

Operational Environmental Considerations Course

Welcome to the Air Force (AF) Civil Engineer (CE) course for Contingency Operational Environmental Considerations. The course was developed to establish home station training requirements and is mandatory to improve the comprehension and identification of goals, policies, and responsibilities required to prevent environmental health hazards and avoid impacts before, during, and after a contingency mission.

The United States Air Force (USAF) environmental goals are geared towards minimizing risks to human health, safety, and natural resources. Whether it is at home station or during contingency operations, all environmental functions are interdependent. At the completion of this lesson, you should be able to identify the Air Force environmental goals, policies and guidance as well as environmental responsibilities.

Air Force Handbook 10-222 (AFH) Volume 4, Environmental Guide for Contingency Operations summarizes the actions and responsibilities of the engineer force with respect to environmental programs and duties associated with contingency deployments. This handbook, is a valuable reference guide on pertinent environmental issues. Likewise, this course will highlight key points from this guide in an effort to reiterate the importance of environmental awareness.

Every Air Force contingency mission is dependent upon the environment for sustainment. The Air Force environmental goals during contingency operations are focused on protection, prevention, planning, management, and mitigation. Failure to maintain basic environmental standards could result in illnesses, disease and non-battle injury (DNBI), or death.

Air Force environmental goals can be reached through processes that focus on prevention, source reduction, reuse, recycle, energy recovery, and waste treatment and disposal. Shown on the screen is the AF Waste Management Hierarchy of Preference Model. By applying these processes listed from most to least desirable, the Air Force can minimize impacts to the air, water, and land during all phases of a contingency operation; from pre-deployment to site closure.

Now that you have a clear picture of the Air Force environmental goals, it's essential you understand the reason why incorporating environmental stewardship is essential to meeting the USAF environmental goals. During all deployed activities, you should always have a clear understanding of the compliance, prevention, and restoration requirements. As a civil engineer, your commitment to this responsibility must never waiver.

Federal laws give the state and federal agencies the legal structure necessary to establish and enforce regulations. However, during an overseas contingency operation, the military must follow DoD established environmental requirements. The Overseas Environmental Baseline Guidance Document (OEBGD) provides guidance, procedures, criteria and standards for environmental compliance. DoD installations will usually have an environmental document published called, Final Governing Standards. This document is specific for a country and incorporates the OEBGD requirements, host nation environmental requirements, Status of Forces, and agreements. Shown on the screen are the federal and environmental laws and acts relevant to Air Force operations. While overseas contingency operations are excluded from most U.S. environmental laws, however, it is important to be aware of policies, treaties and international agreements that impact the conduct of military operations.

The Overseas Environmental Baseline Guidance Document or the Final Governing Standard will be the document that dictates compliance in a foreign country. AFH 10-222 Volume Four, Environmental Guide for Contingency Operations is the essential reference manual for engineers in the field and will summarize actions and responsibilities in a contingency situation. The 32 series of Air Force Instructions will provide volumes of detailed environmental information. This information is available at your fingertips by logging onto the Air Force E-publishing website. Additional training on Air Force environmental topics can be located on the CE Virtual Learning Center (CE-VLC) to assist with your career progression and knowledge.

Everyone in the Air Force has a role to play in protecting the environment. Training is integral to effectively accomplishing the Air Force environmental goals. Prime BEEF members must be knowledgeable and trained to effectively accomplish the Air Force environmental goals. Due to the differences in state and local environmental regulations, what may be permissible on one installation may not be permissible on another installation. Always determine what laws are applicable to your location by contacting the environmental function of the installation to identify applicable requirements. As a rule, the Air Force will compare U.S. environmental standards to a host nation and always follow the most stringent guidelines. All violators who break environmental laws could be court martialled or severely fined.

All the planning and preparation for environmental protection during pre-deployment, initial beddown, sustainment, and site closure/redeployment during contingency operations will be wasted if individuals do not act responsibly. The Environmental Staff develops policy and procedures to ensure all personnel comply with current applicable guidance. They also maintain records of all surveys and assessments conducted at the deployed location and provide assistance on all environmental matters. All individuals, performing actions involved in training and contingency tasks have a vital role in protecting the environment.

It will be up to the unit commander to determine what steps must be taken to accomplish the mission and minimize the risks to human health and the environment. Levels of environmental compliance may vary in each deployment phase. Environmental compliance may not be as attainable during the initial beddown phase deployments involving armed conflict or the threat of armed conflict.

This concludes the lesson on Environmental Goals. You learned about the information and guidance the Air Force implements to prevent environmental damage to natural resources and health risks to personnel on the installation and the surrounding area during contingency operations. You should be able to identify the Air Force environmental goals, policies and guidance, as well as the responsibilities to maintain environmental safety and compliance.

Welcome to the lesson on Environmental Planning. It's critical to keep all the many environmental factors throughout all phases of environmental planning on the forefront because the impact on military operations and contingencies could be significant. At the completion of this lesson, you should be able to comprehend the environmental planning and Agile Combat Support (ACS) process. During this lesson, site selection and survey processes of planning and Standard Operating Procedures (SOPs) will be addressed to provide insight into how to ready the force to prepare for the contingency.

During environmental planning, Commanders mitigate hazardous effects by identifying activities that pose risk to human health and safety as well as the environment before deployment, during sustainment, and after site closure of the installation.

The pre-deployment phase ensures that the deployment proceeds smoothly through planning and training. Planning environmental strategies prior to deployment, ensures greater compliance during all phases of deployment and is a required annex to the operational plan.

The process begins with initial planning then includes plans for initial beddown, sustainment, and site closure actions. During the initial planning stage, environmental considerations are given to ready the force and prepare the battle space. This stage ensures environmental compliance and strategies prior to deployment. Initial beddown facilities are typically austere with limited supplies and equipment which can complicate environmental protective efforts.

The Air Force ensures environmental excellence by following these basic steps for success; training, coordination, and occupational safety and health plans.

It's essential the environmental planning process has a clear picture of the proposed deployed area. The site selection surveys, and reports consist of a blend of information provided through the Expeditionary Site Planning (ESP) process and Geospatial Information Systems as shown on the screen. Teams help identify potential hazards and ensure environmental considerations are integrated into the site layout and beddown planning.

Once plans are developed, personnel must be organized, trained, and equipped to perform assigned duties prior to deploying. Several factors such as, operational threat environment, available local support and resources are considered when developing environmental plans. Planning considerations address how units will adhere to applicable environmental requirements, international agreements, and guidance. Site closure plans that include areas where some clean-up may be needed as well as procedures for HW/HM turn-in are also included in the standard operating plans.

This concludes the lesson on the Environmental Planning phase for contingency operations overseas. This lesson addressed multiple planning facets to achieve mission success. You should be able to comprehend the environmental planning and agile combat support process which is designed to protect the forces and the environment they will live and work in during a contingency. The various site selection, survey processes of planning as well as the SOPs were addressed.

The initial beddown phase typically takes place in austere facilities with limited supplies and equipment. The objective of this lesson is to address the actions that can be taken during initial beddown to ensure a healthy environment for personnel and minimize degrading effects on the environment. At the completion of this lesson, you should be able to identify the initial beddown standard operating procedure actions required to establish an environmentally healthy contingency operation for the list shown on the screen.

When forces arrive to their contingency operation, the Environmental Officer, with assistance from Fire Emergency Services (FES), Emergency Management (EM), Bioenvironmental Engineer (BEE), and Public Health (PH), will begin conducting awareness training on the topics shown on the screen. It's essential everyone becomes familiar with these topics.

The greatest impact on the environment takes place during the initial beddown. Prevention and Source Reduction is at the top of the environmental consideration of the Air Force waste management hierarchy of preference model which will lead ultimately to less waste for treatment and disposal.

During initial beddown much of the focus is on generating the mission, however, the impact of pollution prevention (P2) on personnel health and safety cannot be underestimated. It's essential P2 is put into action during this phase and remains throughout the contingency. If not, the environment will become degraded quickly and health and safety problems will escalate. Take a moment to review some of the actions you could be tasked with for P2. A more detailed list is available in AFH 10-222, Volume 4.

During initial beddown engineers must work to ensure water resources are adequate and protected from intentional and unintentional contamination. Shown on the screen are environmental considerations for source reduction for managing water resources during the early stages of deployments. Potable water in field environments could be limited during the initial beddown stage. It may be necessary to treat and reuse gray water generated from showers and laundry facilities. Gray water can be disposed of by transferring it to evaporation or absorption pits.

Trained personnel will manage HW if a primary means of disposing through Disposition Logistic Agency services (DLA) during initial beddown is not available. As a member of CE, you could be tasked to assist with establishing HW accumulation points (HWAPs) and a centralized HWSA to consolidate all wastes until proper turn-in procedures can be established locally or through DLA. The key aspects will be collection, storage, transportation, treatment and disposal. Take note, the HWSA items must be segregated and stored much the same way as HM to minimize the risk of accidental spills, vapor releases, and reactive explosions from ignitable, flammable, and corrosive materials. The HWSA should be equipped with fire extinguishers, first aid kits, emergency eyewash, and a shower in case of accidents, spills or other emergencies. You could be tasked to assist with HWAPs and should take note, HWAPs cannot store more than 55 gallons of HW or 1 quart of acute HW per waste stream before being transferred to the HWSA.

You've already learned the importance of locating HM/HW activities, storage, and refueling points as far away from natural resources such as surface waters and wetlands. Personnel should be educated on their responsibilities to protect and preserve natural & cultural resources. Also, everyone should have been advised to NEVER bring back plants, animals, or soil as a souvenir of your deployment. If mapping efforts were not made during the planning phase, then upon arrival you could be tasked with efforts to gain as much information as possible about forests and vegetation. This information will assist the commander in decision making for strategic military operations. The chances of causing significant damage to natural resources can be minimized when CE members are educated on environmental protection and work with environmental staff during initial beddown.

This concludes the lesson on the initial beddown phase. This lesson addressed what to expect in the early stages of a contingency operation. When supplies and equipment are limited in austere situations avoiding environmental hazards is critical which is why prevention, water sources, HM and HW were also discussed. The lesson also touched on the importance of natural and cultural resources surrounding the installation. You should be able to identify the initial beddown SOPs to establish an environmentally healthy living and work space during a contingency operation. Now let's test your retention knowledge with a few review questions.

During the sustainment phase of a contingency operation, increased efforts are placed on improving and upgrading the level of environmental protection for human health. At the completion of this lesson, you should be able to identify environmental actions regarding waste management.

Sustaining the force is critical to the mission. During this phase of a contingency operation environmental activities will be focused on supporting ACS with the assistance of contract support.

Waste management and minimizing the amount of waste is critical throughout the sustainment phase. Maintaining sanitary conditions will greatly reduce the chances of disease and non-battle injury (DNBI). AFH 10-222, Volume 4 provides specific details for environmental considerations for overseas contingency operations. Shown on the screen is the waste management hierarchy of preference model presented in the handbook. Prevention and Source Reduction remains a top environmental consideration just as it has during the previous phases of a contingency operation.

The increased efforts placed on improving and upgrading the level of environmental protection for human health was addressed throughout this lesson. You should be able to identify and recall environmental actions required by civil engineers during the sustainment phase of a contingency operation.

As soon as a determination is made to close a site and redeploy forces, it's essential particular actions are taken in order to restore the contingency location to its predeployment state. Upon notification of site closure, the actions shown on the screen will need to be conducted. At the completion of this final lesson, you should be able to comprehend and identify closing standards, disposition of HM and HW, site clean-up and closure report.

Comprehending the closure standards and ensuring they are consistent with applicable guidance policy is critical to the success of the operation. As a member of CE, you could be tasked with actions to return the site to the same environmental standard that it was prior to initial beddown.

The closure standards should include a closure survey. This document identifies critical environmental issues that must be resolved prior to departure and if remedial actions might be required. AFH 10-222, Volume 4, Environmental Considerations for Overseas Contingency Operations provides a checklist. In it the closure plan addresses, procedures for turn-in and accountability of HW and Waste excess, HM remediation, and documentation processes.

When disposing of hazardous waste and materials it's essential to know the local laws whether you are at a home station or overseas contingency.

The closure report ensures the Air Force complied and upheld its commitment to environmental excellence during a contingency and will help defend the U.S. against unsubstantial environmental damages and claims of degradation. Contact the environmental staff for complete guidance on preparing the closure reports and submit any issues or findings for the final report.

This completes the lesson on site closure/redeployment. This lesson addressed specific requirements shown on the screen which will recover the forces, document the actions taken by the Air Force to maintain its commitment to environmental excellence, and defend the U.S. against unsubstantiated environmental damages and claims of degradation. You should be able to comprehend and identify closing standards, disposition of hazardous materials/hazardous waste, site cleanup, and the closure report requirement.

This concludes the course on Environmental Considerations of Contingency Operations. This course was developed to establish training requirements and improve the comprehension and identification of goals, policies, and responsibilities required to prevent environmental health hazards and avoid impacts before, during, and after a contingency mission.

The learning outcomes for this course are listed on the screen. You should be able to comprehend the Air Force Environmental goals, policies, and responsibilities addressed in this course. You should also be able to identify the Air Force environmental planning/predeployment responsibilities. You should also be able to recall initial beddown procedures. Additionally, you should know the sustainment requirements to keep the installation environmentally safe and healthy as well as recognize the procedures for site closure and redeployment.