Liquid Effluent Collection System General Permit -

Response to Comments

Summary of Changes:

The specific comments and responses delineated in this Response to Comments reflect the formal public comment period for the Liquid Effluent Collection System (LECS) General Permit (GP) between September 23, 2025 - October 23, 2025. A summary of the resulting changes to the LECS GP are outlined below:

- Change the Septic Tank Effluent Pump (STEP) design requirements to further clarify the pump tank reserve volume (LECS GP Part B(2)(C)(2)(b));
- Change the general requirements to clarify that an LECS project may contain elements of both a STEP and Septic Tank Effluent Gravity (STEG) design (LECS GP Part A(3)(C));
- Change the STEG design requirements to cite the specific testing method location in the LECS GP for negative air pressure tests of manholes (LECS GP Part B(2)(B)(9)(f));
- Change to LECS definition to clarify sub-definitions of "dispersal" and "secondary treatment system" (LECS GP Part A(1)(E));
- Change to STEP definition to clarify sub-definitions of "pump vault" and "pump chamber" (LECS GP Part A(1)(L));
- Change to installation requirements to further specify the qualifications of a contractor completing construction (LECS GP Part A(6)(B));
- Change to STEP design requirements to specifically distinguish and define the term "cover" (LECS GP Part B(2)(C)(3)-(4)); and
- Change to STEP design requirements to further clarify the tank maximum depth (LECS GP Part B(2)(C)(5)(a)(ii)).

Comments:

Comment 1: ADEQ has received multiple comments that critique the associated fees. The central objection is that the proposed annual fees and alleged mandatory yearly renewal are unwarranted and violate established General Permit (GP) practices. The proposed fee of $1,470 (or more) is seen as an exorbitant increase over the current $290 reporting fee assessed for the Type 4.23 general permit. Commenters also stress that General Permits, governed by rules like R18-9-A303, typically require only a one-time permitting fee and a low annual reporting fee, not high annual renewal fees. They argue the proposed fee structure is inappropriately patterned after expensive individual permits, not simplified GPs, and is unjustified given the agency is only reviewing operator-submitted performance plans. Commenters state that the renewal fees must be removed to align the permit with the standard, cost-effective structure of other General Permits.

ADEQ Response 1: ADEQ appreciates the comments. The LECS GP is a lifetime permit and is not renewed annually or subject to a renewal fee. Part A(4)(F)(1) of the LECS GP states "[c]overage under this general permit is valid for the operational life of the liquid effluent collection system or otherwise is subject to the transition requirement in A.R.S. § 49-245(H), whichever occurs first". Accordingly, there is no re-permitting process or fee.

Commenters may, instead, be referring to the annual fee of $1,470 for an LECS with a design flow of 2,999 gpd or less, with each increment of 15,000 gpd of effluent line incurring an additional $1,470 (*see* LECS GP Appendix 1(C)(2)). The annual fees are based on ADEQ's cost estimates for program operations including inspections, database management and review of monitoring and reporting data. ADEQ commonly collects annual fees on permits that require more staff time. In fact, the Type 4.23 general permit contains an annual fee associated with the annual report. Other water quality permits also have annual fees including Individual Aquifer Protection Permits (APPs), Arizona Pollutant Discharge and Elimination System (AZPDES) permits, Individual Reclaimed Water permits, and Underground Injection Control (UIC) permits (*see* R18-14-104).

Given the complex nature of an LECS GP, especially when compared to other on-site wastewater treatment facility general permits in the program, ADEQ oversight of the system installation and performance is vital. ADEQ has authority to inspect the permitted facility (A.R.S. § 41-1009) in addition to inspection authority at the facility site before construction (R18-9-A301(D)(1)(a)) and at the constructed facility prior to issuance of a Discharge Authorization (R18-9-A301(D)(2)(a)). Additionally, the reporting requirements for the LECS GP tie the system into existing reporting frameworks (*see* R18-9-E323(G) and A.R.S. § 49-245(E)), creating a larger dataset and greater Departmental responsibility. Additionally, A.R.S. § 49-245(G) recognizes the need for distinct fees for the LECS GP and directly authorizes ADEQ to "establish fees" for the LECS GP. Therefore, the annual fee for the LECS GP ensures sufficient revenue for ADEQ to conduct this post-permitting work and is consistent with ADEQ's authorizing statute for GPs.

Comment 2: Why is the Licensing Time-Frame so long?

ADEQ Response 2: ADEQ appreciates the comment. The Licensing Time-Frame (LTF) for the LECS GP is 42 days for administrative completeness review and 94 days for substantive review, with a combined time-frame of 136 days. This LTF is adopted directly from the established Aquifer Protection Permit (APP) Complex Combined LTF, which applies to "[f]our or more Type 4 General Permits" (18 AAC 1, Table 10). Given the fact that a system designed as either a STEG or STEP system will require permitting in combination with an array of Type 4 general permits for treatment and disposal, ADEQ determined that the Complex Combined LTF was appropriate for the LECS GP.

Comment 3: Will this permit be available for use by delegated agencies for flows less than 24,000 gpd?

ADEQ Response 3: ADEQ appreciates the comment. ADEQ is not currently planning to delegate the LECS GP to partner agencies.

Comment 4: ADEQ received comments regarding existing Proprietary Product Listings.

ADEQ Response 4: ADEQ appreciates the comments. The Proprietary Product Listing (PPL) process is not changing as a result of the LECS GP.

Comment 5: If I already have a Type 3 Reclaimed Water Permit, will I need to look into the LECS-GP?

ADEQ Response 5: ADEQ appreciates the comment. Holding a Type 3 Reclaimed Water Permit does not, in and of itself, require the permit holder to look into the LECS GP. For specific questions regarding how the upcoming LECS GP may affect current permits, including a Type 3 Reclaimed Water Permit, please contact ADEQ's APP general permitting program at: onsitewastewater@azdeq.gov.

Comment 6: Does the Operator need to be certified by the manufacturer?

ADEQ Response 6: ADEQ appreciates the comment. The LECS GP requires the system to be "operated under the supervision of a qualified operator" (LECS GP Part D(2)(B)). The requirements for the qualified operator (prescribed in Part D, Section 2 of the GP and defined in Part A, Section 1 of the GP) do not require the operator to be certified by the manufacturer. The operator is defined as "a person who controls the functioning of a liquid effluent collection system designed as a septic tank effluent gravity system or a septic tank effluent pump system. For the purpose of this general permit, an operator is not the same as "certified operator" or "operator" as defined in A.A.C. R18-5-101" (LECS GP Part A(1)(F)).

However, pursuant to A.R.S. § 49-245(E), all on-site wastewater treatment general permits with a design flow between 3,000 and 74,999 gpd must be "installed by an installer that is certified by the technology manufacturer and…operated by a service provider that is certified by the technology manufacturer". A service provider, in this context, refers to R18-9-A309(C)(2)(d) (requiring "certification that a service contract for ensuring that the facility is operated and maintained to meet the performance and other requirements of the applicable general permits exists for at least one year"). For the purpose of the LECS GP, a service provider is someone that conducts routine operation of system components specific to the manufactured elements of the STEP or STEG system. Therefore, a STEG or STEP system over 3,000 gpd must have a qualified operator as well as a manufacturer-certified service provider. To meet this requirement,

both the operator and service provider may be the same person, if the applicable requirements are met.

Comment 7: Some systems we install in warmer regions have been installed 18" under the surface or shallower if we can show we need the grade in a gravity system. Can we submit a variance if a shallower line is needed?

ADEQ Response 7: ADEQ appreciates the comment. Yes, a variance for a shallower line may be submitted. The standard design requirements of the LECS GP, specifically related to freezing, stipulates that system components be buried at a minimum of 2 feet below the surface or the frost line (LECS GP Part B(2)(A)(4)(a)). However, pursuant to LECS GP Part B, Section 3, the applicant may request a feature of improved or alternative technology, design, installation, or operation that differs from a requirement in the general permit, which may be approved at ADEQ's discretion.

Comment 8: Most installers use a PVC check rather than a brass swing check valve.

ADEQ Response 8: ADEQ appreciates the comment. The design requirements for the STEP design stipulate pump design to include "at least one brass swing check valve" (LECS GP Part B(2)(C)(1)(h)). Pursuant to LECS GP Part B, Section 3, the applicant may request a feature of improved or alternative technology, design, installation, or operation that differs from a requirement in the general permit, which may be approved at ADEQ's discretion.

While developing the LECS GP, ADEQ consulted with subject matter experts and industry professionals and conducted thorough review of applicable state permits and all best available standards and knowledge. From that collaboration and analysis, ADEQ determined the brass swing check valve as the most appropriate material. PVC check valves present concerns such as pressure failure. ADEQ therefore has determined that the brass swing check valve is the appropriate technology.

Comment 9: Some cities allow for STEP systems where the pump is in the second compartment of the septic tank. Can this be an option, dependent on the circumstances? It seems two septic tanks would be required per this general permit?

ADEQ Response 9: ADEQ appreciates the comment. The requirements for the STEP design stipulate pumps to be located "in a separate tank downstream of the septic tank" (LECS GP Part B(2)(C)(2)(a)). Pursuant to LECS GP Part B, Section 3, the applicant may request a feature of improved or alternative technology, design, installation, or operation that differs from a requirement in the general permit, which may be approved at ADEQ's discretion.

Comment 10: ADEQ has received several comments regarding the appropriate calculation for pump tank reserve volume; specifically, whether it should be based on a fixed daily volume per

residence, similar to municipal grinder pump basins (e.g., 220 or 240 gpd/residence), or on the product of average persons per residence (e.g., 2.5) and 80 gallons per person per day. The commenters argue that the 80 gpd per person flow rate is unsuitable for Effluent Collection Systems as it is designed for Individual Permits and sewage collection systems, recommending that ADEQ instead utilize all other applicable flows from Table 1.

ADEQ Response 10: ADEQ appreciates the comments. The requirements for the STEP design stipulate the volume for pump tanks to accommodate "bottom depth below maximum drawdown, maximum design dose including any drainback, volume to high water alarm, and a reserve volume above the high water alarm level that is at least equal to the daily design flow volume" (LECS GP Part B(2)(C)(2)(b) (with updated language clarifying the reserve volume)). To explain this requirement, it's important to understand the nature of an LECS project. An LECS project includes two categories of facility design: 1) the treatment equipment (Type 4.02 - 4.22 GP); and 2) the conveyance equipment and piping (the LECS GP). The treatment equipment must be designed using the current method of determining design flow which is based upon 150 gpd/bedroom (*see* R18-9-A314 for residential designs) and Table 1 unit values (for non-residential designs).

The design flow for the conveyance equipment and pipes, however, must be determined by the 80 gallons per person per day for discharges (*see* LECS GP Part B(2)(A)(1) and Table 1). While developing the LECS GP, ADEQ consulted with subject matter experts and conducted thorough review of applicable state permits and all best available standards and knowledge. As a result of that collaboration and analysis, ADEQ determined that use of Table 1 for the effluent lines will result in improper over-sizing of the effluent lines. Therefore, the LECS GP stipulates that design of effluent lines is based on an 80 per person per day standard, while all other components of the system design will follow Title 18, Chapter 9, Article 3, Table 1. However, pursuant to LECS GP Part B, Section 3, the applicant may request a feature of improved or alternative technology, design, installation, or operation that differs from a requirement in the general permit, which may be approved at ADEQ's discretion

Comment 11: Does the entire STEP tank need to handle a 2500lb load or just the lid? Some tanks would be far from a drivable surface, and would not see traffic. If it's just the lid, then is this simply a 'heavy-duty polylok' lid?

ADEQ Response 11: ADEQ appreciates the comment. The requirements for the STEP design stipulate that covers be "capable of withstanding a 2500-pound load for 60 minutes with a maximum deflection of ¾ inches" (LECS GP Part B(2)(C)(4)(f)). This requirement applies to the lid itself. ADEQ updated the permit to clarify that covers are lids. Furthermore, the tank construction design requirements stipulate that "tanks shall be structurally designed to withstand all anticipated earth or other loads" (LECS GP Part B(2)(C)(3)(a)), which accounts for some load

dissipation from the cover. The LECS GP does not specify a particular tank cover manufacturer, and the applicant is free to utilize any product that meets the requirements.

Comment 12: I've seen a small system of 10 homes function with a 1.5" main. Perhaps a smaller diameter can be used with a variance if there is need for this?

ADEQ Response 12: ADEQ appreciates the comment. The requirements for the STEP design stipulate that the collector pipe "shall be at least 2 inches in diameter as long as the minimum velocity of 1 foot per second can be demonstrated" (LECS GP Part B(2)(C)(8)(c)). Pursuant to LECS GP Part B, Section 3, the applicant may request a feature of improved or alternative technology, design, installation, or operation that differs from a requirement in the general permit, which may be approved at ADEQ's discretion.

Comment 13: The current rule states that a sewage collection system permit is required from the point where the transported flow reaches 3,000 gpd. LECS parameters beginning at zero (0) gpd are in conflict with this requirement.

ADEQ Response 13: ADEQ appreciates the comment. The LECS GP is distinct from the Type 4.01 Sewage Collection System General Permit and is therefore not constrained by the associated requirements in A.A.C. R18-9-E301. The LECS GP applies from 0 gpd - 74,999 gpd.

Comment 14: ADEQ received several comments concerning the impact of the proposed delegation plan on counties that have authority for Type 4.03 through 4.22 (less than 3,000 gpd) and Type 4.23 (less than 24,000 gpd) GPs; specifically, when an LECS is used. Commenters contend that the application requirements of the LECS GP create a bifurcation of permitting for flows up to less than 24,000 gpd. They continue by pointing out that, under the proposed plan, a county would be responsible for issuing the permit for the treatment and dispersal portion of the system, while ADEQ would retain responsibility for issuing the permit for the LECS portion.

ADEQ Response 14: ADEQ appreciates the comments. ADEQ does not intend for any permitting bifurcation between the LECS GP and the associated Type 4 permits. Instead, if an applicant applies for an LECS GP, ADEQ would permit the entire system including treatment and disposal in addition to collection. ADEQ is not currently planning to delegate the LECS GP to partner agencies.

Comment 15: A single, centralized pump station or grinder lift station to send effluent into a pressure line toward the treatment train is a viable alternative design, and this this is functionally equivalent to current methods since both designs result in a downstream treatment train and dispersal field, regardless of whether the initial waste contains solids or not.

ADEQ Response 15: ADEQ appreciates the comment. The commenter suggests an alternative design, upon the premise that a STEP and STEG system cannot be combined for a single LECS

project. This is not the case. An applicant may use elements of both a STEP and STEG system for one LECS project. ADEQ updated the LECS GP to clarify this possibility (*see* LECS GP Part A(3)(C)).

Comment 16: The Effluent Collection System, after STEG entry from a single facility, is a sealed and pressurized system, not affected by wet or dry weather flows. Please rethink this general design requirement in the permit language.

ADEQ Response 16: ADEQ appreciates the comment. The general requirements for LECS design stipulates an accommodation for peak wet weather flow (*see* LECS GP Part B(2)(A)(1)). The system is not entirely sealed, and there is a potential for infiltration at manhole covers (if applicable) and during certain cleanouts. Therefore, ADEQ has determined that the requirement is appropriate.

Comment 17: The STEG design section assumes that there will be long gravity collection runs requiring manholes and collection pipe size changes. This is incorrect thinking according to all LECS presentations I have seen. Please rethink and modify this entire section to be in line with the overall concept.

ADEQ Response 17: ADEQ appreciates the comment. The requirements for the STEG design only stipulates that manholes are required when effluent lines are 8 inches or larger in diameter (*see* LECS GP Part B(2)(B)(9)(a)). While developing the LECS GP, ADEQ consulted with subject matter experts and conducted thorough review of applicable state permits and all best available standards and knowledge. As a result of that collaboration and analysis, ADEQ determined that the requirement is appropriate.

Comment 18: ADEQ received comment on the STEG effluent line requirements; specifically, that the 3 foot minimum depth is too restrictive. They continued by offering that a more appropriate requirement would be for the effluent lines to be buried below the frost depth and properly protected if under trafficked areas. Furthermore, commenters offered that since STEG systems are designed to drain completely and do not hold water in the pipes, they are not susceptible to freezing, even if placed above the frost line. Therefore, requiring burial at 3 feet, or even just below the frost depth, is unnecessarily stringent for these particular systems.

ADEQ Response 18: ADEQ appreciates the comments. The requirements for the STEG design stipulates that "[a]ll effluent lines shall be covered with at least 3 feet of earth cover" (LECS GP Part B(2)(B)(2)). While developing the LECS GP, ADEQ consulted with subject matter experts and conducted thorough review of applicable state permits and all best available standards and knowledge. As a result of that collaboration and analysis, ADEQ determined that 3 feet is standard for sewer lines, which ADEQ determined to be of appropriate equivalence for effluent lines, and that 3 feet serves as a conservative and protective requirement for effluent collection systems. LECS pipes are subject to heavy traffic loads, both during construction and after, which

creates a higher potential for damage if the pipes are too shallow. Comparatively, the freezing requirements can be found in the general design requirements section which require specific burial depths for all system components (*see* LECS GP Part B(2)(A)(4)).

Comment 19: The entire STEG system, including manholes and any gravity sewer runs, if used, must pass a vacuum test with no pressure loss before acceptance.

ADEQ Response 19: ADEQ appreciates the comment. The requirements for the STEG design stipulates manhole testing, when manholes are required (*see* LECS GP Part B(2)(B)(9)(f)). The negative air pressure test is only appropriate for manholes, not sewer lines, as the commenter suggests. As a result of the comment, ADEQ updated the manhole section of the LECS GP with the exact citation to Part C(1)(A)(1)(c)(v) which lists test protocols for manhole testing, including a negative air pressure test.

Comment 20: It must be made clear that "Low-Pressure Air" test results of zero vacuum loss is the only acceptable passing result for field leakage testing of the effluent line.

ADEQ Response 20: ADEQ appreciates the comment. The low-pressure air testing method referenced by the commenter (*see* LECS GP Part C(1)(A)(1)(c)(ii)) is specific to gravity effluent lines. Vacuum tests (such as "zero vacuum loss"), on the other hand, are conducted for manholes. In accordance with the ASTM method, as incorporated into the LECS GP, zero vacuum loss is not the accurate standard for field leakage testing of an effluent line.

Comment 21: The R18-9-A312(G) fee of $1,470 seems high compared to the current fee for all variance requests for delegated Type 4 General Permits of $370. Please adjust to a level that passes the straight face test.

ADEQ Response 21: ADEQ appreciates the comment. To clarify, the fee the commenter refers to in Appendix 1 is the "Alternative Design, Installation, Operational Features Request" fee, referring to LECS GP Part B, Section 3. Although the concept is derived from, and incorporates the requirements of R18-9-A312(G), the request is distinct from that rule and is not accurately referred to as an "-A312(G) fee". The amount of the fee is greater than for -A312(G) requests for other Type 4 GPs because of the complexity of LECS systems and the complex nature of this GP, itself. To adequately account for, and support, ADEQ staff review time for each request, the fee reflects the anticipated time staff need to make a determination on a variance request.

Comment 22: Some fees in Appendix 1, Section D are duplications of the tank fees in Table 1 of this section. Please remove duplicate fees.

ADEQ Response 22: ADEQ appreciates the comment. The fees in Appendix 1, Section D are specific to treatment and disposal technology fees under other, associated, Type 4 GPs, whereas the fees in Table 1 are specific to collection/conveyance under the LECS. For example, the

pump tank fee in Table 1 is specific to LECS because pump tanks are not covered under other, existing, Type 4 GP fees.

Comment 23: It appears that the proposed fees for review of an LECS are modeled after the 4.01 General Permit for Sewage Collection Systems. The 4.01 is an Individual permit and has much more extensive review and oversight criteria than would be required for a 4.23 GP. There are noted differences in the fees for the 4.01 and the 4.23 general permits. The 4.01 has fees based upon design flow increments of 50,000 gpd, whereas 4.23 has fees based upon increments of 15,000 gpd, and the 4.01 has no annual fee. The concept of the General Permits is to utilize technologies that are listed under Type 4 General permits. These technologies are applied through prescriptive design criteria and therefore somewhat streamlined, with the intention that adherence to prescriptive design criteria allows systems to be permitted and approved relatively easily, more efficiently and more quickly than an Individual Permit.

ADEQ Response 23: ADEQ appreciates the comment. The Type 4.01 permit is a General Permit, not an Individual Permit as the commenter suggests, and is therefore an appropriate template for what certain collection requirements may be. Furthermore, the Type 4.23 GP is an administrative permit, meaning it does not guide design, installation, and operation in the same manner as other Type 4 GPs, rather it requires the applicant to comply with the applicable requirements in rule and under the specific Type 4 GPs sought for the treatment works and disposal works used in the design of the on-site wastewater treatment facility. The Type 4.23, rather, sets certain requirements (such as nitrogen control, Notice of Intent to Discharge application submission elements, and reporting requirements) for systems permitted under other Type 4 GPs that exceed 3,000 gpd to less than 24,000 gpd (or less than 75,000 gpd pursuant to A.R.S. § 49-245(E)). Therefore, ADEQ has determined that it is not appropriate to model the LECS GP after a Type 4.23 GP.

Comment 24: The 4.23 GP permit is capped at $5,340 with a maximum of $11,340, which applies to on-site wastewater treatment facilities with up to "[t]hree treatment technologies and disposal methods consisting of technologies or designs that are covered under other Type 4 general permits" and "[t]wo onsite wastewater treatment facilities" (A.A.C. Title 18, Chapter 14, Table 5). Effluent Collection Systems should be administered no differently.

The fees are based upon technologies. For example, a media filter (Type 4.12 GP) with UV disinfection (Type 4.20 GP) with a pressurized system (Type 4.04 GP) discharging to drip disposal (Type 4.22 GP) would be the three technologies with a disposal method.

The new schedule is trying to bill per component $1,470 per pump tank. This does not follow the principle of review of "technologies". It is trying to review based on the number of "components".

In addition, the review fee is proposing to bill for gravity or pressure line for every 15,000 gpd. This is currently not supported in the Type 4.23 GP systems and should not be changed. The Type 4.01 GP systems are billed in increments of 50,000 gpd or less. Why the need for plan review for General Permit systems in increments of 15,000 gpd or less? At a minimum, it should be based on the established flows under the Type 4.23 GP of less than 24,000 gpd.

ADEQ Response 24: ADEQ appreciates the comment. The commenter is correct in stating that the fee schedule does not align with a Type 4.23 GP. The LECS GP more closely follows the Type 4.01 GP which ADEQ believes is more appropriate because it is a similar collection-type system, unlike the other Type 4 GPs. Therefore, the schedule charges based on flow, with a maximum fee.

For additional information on how ADEQ set the fees, see comment 1.

Additionally, the difference with the flow increment between the Type 4.01 (50,000 gpd increments) and the LECS GP (15,000 gpd increments) is relative to: 1) the potential size of each system; and 2) the expected staff review time required. A sewage collection system can process up to millions of gallons/day, whereas the LECS GP is capped at 74,999 gpd.

Comment 25: Related to the ASTM for manhole "Negative Air Pressure" test (Part A(2)(A)(2)(a)): The majority of LECSs will not have manholes but rather will have cleanouts. If there is a very large LECS that is gravity there could be a manhole but the preferred approach with small diameter pipes would always be to use a cleanout; Related to the Engineering Design Standards for "Manholes and Appurtenances" (Part A(2)(A)(3)): Manholes are not the preferred access for LECSs; Related to the PCRWRD standards for "Sanitary Sewer Manholes" (Part A(2)(A)(6)(a)): Manholes are not typical to LECS gravity systems and would not be present on LECS pressure;

ADEQ Response 25: ADEQ appreciates the comment. Manholes are not required for all LECS designs, but are required when effluent line diameters are 8 inches or greater. If the designer wants to avoid manholes, the LECS GP is flexible to allow other design options.

Comment 26: Related to the PCRWRD standards for "Typical Trench for Gravity Sewer Lines" (Part A(2)(A)(6)(c)): LECS is not the same as Gravity Sewer Lines; Related to the MAG standards for "Uniform Standard Details for Public Works Construction" (Part A(2)(A)(8)): This section pertains to Sanitary Sewer Collection Systems not to LECSs;

ADEQ Response 26: ADEQ appreciates the comment. ADEQ recognizes that an LECS is not entirely analogous to a gravity sewer, however, while developing the LECS GP, ADEQ consulted with subject matter experts and conducted thorough review of applicable state permits and all best available standards and knowledge. As a result of that effort, ADEQ decided that referring to the standards in Part A, Section 2 was relevant and appropriate.

Comment 27: Related to the general design requirements (Part A(4)(H)(5)): LECS lines are not the same as sewer lines and cannot meet all of the same requirements;

ADEQ Response 27: ADEQ appreciates the comment. ADEQ acknowledges that LECS lines are distinct from sewer lines by only requiring that the applicant meet all "applicable" requirements of A.R.S. § 40-360.22.

Comment 28: Related to the performance requirements stipulating that a person shall prevent releases to the land and minimize exfiltration losses for the system (Part A(5)(3) and (4)), LECS with gravity that happens to have a manhole could have infiltration and exfiltration from the system, but it is not the norm. A pressurized system would not be subject to these losses. These seem relevant to a gravity sewer collection system.

ADEQ Response 28: ADEQ appreciates the comment. The performance standards in this section of the LECS GP are general standards which may be applicable to gravity and pressure systems. The function of a pressure system may already achieve these standards, and this section does not prescribe additional requirements for the system, but rather establishes performance standards to achieve through adherence to the other requirements of the LECS GP, which includes gravity-specific and pressure-specific requirements. This approach is consistent with the Type 4.01 GP (*see* R18-9-E301(B)).

Comment 29: Related to the general design requirements for the STEG and Septic Tank Effluent Pressure systems pertaining to accommodating peak wet weather flow (Part B(2)(A)(1)): Does not pertain to a liquid effluent collection system.

ADEQ Response 29: ADEQ appreciates the comment. The LECS GP language accommodates for any possible peaking factors, which relates to the gravity lines similarly to the Type 4.01 GP. This is especially applicable to an LECS with manholes or cleanouts because infiltration is possible.

Comment 30: In the definition of "Liquid effluent collection system", update the language to distinguish between a dispersal and common dispersal area and clarify that secondary treatment system means an advanced system.

ADEQ Response 30: ADEQ appreciates the comment. The definition of liquid effluent collection system is defined in A.R.S. § 49-245(J)(1) and ADEQ is unable to change the definition as it relates to the dispersal area. However, the language "common dispersal area" recognizes that there may be more than one area. To address the comment about the secondary treatment system, ADEQ added clarification to the end of the definition. The updated language reads: ""*Liquid effluent collection system" or "system" means a collection of lines that convey liquid effluent from multiple septic tanks, as primary treated wastewater, to a common secondary treatment system or common dispersal area through a small diameter pumping system or gravity*

system (A.R.S. § 49-245(J)(1)). For the purpose of this definition, "dispersal" has the same meaning as "disposal" and "secondary treatment system" means any treatment technology prescribed in A.A.C. Title 18, Chapter 9, Article 3" (LECS GP Part A(1)(E)).

Comment 31: Pump vault should be a definition with criteria.

ADEQ Response 31: ADEQ appreciates the comment. The LECS GP definitions have been updated such that "pump vault" is defined within the definition of STEP system – the definition now reads: "*"Septic tank effluent pump (STEP) system" means a collection system that uses a septic tank to separate solids and incorporates a pump vault, pump and associated devices to convey effluent under pressure to a subsequent component* (A.R.S. § 49-245(J)(3)). For the purpose of this definition, "pump vault" is a casing that holds the pump in the second chamber of a septic tank and "pump chamber" is a stand-alone chamber of the septic tank that holds a pump. The terms pump vault and pump chamber are distinct from the term pump tank as defined in subsection (I) of this section" (LECS GP Part A(1)(L)).

Comment 32: The definitions do not recognize a single owner.

ADEQ Response 32: ADEQ appreciates the comment. The LECS GP definitions define "owner" as "a person who has legal ownership over the liquid effluent collection system…" and "person" is accordingly defined as "*... an individual, employee, officer, managing body, trust, firm, joint stock company, consortium, public or private corporation, including a government corporation, partnership, association or state, a political subdivision of this state, a commission, the United States government or any federal facility, interstate body or other entity* (A.R.S. § 49-201(33))." This definition of "person" recognizes a single owner (i.e. "individual").

Comment 33: The transition requirement in Part A(4)(D)(1) should be spelled out.

ADEQ Response 33: ADEQ appreciates the comment. For the purpose of brevity in the LECS GP, the transition requirement cites the applicable statute, A.R.S. § 49-245(H) which states: "[n]ot later than one hundred and eighty days after the effective date of revised general permit program rules that are proposed after September 26, 2025, a permittee prescribed by [the LECSsubsection] of this section shall initiate a transition of the permittee's facility consistent with the revised general permit program. The director may not require any design modifications or fees that are associated with this transaction." Because it is a lengthy requirement, and can be reasonably found in the statute, ADEQ determined not to include it verbatim in the GP.

Comment 34: Regarding the installation requirements in the permit, there should be a requirement for a "correctly licensed contractor".

ADEQ Response 34: ADEQ appreciates the comment. The language has been updated to reflect the comment. Part A(6)(B) now reads: "All construction must be completed by an appropriately-licensed Arizona contractor, unless otherwise authorized by statute".

Comment 35: The language providing an alternative earth cover depth for STEG lines is unnecessary.

ADEQ Response 35: ADEQ appreciates the comment. The requirements for STEG design stipulates that all effluent lines be covered with at least 3 feet of earth cover, but allows alternative depths. Specifically, "[i]f site specific limitations prevent 3 feet of earth cover, a minimum of 2 feet cover may be acceptable if the design of the pipe and joints can withstand crushing or shearing from any expected static and live load and protect the structural integrity of the pipe" (LECS GP Part B(2)(B)(2)(b)). The exemption is necessary to enable alternative designs in locations where the standard is not achievable, and establishes a standard under which ADEQ may approve a deviation from the GP requirements.

Comment 36: An 8" line is not an LECS.

ADEQ Response 36: ADEQ appreciates the comment. The LECS GP enables multiple design options, providing flexibility to the designer. If the designer elects to utilize effluent lines 8 inches or larger, this GP provides an acceptable pathway for that design, but the GP does not require that diameter.

Comment 37: The pump design section for STEP systems should be based upon flow as opposed to source. For example, does an office and a Dollar General store need to be duplexed? With lower flows there is enough safety in the system to allow for a replacement pump to be provided. Duplexing results in a bigger panel, more controls and higher costs.

ADEQ Response 37: ADEQ appreciates the comment. The requirements for STEP system design stipulates "[t]wo effluent pumps shall be required when a septic tank receives flows from two or more sources, or from a commercial source, to ensure the pump tank is capable of operating at design flow with any one pump out of service…" (LECS GP Part B(2)(C)(1)(d)). While developing the LECS GP, ADEQ consulted with subject matter experts and conducted thorough review of applicable state permits and all best available standards and knowledge. The redundancy in the GP is protective and a well-established engineering standard in the industry when maintaining pumps from more than one source or from a higher risk source, like a commercial building. However, for fact-specific inquiries, the applicant may request a feature of improved or alternative technology, design, installation, or operation that differs from a requirement in the general permit, which may be approved at ADEQ's discretion (*see* LECS GP Part B, Section 3).

Comment 38: In the "Covers" requirements, the cover should be limited to earthen or ground cover and lids should be used for connection to risers.

ADEQ Response 38: ADEQ appreciates the comment. The requirements for STEP system design establish certain requirements for "Covers" (*see* LECS GP Part B(2)(C)(4)). To make this section more clear, ADEQ updated the language to state "[c]overs are lids" (LECS GP Part B(2)(C)(4)(a)) and updated the GP to remove other uses of the word "cover" outside of this context. Furthermore, language referencing "covers" in the tank design section was updated to specify "tank tops", whereas language referencing "covers" in the cover design section was updated to specify "access covers". Therefore, to address the question, covers can be plastic lids or covers can be on a manhole – the term refers to both.

Comment 39: Under the tank identification section for STEP design requirements, add language providing that tanks should at the maximum recommended depth of earth coverage "per the manufacturer".

ADEQ Response 39: ADEQ appreciates the comment. The language has been updated and now reads: "All tanks shall be…. The maximum recommended depth of earth coverage in feet, per the manufacturer" (*see* LECS GP Part B(2)(C)(5)(a)(ii)).

Comment 40: Regarding the service pipe requirements for STEP systems, a 1" pipe is very commonly used when correctly designed.

ADEQ Response 40: ADEQ appreciates the comment. The requirements for STEP system design provide that "[t]he minimum size of a service pipe shall be 1.25 inches in diameter" (LECS GP Part B(2)(C)(6)(d)). While developing the LECS GP, ADEQ consulted with subject matter experts and conducted thorough review of applicable state permits and all best available standards and knowledge. From that collaboration and analysis, ADEQ determined 1.25 inches to be standard and protective for system integrity.

Comment 41: Regarding the control panel requirements for STEP systems, the height of the panel should include or average snow height.

ADEQ Response 41: ADEQ appreciates the comment. The requirements for STEP system design provide that "[c]ontrol panels for all pumps shall be at least 3.0 feet above finished grade" (LECS GP Part B(2)(C)(7)(a)). The language "at least" enables the designer to exceed 3 feet, such as to account for snow height as the commenter suggests.

Comment 42: The field test requirements in the Request for Discharge Authorization section are excessive for an LECS and are not the industry standard.

ADEQ Response 42: ADEQ appreciates the comment. While developing the LECS GP, ADEQ consulted with subject matter experts and conducted thorough review of applicable state permits

and all best available standards and knowledge. As a result of this collaboration and analysis, ADEQ determined that all field testing requirements are relevant to a properly designed LECS under this GP and ensure that effluent lines meet performance requirements in the GP.