

## Nancy Koon (adpce.ad)

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**From:** Terry Liu (adpce.ad)  
**Sent:** Thursday, November 17, 2022 2:52 PM  
**To:** Nancy Koon (adpce.ad); Jessica Sears (adpce.ad)  
**Subject:** FW: Exploratory Ventures - P.E.'s Certification for Design Calculations (AFIN: 47-01073)  
**Attachments:** Page 37\_EV\_WWTP Specs 02530\_Final\_Rev2\_Edited\_Nov-17-2022.pdf; Page 37\_EV\_WWTP Specs 02530\_Final\_Rev2\_Redline\_Nov-17-2022.pdf

**Follow Up Flag:** Follow up  
**Flag Status:** Flagged

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**From:** David Carstens [<mailto:dcarstens@harborenv.com>]  
**Sent:** Thursday, November 17, 2022 2:50 PM  
**To:** Terry Liu (adpce.ad); Andrew Rike  
**Subject:** RE: Exploratory Ventures - P.E.'s Certification for Design Calculations (AFIN: 47-01073)

Hi Terry:

The revised pages are attached (edited and redline versions).

Thanks.

David

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**From:** Terry Liu (adpce.ad) <[Terry.Liu@adeq.state.ar.us](mailto:Terry.Liu@adeq.state.ar.us)>  
**Sent:** Thursday, November 17, 2022 2:35 PM  
**To:** David Carstens <[dcarstens@harborenv.com](mailto:dcarstens@harborenv.com)>; Andrew Rike <[arike@harborenv.com](mailto:arike@harborenv.com)>  
**Subject:** RE: Exploratory Ventures - P.E.'s Certification for Design Calculations (AFIN: 47-01073)

Hi David,

I think that it should be 21 m<sup>3</sup> instead of 5 m<sup>3</sup>. Would you please double check it?

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**From:** David Carstens [<mailto:dcarstens@harborenv.com>]  
**Sent:** Thursday, November 17, 2022 1:45 PM  
**To:** Terry Liu (adpce.ad); Andrew Rike  
**Subject:** RE: Exploratory Ventures - P.E.'s Certification for Design Calculations (AFIN: 47-01073)

Hello Terry:

Per your request, I have corrected the typographic errors on page 02530-37 of the technical specifications (Section L). The capacity of chlorine tank DT4 is now specified as 4 m<sup>3</sup> (5,550 gallons), which is consistent with the information provided on page F-29 of the process description (Section F) and Sheet C4 of the construction drawings (Section L).

An edited version of page 02530-37 and a redline version of page 02530-37 are enclosed for your review.

Please contact me if you have any questions or comments. Thank you.

David

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**From:** Terry Liu (adpce.ad) <[Terry.Liu@adeq.state.ar.us](mailto:Terry.Liu@adeq.state.ar.us)>  
**Sent:** Thursday, November 17, 2022 12:59 PM  
**To:** David Carstens <[dcarstens@harborenv.com](mailto:dcarstens@harborenv.com)>; Andrew Rike <[arike@harborenv.com](mailto:arike@harborenv.com)>  
**Subject:** RE: Exploratory Ventures - P.E.'s Certification for Design Calculations (AFIN: 47-01073)

Good Afternoon David,

During the technical review, it stated that One bulk Chlorine Storage Tank, M2DT4, will be operated in the wastewater treatment building. The capacity of the tank will be **21 m<sup>3</sup>** (5,550 gallons) according to the Section E, 5.3 Chlorine system, wastewater building, page F-29 and Section L, Sheet C4. However it has **4 m<sup>3</sup>** for chlorine tank based on Section L, page 02530-37, 3.11 Chlorine system, wastewater building.

Would you please provide the update page for this?

Thanks,  
Terry Liu

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**From:** David Carstens [<mailto:dcarstens@harborenv.com>]  
**Sent:** Wednesday, November 9, 2022 11:12 AM  
**To:** Water Permit Application  
**Cc:** Terry Liu (adpce.ad)  
**Subject:** Exploratory Ventures - P.E.'s Certification for Design Calculations (AFIN: 47-01073)

Hello Mr. Liu:

This email is submitted on behalf of Exploratory Ventures, LLC in Osceola, Arkansas (AFIN: 47-01073).

Per your request, the P.E.'s certification for the design calculations for the wastewater facilities is enclosed.

Please insert the certification at the beginning of Section F of the NPDES permit application.

Please contact me if you have any questions or need additional information. Thank you.

*David Carstens*

David Carstens, Sr. Project Manager  
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Welded carbon steel leg supported dry lime storage silo	Qty, one (1) 60,000lbs storage capacity
Screw type feeder	Included
Level switch	Included. 3 units.

Table 74. Lime slurry tank

Slurry tank	Data
Item	DT 3.2
Units	1
Total volume	4 m <sup>3</sup> (1000 gallons)
Material	FRP
Lime slurry concentration	10% maximum
Level switch	Included. 2 units

Table 75. Recirculation pumps

Recirculation pump	Data
Item	DAP 3.X
Units	1+1 Stand by
Unit flow rate	10 m <sup>3</sup> /h*
Total flow rate	10 m <sup>3</sup> /h*
Head	2 bar

### 3.11 CHLORINE SYSTEM, WASTEWATER BUILDING.

Table 76. Chlorine tank

Chlorine tank	Data
Item	DT 4
Units	1
Total volume	21 m <sup>3</sup> (5,550 gallons)
Material	FRP
Low Level switch	Included
Level transducer	Included

Table 77. Recirculation pumps

Recirculation pump	Data
Item	DAP 4.X
Units	1+1 Stand by
Construction	Horizontal with baseplate
Unit flow rate	m <sup>3</sup> /h *
Total flow rate	m <sup>3</sup> /h *
Head	2 bar

Welded carbon steel leg supported dry lime storage silo	Qty, one (1) 60,000lbs storage capacity
Screw type feeder	Included
Level switch	Included. 3 units.

Table 74. Lime slurry tank

Slurry tank	Data
Item	DT 3.2
Units	1
Total volume	4 m <sup>3</sup> (1000 gallons)
Material	FRP
Lime slurry concentration	10% maximum
Level switch	Included. 2 units

Table 75. Recirculation pumps

Recirculation pump	Data
Item	DAP 3.X
Units	1+1 Stand by
Unit flow rate	10 m <sup>3</sup> /h*
Total flow rate	10 m <sup>3</sup> /h*
Head	2 bar

### 3.11 CHLORINE SYSTEM, WASTEWATER BUILDING.

Table 76. Chlorine tank

Chlorine tank	Data
Item	DT 4
Units	1
Total volume	<del>4</del> <u>21</u> m <sup>3</sup> ( <del>1000</del> <u>5,550</u> gallons)
Material	FRP
Low Level switch	Included
Level transducer	Included

Table 77. Recirculation pumps

Recirculation pump	Data
Item	DAP 4.X
Units	1+1 Stand by
Construction	Horizontal with baseplate
Unit flow rate	m <sup>3</sup> /h *
Total flow rate	m <sup>3</sup> /h *
Head	2 bar