process will save costs of transport and conventional disposal for exploration & production operators and other industrial companies. The AguaRaider Unit (ARU) disposal process uses a direct evaporation process for disposal of the wastewater, using natural gas or other gas source. The physical size of the ARU unit is 15 feet wide, 45 feet long and 45 feet total height.

AguaRaider Direct Evaporation Process

Please note the graphic to the right for the description of the AguaRaider Process.

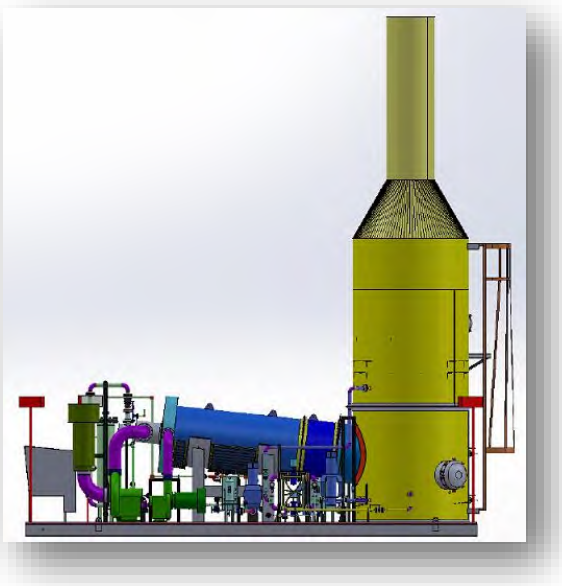


The grey structure to the far right contains the process PLC (programmable logic controller) and operator MMI (man-machine interface). The process system is automatically controlled and only requires operator oversight. The control system will monitor using various flowmeters and temperature thermocouples for system operation, % efficiency and other factors. Key operational parameters are captured and sent via satellite to the PetroCloud for remote monitoring and control. The system also contains a camera for a visual (via PetroCloud) of the PLC enclosure and MMI. Alerts and alarms are locally displayed on the MMI and remotely communicated via PetroCloud. A status light within the enclosure and horn alert the operator to an alarm condition.

The blue center structure is the firetube which receives the natural gas or other gas source, typically provided with a BTU value greater than 1,000. A defined volume

of air is delivered into the firetube by series of two blowers to heat the air. The heated air is directed into the vertical stack (green structure).

Source wastewater is provided via a storage tank or external pump with sufficient pressure to feed the on-skid system feedwater pump. The feedwater pump delivers wastewater into the green vertical stack at the approximate location of the top of the cage ladder.



The wastewater is sprayed directly into the hot air from the firetube and as much as 90% evaporates, forming a steam plume out the top of the stack. The remaining approximate 10% settles to the bottom of the stack as a liquid brine concentrate. A portion of the liquid brine concentrate is recycled back into the stack at an intermediate location on the stack to further evaporate wastewater, using an on-skid pump.

The level of liquid brine concentrate within the stack is approximately 3 feet. The liquid brine concentrate is pumped, via an on-skid pump, outside the process skid to a pit or container.

The specific % efficiency of wastewater evaporation is determined by the TDS (total dissolved solids) of the source wastewater, BTU value of the gas source and a number of other factors. AguaRaider is provides wastewater pretreatment technology module to allow the evaporation of source wastewater with higher TDS concentrations (>75,000 ppm).

Regulatory Compliance

The source wastewater contains organic and inorganic constituents that will have been sampled and analyzed to assess the quality of the wastewater. The organics of the wastewater and natural gas are used to model the air emissions for the air

quality requirements in states that the ARU will be located. Currently, the ARU project site location in the Eagle Ford Basin of South Texas meets the Permit-By-Rule regulatory requirement within Texas. Preliminary modelling of the air emissions for wastewater sources in other states indicate that the ARU is below the limits for total VOCs (volatile organic carbon) and HAPs (hazardous air pollutants in multiple states.

With AguaRaider Wastewater Pretreatment Module, the organics in the feed wastewater can be reduced as much as 90%. The result is organic emissions which are significantly less than the most stringent state emissions standards for VOCs and HAPs.

The TDS within the source wastewater are contained in the liquid brine concentrate and will be disposed of. AquaRaider is currently evaluating the addition of a Brine Crystallizer Unit to further remove water from the brine and produce a solid material.

Regulatory Permits will be required in the project location and states for air quality and potentially waste management. Specific states may have other requirements under water management regulation.

Comparison to Other Evaporative Processes

AguaRaider has expended considerable time and expense to develop an evaporative process that avoids the pitfalls experienced by many other companies using evaporative type technologies. The ARU process was designed to be as simple as possible using heated air rather than heated or exchange surfaces that others have employed. Evaporating source wastewaters with elevated concentration of TDS may be prone to scaling and deposition problems which have plagued other companies. Using heated air and direct evaporation, rather than heated surfaces, minimizes scaling and deposition.

AguaRaider has chosen not to capture the steam plume, as other companies have done. ARU was designed to dispose of wastewaters, such as oil & gas produced water, where the need to reuse that water does not exist. After drilling & fracking,

the oil & gas production wells generate a volume of water per BBL (barrel) of oil or CF (cubic foot of gas). This water volume in oil production is sometimes called "water cut" or the ratio of water produced compared to the volume of total liquids produced. The water cut in waterdrive reservoirs can reach very high values and can vary widely from one basin to another.

Summary

AguaRaider's Direct Evaporation Process was designed and manufactured to provide an efficient and cost effective solution for the disposal of oil & gas and other industrial wastewaters. For the past 19 months, AguaRaider has operated a full-scale production unit in South Texas to develop the technology. The AguaRaider process design effectively and efficiently evaporates and disposes of wastewater within an economic model that is typically less than the cost of transport and conventional SWD (saltwater disposal). The AguaRaider Direct Evaporation Process can significantly reduce the volume of wastewater deposited into the earth using SWDs. The ARU can also reduce the non-technical risks of transport trucks safety and liability, as well as reduce the damage to road and highway infrastructure.