

TARDEC BAA W56HZV-05-R-BAA1, Topic #25 Topic #26
 Summary Question and Answer
 Added by Amendment 0065 on 29 December 2011
 Revised by Amendment 0066 on 12 January 2012 (Revisions in Yellow)

TOPIC OR BAA REFERENCE	QUESTION	ANSWER
BAA, Section VII.a.(12)	The BAA indicates two(2) trips to Warren: What is the purpose of these trips? Are these trips in addition to trips for training and test support?	These trips are for Start of Work Meetings and/or In Process Reviews to review and discuss project progress and direction. Yes, these trips are in addition to trips needed to provide training and test support.
Topic #25 General	Is there a preferred Technology (reverse osmosis, membrane, Etc.)? / Will any type of technology be specifically excluded from consideration?	The Government will consider various technology solutions based on their technical merit and cost toward meeting the solicitation requirements to determine the best value for the Government.
Topic #25 General Topic #26 General	Are there any special military standards for plumping and electrical?	The system should meet commercial standards such as, NSF, ASTM, and NEC.
Topic #25 General Topic #26 General	Is Army looking for potable water out of the reuse system?	The water must meet the standards as referenced for each solicitation topic, Topic 25 - TB MED 577 and any connected reference as called out in the document. The resulting water will be used for non-potable uses. Topic 26 - EPA NPDES 30-day average limits for secondary treatment and any connected reference as called out in the document.
Topic #25 General Topic #26 General	Is there a minimum Technology Readiness Level (TRL) required for the proposed technology?	The technology should be at a sufficient Technology Readiness Level (TRL) such that a prototype system capable of meeting the solicitation requirements can be delivered to the Government eighteen (18) months after contract award, at which point the prototype system will be tested by the Government in a field environment. See Section 2.8 of Topic #25 and Section 2.8 of Topic #26.
Topic #25, General Topic #26, General	We are interested in multiple topics. Can you please confirm if each one will require a separate proposal?	Part V. of the BAA states, "Technical approaches that provide an integrated solution in multiple topic areas may be submitted, but a single "lead" topic must be identified for informal talks and proposal submission." If an offeror is proposing two different solutions the offeror shall submit two different proposals. (May not necessarily be an integrated solution.)
Topic #25, General Topic #26, General	What type of contract is anticipated?	As indicated in Section VII.a.(12) of the BAA, The offeror must identify the type of contractual instrument they consider appropriate for performing the proposed effort (See also paragraphs X.i and X.j under Part X, General Terms & Conditions). The Government reserves the right to make the final decision regarding the most appropriate instrument type for each project.
Topic #25, General Topic #26, General	Is there any future projection of full-scale quantities of systems which the Army may procure upon successful prove out of the prototypes?	Not at this time.

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Topic #25, General Topic #26, General	Will the Army consider hosting an industry day in the near future to clarify system requirements as well as relay any acquisition strategies being considered for future procurement of the system?	Not at this time.
Topic #25, General Topic #26, General	What are the government's considerations for timing? Can project be completed in a shorter time frame than anticipated by the government?	Please reference the Milestone Schedule within each topic. If your company is able to complete the project successfully in a shorter timeframe than provided, you may propose accordingly, however there will be no additional benefit for doing so.
Topic #25, General Topic #26, General	What is anticipated end-use of the system?	Please reference the "Objective" section within each Topic.
Topic #25, General Topic #26, General	Will this system work with the Force Provider solution?	It is unknown at this time, but, it is possible that this could result in future integration with Force Provider Kits.
Topic #25, General Topic #26, General	Can you provide breakdown of the volume of water used for different purposes (ie showers, kitchen, latrines etc) and breakdown of waste water generated by those uses? Is water currently reused in any of the systems other than showers? Are the streams for different uses going to be separated?	<p>This information can vary widely based on the size and setup of forward operating bases/base camps. However, the following data may help as a baseline:</p> <ul style="list-style-type: none"> - For the 50-man case: 300 gpd gray from the food services, 1200 gpd gray from the hygiene complex (includes 1 stacked washer dryer unit), 200gpd black. - For the 150-man case: 408 gpd gray from the food service, 3025 gpd gray from the shower complex, 1300 gpd grey from the laundry system, and 866 gpd black from the latrines. - Water from a SWRS may currently be reused for shower, laundry and toilet flushing. - The gray water stream includes shower and laundry water. The black water stream includes latrine, kitchen, and gray water recycle/reuse concentrate.
Topic #25, General Topic #26, General	The estimated award date is 09 April 2012, which is six (6) months into Fiscal Year 2012. Can money be extended from Fiscal Year 2013 to Fiscal Year 2014 to allow for full 24 months?	The amounts described in the Topics are the maximum amounts which may be obligated to the prospective contract(s) in Fiscal Years 2012 and 2013. So, if \$X is obligated on 09 April 2012, Year 1 of the work effort will be 09 April 2012 through 09 April 2013.
Topic #25, Section 1.2 Topic #26, Section 1.2	Is this requirement for the construction of a prototype treatment unit that would be equivalent to a functional unit, according to our design?	By the end of the contract, we are looking for a quarter-scale to full-scale prototype demonstrator. The system must be functional so that it may be tested in a relevant environment.

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Topic #25, General Topic #26, General	Solicitation numbers TARBAATOPIC25 and TARBAATOPIC26 are quite similar in nature, and exact in things like funding. Can you confirm (or deny) that they are or will be in fact separate and distinct solicitations?	Yes, the topics are similar however they are two distinct solicitations. One for the recycle and reuse of gray water only and one for the treatment and discharge of wastewater (including gray and black water inputs). Please read each topic carefully to note the differences.
Topic #25, General Topic #26, General	What kind and concentration of surfactants will likely be present in the water streams (greywater and blackwater)?	Surfactants will likely include commercially available varieties of detergents, cosmetics, etc. Concentrations will vary based on type and size of FOB.
Topic #25, General Topic #26, General	Is trucked drinking water treated on-site or brought with a disinfectant residual?	Trucked water is bottled water typically. If water is treated on site using water purification systems there will be a chlorine residual.
Topic #25, General Topic #26, General	Would the wastewater system described in Topic 26 be used in place of the Shower Water Reuse System and the Topic 25 gray water system, intended to process all shower, gray and black water?	The Topic #26 wastewater treatment system is intended to be used in combination with a gray water recycle system. The concentrate from the Shower Water Re-use system or other gray water recycle system along with kitchen and toilet water would be the feed for the wastewater treatment system.
Topic #25, Section 2	The Army has stated a requirement for a system which is able to regenerate up to 4500 GPD. If a proposal provides a quarter-scale prototype unit, does it meet your requirements if it regenerates one fourth of the 4500 GPD or approximately 1125 GPD?	Yes, that is a correct interpretation.
Topic #25, Section 2 Topic #26, Section 2	What is your definition of water use, per person, per day in the intended application?	This depends on the size and type of base camp and can vary. - Topic #25 provides information on the gray water generated for 50 man and 150 man forward operating bases (FOB) (1,500-4,500 gal/day) along with potable water consumption values (1,600-5,000 gal/day). In addition, Table 1 and paragraph 2.3.8 present the requirements for gray water treatment capacity. - In Topic #26, Table 1 and Paragraph 2.3.7 present the requirements for black water treatment capacity (1,500-3,000 gal/day), which are based on a 50 man FOB and a 150 man FOB, respectively.
Topic #25, Section 2 Topic #26, Section 2	Will there be other environmental operating condition requirements besides the temperature range of -25F to +140F, such as outdoor precipitation rates, wind speeds, silent mode operation levels, blast effects, etc.?	That will be required for a production system, but is not required for these BAA Topics. However, these prototypes will be tested in an outdoor, field environment.
Topic #25, Section 2 Topic #26, Section 2	What is flow curve during the day / peak flow rates?	Since we have different camps with different missions and schedules, it is hard to get a "typical" flow/time profile.

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Topic #25, Section 2.3 Topic #26, Section 2.3	2.3 says to develop & demonstrate Platoon-sized & shall be scalable to Company-sized. Does this allow 1/4-scale of Platoon, scale to full size, and then scale to Company?	Full-scale is 4,500 GPD. A 1/4-scale system would be 1125 GPD. Therefore, the deliverable prototype must have min. capacity of 1125 GPD.
Topic #25, Section 2.3.1 and Table 1	Is 20 Watt-hr/Gal for steady-state operation? During start-up, the system may need more energy and produce less output.	Yes.
Topic #25, Section 2.3.6 and Table 1	Can the system receive gray water at less than 32°F? Is it not frozen?	The water temperature will be above freezing even when the ambient temperature is below 32F.
Topic #25, Section 2.3.7 and Table 1	What are the characteristics of the discharge from the Shower Water Reuse System? Need this information to calculate % reduction.	Characteristics of the discharge are not available at this time. As a baseline for % reduction for discharge, the SWRS discharge is ~25% of the inlet treatment volume. The link to a public article obtainable online that gives some information about the Shower Water Reuse System (SWRS) is below:
Topic #25, Section 2.3.7 and Table 1		http://www.army.mil/article/65812/Shower_Water_Reuse_System_to_be_force_multiplier_at_FOBs/
Topic #25, Section 2.3.7 Topic #26, Section 2.3.6	Please provide bounds describing influents.	This is not currently characterized. The gray and black water influents would contain contaminants typically seen in wastewater streams. The levels of these contaminants can vary widely based on the size and setup of forward operating bases/base camps. Levels for a municipal wastewater treatment plant may be a good starting point.
Topic #25, Section 2.3.8 and Table 1	Section 2.1 states, "Gray water generated is approximately 1,500 gallons per day (gpd) for Platoon-sized FOBs and 4,500 gpd for Company-sized FOBs". Section 2.3 says to demonstrate to Platoon-size and be scalable to Company-size. There seems to be a disconnect between threshold and objective in Section 2.3.8 and Table 1 because they are both the same (1,500-4,500 gallons per day). Please explain.	As stated in Section 2.3, you must demonstrate (at least) a technology that can support the demand of a Platoon-sized FOB (1,500 GPD) and your technology solution must be scalable to a Company-sized FOB (4,500 GPD). The objective and threshold for this criterion are the same, since there is no benefit to increased capacity.
Topic #25, Section 2.3.9 and Table 1 Topic #26, Section 2.3.8 and Table 1	Which model generator is expected for the military standard generator referenced in the announcement? / Where can we find information on a 'standard military generator'?	There are a number of standard military generators, military tactical quiet generators (TQG) are available in a number of sizes (ex., 3, 5, 10, 15, 30, etc. kW). All run on JP-8 and diesel fuel. We are not calling out a specific gen set, just that the system must be compatible with one. You may be able to find more information under PM MEP. Two possible websites are: https://www.pm-mep.army.mil/ and http://peoc3t.army.mil/mep/

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Topic #25, Section 2.4	Page 90 of TB MED 577 makes a reference to USACHPPM IP 31-027, — "Criteria for Recycle of Gray Water for Shower Use". We cannot find this document on the web.	TIP 32-002-0111 is more recent, more inclusive and contains much of the same information as USACHPPM IP 31-027 (which was developed specifically for Force Provider and the SWRS). See the link below to access TIP 32-002-0111.
Topic #25, Section 2.4		http://www.google.com/url?q=http://phc.amedd.army.mil/PHC%2520Resource%2520Library/Non-Potable%2520Water%2520Reuse%25202011.pdf&sa=U&ei=JL3gTsDGMq3y2gXh0aTmBA&ved=0CA8QFjAA&usg=AFQjCNHa3Q-xd_kZGzY8hsW2XzXl-qkp4Q
Topic #25, Section 2.6 Topic #26, Section 2.6	Section 2.6 says, "The contractor shall provide training materials and manuals for 15 soldiers". Is this training for testing operators only? Or full training of production?	This is for training the testing operators.
Topic #25, Section 2.7 Topic #26, Section 2.7	Section 2.7 states, "The system shall be easy to operate by a non-Military Occupational Specialty (MOS) specific person after one (1) week of training and use of the operations manual". What is the labor category of said non-MOS?	Any soldier, with any MOS and any labor category should be able to operate the system with one (1) week of training.
Topic #25, Section 2.7 Topic #26, Section 2.7	Section 2.7 states, "The system shall have the ability to provide unattended automatic operation, provide real time system monitoring, and be self-monitoring". However, Section 2.3.3 states, "The system shall not require more than three (3) operator attended periods per day". Please explain the disconnect.	Section 2.3.3 in relation to Table 1, shows that 3 visits, totaling no more than 2 hours/24 hours is the threshold while unattended operation for 24-72 hours is the objective. As stated in Section 2.7 the system must run automatically, provide real time system monitoring and be self-monitoring. Fully unattended operation is desired however meeting the threshold for operator attendance is allowed for this solicitation.
Topic #25, Section 2.8 Topic #26, Section 2.8	Will the testing be funded?	No funding will be provided for the actual tests, as they will be performed by the Government. However, Paragraph 2.8 of the Topic describes the requirement for support during the testing. In the offeror's proposal, the offeror shall include a discussion of the offeror's proposed technical approach and costs associated with said support.
Topic #25, Section 2.8 Topic #26, Section 2.8	Where will the test sites be and who determines this?	Test sites are anticipated to be military locations within the continental United States. As indicated in Paragraph 2.8 of the topic, the Technical Point of Contact (TPOC) will determine the location of each testing site within six (6) months of the contract award date.

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Topic #25, Section 2.8 Topic #26, Section 2.8	Section 2.8 details the testing requirements upon delivery. Will the government provide transportation and berthing for the contractor(s) during on-site testing or will the cost section of the proposal have to include these costs?	The Government will not provide transportation or any type of lodging for contractors during the training or test periods. Cost proposals shall include the total cost of the project.
Topic #25, Section 3 Topic #26, Section 3	Will the government provide a timeline of work to fit within the funding available?	As indicated in Section VII.b.(2)(d)(1) of the BAA, it is the offeror's responsibility to propose the funding schedule. The proposal must be affordable for each fiscal year of the total 2-year project, according to the estimated funding available as detailed within Section 3 of each Topic.
Topic #25, Section 3 Topic #26, Section 3	Please clarify the budget allocations.	For each Topic, The funding available is 1.75M maximum over a two year period for UP TO two (2) contracts combined, not per contract.
Topic #25, Section 3 Topic #26, Section 3	Since 2 awards are anticipated, is it reasonable to assume that the funding will be evenly split between them?	The possibilities may vary and are unknown. Based on the availability of funding and upon the degree to which proposals received within a given topic appear to offer meaningful technical merit, the award of any contract(s) or agreement(s) will be made to the offeror(s) whose proposal provides the greatest overall value to the Government.
Topic #25, Table 1 Topic #26, Table 1	There is a substantial difference between "Thresholds" and "Objectives". While we are certain we can meet the thresholds as presented, the Objectives would seem to be something to be demonstrated in the testing itself. Does the inability to claim to be able to meet the "Objectives" affect the viability of the proposal?	"Threshold" denotes the minimum acceptable requirements and "Objective" denotes the desired requirements. Simply meeting the threshold criteria does NOT deem a proposal ineligible for consideration. As stated in paragraph IX.a. of the BAA, "Based on the availability of funding and upon the degree to which proposals received within a given topic appear to offer meaningful technical merit, the award of any contract(s) or agreement(s) will be made to the offeror(s) whose proposal provides the greatest overall value to the Government."
Topic #26, General	Force Provider Kits include expandable TRICON containers. Is this a possibility here as well? Potentially include expansion elements that arrive in the one TRICON?	As long as it meets the guidelines of the full-scale system pack out volume (416 cubic ft) and weight (less than 7,100 lbs.), as stated in section 2.5 of the Topic.
Topic #26, General	What kind of toilets are used at forward operating bases? Is there urine/feces diversion (i.e. urine diverting latrines, dry latrines, etc.)?	Low flow flush, urinals are available for males and everything goes into one black water tank.

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Topic #26, Section 1	The topic states that the objective is for a black wastewater treatment system for the safe discharge of wastewater. Does this mean disposal on-site?	Yes. And, as stated in Section 2.4, "The system shall produce an effluent that meets or exceeds the EPA National Pollutant Discharge Elimination System 30-day average limits for secondary treatment: Biological Oxygen Demand (BOD): 30 mg/L, Total Suspended Solids (TSS): 30 mg/L, pH: 6-9, and removal: 85% for BOD and TSS".
Topic #26, Section 2.2	The Topic states a key technology challenge as the "ability to adapt to widely varying load conditions". Please provide bounds for these conditions.	Concentrations are going to vary from camp to camp. Once again, levels for a municipal wastewater treatment plant may be a good starting point.
Topic #26, Section 2.3.1 and Table 1	Please expand upon the "net-zero" objective. / What is meant by 'internal system energy generation'?	It is desired for the system to require "net zero" energy for operation. The idea behind this term is a system that produces energy that can be used either by the system itself or externally so that running the system allows for "net zero" operation (i.e., the energy going into the system is offset by the energy produced by the system). Energy scavenging from the provided power source is acceptable. The system may not scavenge energy from components outside the system.
Topic #26, Section 2.3.4 and Table 1	The Topic states, "the waste stream produced by the system shall, by means of separating and consuming solids, be less than ten percent (10%) of the total mass inflow". What does this mean?	10% of mass inflow means that the output waste generation (sludge for disposal) coming out of the system cannot exceed 10% of the mass input to the system.
Topic #26, Section 2.3.5 and Table 1 Topic #25, Section 2.3.5 and Table 1	Define Set up time.	The set up time is the time needed for the system to be set up and fully operational. Fully operation means that the product water meets the effluent standards.
Topic #26, Section 2.3.8 and Table 1	The topic states that, "The ability to use variable power sources, including alternative energy sources is desirable, although not a requirement for the system". Is the Government looking for added capability or simply a link?	The ability to be operated by more than one type of power source is a desired capability for the system. A primary power source is to be provided by the offeror with the system, interfaces to allow operation by an alternative power source is desired. As noted in section 2.3.8 of the Topic, this is not a requirement but is desired.
Topic #26, Section 2.3.9 and Table 1	The topic states, "the system shall be operational over a wide range of ambient temperatures (-25 F to 140 F)". What is the ambient temperature range sustained amount of time?	Average temperatures are going to vary from camp to camp. Temperatures similar to those in Afghanistan may be a good starting point.

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Topic #26, Section 2.4	Section 2.4 only lists removal requirements for BOD and TSS. Are there any requirements for disinfection of the wastewater prior to discharge? If none are stated, will the inclusion of the ability to provide disinfection within the stated Threshold and Objective requirements be a factor in selection?	Currently the EPA NPDES 30-day average limits for secondary treatment do not include a disinfection requirement. All proposal submissions will be evaluated on their technical merit and cost toward meeting the solicitation requirements to determine the best value for the Government.
Topic #26, Section 2.5 and Section 2.8 Topic #25, Section 2.5 and Section 2.8	What testing will be performed?	An exact test plan has not yet been developed. The system will be tested to determine how well it meets the solicitation requirements.
Topic #26, Section 2.5 and Section 2.8 Topic #25, Section 2.5 and Section 2.8	Does the system need a transportation case?	Yes.
Topic #26, Section 2.7	The topic states, "the system shall have the ability to provide real time system monitoring". Please define "Real Time System Monitoring".	The ability to locally monitor system status through measurements that are made at the same rate as the data is received to provide time-relevant information for decision-making and control of the system.