

GEPA INTERNAL REVIEW CHECKLIST

GEPA MILCON DESIGN REVIEWS/CGGS PERMIT: STORMWATER/EROSION & SEDIMENT CONTROL

#	Description of Requirement	_____% Design Review <small>(✓ if complete)</small>	CGGS Permit App <small>(✓ if complete)</small>	Comments
A. GENERAL EROSION & SEDIMENTATION CONTROL PLAN (E&SC)				
1	Includes a Clearing and Grading Schedule detailing the proposed sequence of construction and completion of major elements of construction?			
2	Includes an adequate E&SC Plan ?			
2a	Includes adequate site maps [C-101, CD-101, and Stormwater Pollution Prevention Plan (SWPPP)]?			
2b	Were site maps prepared by/under supervision of a registered PE?			
3	Identify areas of activities/work and provide details, specifications, and maintenance requirements of the activities/work:			
3a	Is the laydown area serviced by the E&SC plan?			
3b	Are the perimeter BMPs adequate?			
3c	Are the stockpile BMPs adequate?			
4	If project site is larger than one (1) acre, is a sediment trap/basin included? → If Yes, make sure to also COMPLETE B3a-d.			
5	Includes a Site Stabilization/Revegetation plan?			
6	Includes a Traffic Control Plan for protection of practices during construction? <i>*Note this is NOT a highway traffic control plan – this is to protect BMPs on-site</i>			
B. STORMWATER DESIGN CALCULATIONS				
1	Are TEMPORARY Stormwater Design Calculations included?			

2	<p>Are POST-CONSTRUCTION Stormwater Design Calculations included?</p> <p style="text-align: center;">→ ALSO COMPLETE SECTION C.</p>			
3	<p>Are the sediment trap/basin sizing calculations in the E&SC plan or stormwater design calculations adequate (straight calculation of 5,500 ft³ per acre served)?</p>			
3a	<p>IF sediment basins are located in the same footprint as permanent infiltration BMPs, the final depth of infiltration should be deeper than sedimentation basin to ensure sediment-clogged layers are removed after site stabilization. Is this considered?</p>			
3b	<p>Does the site layout diagram show specific drainage basins used for BMP calculations (in acres)?</p>			
3c	<p>Does the site layout diagram show impervious vs. pervious surfaces calculations (with size of each in acres)?</p>			
3d	<p>Does the impervious area match the site layout diagram?</p>			
4	<p>Are Recharge Criteria (Re_v) calculations included?</p> <ul style="list-style-type: none"> • <i>Not required if the Q_{p-25} met with infiltration BMPs.</i> • Usually not required for Camp Blaz Cantonment projects. 			
5	<p>Are Water Quality Criteria (WQ_v) calculations included?</p> <ul style="list-style-type: none"> • 90% rule (1.5 inches) applies: Hotspots or per Figure 2.2 (High Quality Waters: S1 or M1) • 80% rule (0.8 inches) applies : Figure 2.2 (Moderate Quality Waters: S2, S3, M2, or M3) • Roof areas may be removed from WQ_v (counted toward Re_v) if directly infiltrated (i.e, does not discharge to a “dirty” surface prior to BMP) <p style="text-align: center;">→ See also SECTION C2.</p>			
6	<p>Are Overland Erosion and Channel Protection Criteria (C_{pv}) calculations included?</p> <p><i>Not required if Q_{p-25} met with infiltration BMP, or if project impervious area is less than one (1) acre. Not required for Camp Blaz projects.</i></p>			
7	<p>Are Overbank Flood Control Criterion (Q_{p-25}) calculations included?</p> <p><i>Not required for Camp Blaz projects</i></p>			

7a	Is the 25-year storm rainfall depth from 2006 manual location used? <i>Do not use smaller storm depths from NOAA Atlas or other sources.</i>			
7b	Is the TR-55 used as basis for computation?			
7c	If “delta” runoff volume is used for Q_{p-25} : <ul style="list-style-type: none"> • Are “Pre” and “Post” CN based on same HSG rating (e.g., A with A, D with D)? • Pond overflow discharges to area drainage system, not overland to adjacent property 			
7d	<ul style="list-style-type: none"> • Are infiltration BMPs are used? If they do not overflow to an area stormwater drainage system; Q_{p-25} must be entire post-construction runoff volume (not “delta” between pre- and post-development conditions). 			
8	Do Pre-treatment calculations meet the minimum volume? <ul style="list-style-type: none"> • 25% of WQ_v for sediment chambers, swales; OR • Demonstrates that alternate pretreatment requirements are met (e.g., filter strips, sand, and aggregate layers (See 2006 CNMI/Guam Stormwater Management Manual “Manual” Section 3.2.4.3c and Table 3.6.) 			
9	Are Infiltration & Stormwater Filtering Systems BMP Sizing calculations adequate (Uses appropriate equation from Section 3.2.4.3 & 3.2.4.4.) <ul style="list-style-type: none"> • f_c uses actual percolation rate w/ safety factor (as recommended by geotech) • T may be 24 hours per GEPA clarification OR: <ul style="list-style-type: none"> • For infiltration, uses simplified form of: $V_{\text{storage}} = V_{\text{runoff}} - V_{\text{infiltrated}}$ 			
10	Are Hotspots present and Hotspot-Specific calculations included? <p style="text-align: center;">→ If Yes, see also items listed in C3.</p>			
10a	Are two types of hotspot pretreatment BMPs used in series ahead of the final disposal/infiltration BMP?			
10b	Is the total WQ_v of the two pretreatment BMPs 100% or more?			
11	Are Percolation Test Reports attached (required for infiltration BMPs)?			

C. OVERALL DESIGN: POST-CONSTRUCTION BMPs & DRAINAGE SYSTEM DESIGN (Refer to 2006 CNMI & Guam Stormwater Manual)				
1	Is an adequately detailed <i>Grading and Drainage Plan</i> provided? Details must be adequate to show direction and destination of all site runoff (contours, spot elevations, invert elevations for storm drain conveyances).			
2	Are Water Quality Volume (WQ_v) calculations included? → See also SECTION B above			
2a	Separate BMP provided for WQ _v ?			
2b	WQ _v BMP is located upstream of final disposal/infiltration BMP?			
2c	WQ _v BMP type appropriate for site (see 3.2.1-Acceptable WQ _v practice list)?			
2d	WQ _v BMP size matches the volume in the calculations (compute based on dimensions from plan)?			
2e	WQ _v BMP is designed “offline” from final disposal/infiltration BMP (large storms bypass the WQ _v BMP instead of flowing through it)?			
3	Are Hotspot BMPs included?			
3a	Are the two Hotspot WQ _v BMPs provided ahead of the final disposal/infiltration BMP, appropriate for the site? (See Manual, Volume II, Table 2.1)			
3b	Is a commercial BMP such as OWS is used?			
3c	<ul style="list-style-type: none"> • Is the specific method of size selection explained (e.g., expected flow rate in cfs for 1.5-inch storm)? • Typical: OWS followed by sand filter 			
3d	Other combinations may be appropriate, but should be vetted by GEPA prior to permitting & documented.			
3e	Are the Hotspot BMPs designed “offline” from final disposal/infiltration BMP (large storms bypass the WQ _v BMP instead of flowing through it)?			
4	Are Final disposal/infiltration BMPs included? <i>Note – “No” for Camp Blaz projects – final disposal in J-001 basins</i>			

4a	Do the sizes match the calculations?			
4b	All discharges to basin enter only after passing through WQ _v practice? Exceptions: <ul style="list-style-type: none"> • roof runoff (but must be discharged directly) • Pervious & minor incidental impervious areas around BMP 			
4c	Inlets are protected against erosion (concrete or stone riprap)?			
4d	IF sediment basins are located in same footprint as permanent infiltration BMPs, final depth of infiltration should be deeper than sedimentation basin to ensure sediment-clogged layers are removed after site stabilization.			
3e	Are the WQ _v pretreatment BMPs designed “offline” from final disposal/infiltration BMP (large storms bypass the WQ _v BMP instead of flowing through it)?			
D. EPA 2022 CONSTRUCTION GENERAL PERMIT (CGP)				
1	Valid CGP Notice of Intent (NOI)?			
2	Valid CGP Authorization Email Approval for above NOI included			
3	Approved SWPPP included?			
E. WELL HEAD PROTECTION				
1	Are 1,000 foot radius wellhead protection area circles shown on an overall site plan?			
2	Are any hotspot activities present within Well Head Protection Zone? (not limited to the following			
2a	Ranges (Shooting/grenade)?			
2b	Fueling activities/tanks?			
2c	Vehicle washing facilities?			
2d	Maintenance bays?			
2e	Storage or use of hazardous materials?			

3	Are all toxic chemical and/or hazardous material storage and usage areas located outside of the 1,000 foot WHPA radius?			
4	Are all other potential sources of contamination (including stormwater infiltration swales or basins) located as far as possible from the nearest well (s) if location outside the WHPA is not possible?			
5	Are sinkholes located on-site, or does the site drain to a sinkhole? If so, a hydrogeological report is most likely a required submittal.			
6	Are any injection wells proposed? Please note that a covered drywell or seepage pit is usually classified as an injection well, even if used for condensate disposal. Floor drains connected to such systems are likely an injection well.			

GEPA MILCON DESIGN REVIEWS/CGGS PERMIT: SAFE DRINKING WATER

#	Description of Requirement	_____% Design Review <small>(✓ if complete)</small>	CGGS Permit App <small>(✓ if complete)</small>	Comments
A. SAFE DRINKING WATER				
1	Are backflow preventers included at each of the facility's water main tie-ins?			
2	Is the type of backflow preventer specified? (e.g., reverse pressure principle, double check). Is it appropriate for the facility type and level of risk?			
3	Are water system sizing calculations included? Is modeled pressure during fire flow greater than 20 psi?			
4	Are there any high-risk potential cross connections? (e.g., water storage tanks – incl. fire tanks, wastewater lift stations, vehicle washing facilities, etc.) Are they provided with appropriate backflow prevention devices? (.e.g, reverse pressure principle for pressure connections, air gap for storage tanks)			

GEPA MILCON DESIGN REVIEWS/CGGS PERMIT: WASTEWATER

#	Description of Requirement	_____% Design Review <small>(✓ if complete)</small>	CGGS Permit App <small>(✓ if complete)</small>	Comments
---	----------------------------	---	--	----------

A. WASTEWATER				
1	Is the facility connected to sanitary sewer?			
2	Are sewer loading and sizing calculations included?			
3	Are any building uses that would require pre-treatment connected to sewer? (e.g., vehicle washing systems, maintenance bays, commercial or high volume kitchens, floor drains in areas at risk of hazardous material spills)			
3a	Is proper pretreatment provided? (e.g., grease trap for kitchen, oil-water separator for maintenance bays, sedimentation and oil-water separator for vehicle washing)			
4	Is a wastewater pumping facility (lift station) included?			
4a	Is the lift station basis of design included?			
4b	Does the lift station include at least two (2) pumps?			
4c	Is the lift station connected to a standby power supply?			
4d	Are manufacturer sheets for the pumps provided?			

GEPA MILCON DESIGN REVIEWS/CGGS PERMIT: SOLID WASTE

#	Description of Requirement	_____% Design Review <small>(✓ if complete)</small>	CGGS Permit App <small>(✓ if complete)</small>	Comments
A. SOLID WASTE MANAGEMENT – DESIGN				
1	Does the design plan/ drawing provide a specific area for solid waste containers?			
2	Does the specific area for solid waste containers adequately handle the solid waste generated from the building or facility?			
B. SOLID WASTE MANAGEMENT – CGGS PERMIT APPLICATION				
1	Includes an adequate Solid Waste Management Plan?			

2	Does the Guam Environmental Protection Agency Solid Waste Disposal Plan include the following:			
2a	PROJECT NAME/ DPW/BLDG. PLAN NUMBER:			
2b	PROJECT LOCATION:			
2c	CONTRACTOR/OWNER:			
2d	CONTACT NUMBER:			
3	WASTE TYPE GENERATED;			
3a	Amount of waste to be generated;			
3b	Disposal site; (Solid Waste Management Facility (SWMF) that will receive the waste; (Composting, Storage, Processing, Hardfill, Transfer, or Landfill)			
4	Waste Transporter; SWMF that will be transporting the waste;			
5	A letter/contract agreement from a permitted Guam EPA Solid Waste Management Facility (SWMF) and Transporter			
6	Did the Applicant print, sign, and date the Guam Environmental Protection Agency Solid Waste Disposal Plan			
7	Is waste separated on-site? Such as construction and demolition debris (C&D), metals, woods (treated and untreated), recyclables, and trash;			
8	Are all waste generated and taken offsite recorded and monitored for the waste types and volumes?			
9	Are all waste manifest or trip tickets maintained and made available to Guam EPA upon request?			
10	Is waste generated at the site properly contained (roll-off bin, dumpster, or approved Guam EPA container); and disposed of every seven (7) days or sooner at a Guam EPA-permitted disposal facility?			

G EPA MILCON DESIGN REVIEWS/PERMIT: AIR POLLUTION (work in progress-WIP)

#	Description of Requirement	_____% Design Review <small>(✓ if complete)</small>	CGGS Permit App <small>(✓ if complete)</small>	Comments
A. DIRT & DUST CONTROL				
1	Is an adequate Dirt & Dust Control Plan included?			
2	Title V Permits for GenSets, Paint Booths, etc. (Construction and Operational)			

Project Number: _____

GEPA MILCON DESIGN REVIEWS/PERMIT: HAZWASTE/MATERIALS/SPCC (work in progress-WIP)

#	Description of Requirement	_____% Design Review <small>(✓ if complete)</small>	CGGS Permit App <small>(✓ if complete)</small>	Comments
A.				
1	Are the use of Above Ground Storage Tanks (ASTs) (Construction and Operational) anticipated?			