

DEPARTMENT OF THE ARMY
Engineer Research and Development Center, Corps of Engineers
Waterways Experiment Station, 3909 Halls Ferry Road
CEERD-SO-Z Vicksburg, Mississippi 39180-6199

Center Regulation
No. 200-1-1

20 April 2000

Environmental Quality
ENVIRONMENTAL ASSESSMENT OF ACTIVITIES

1. Purpose. This regulation prescribes U.S. Army Engineer Research and Development Center (ERDC) procedures for considering potential environmental impacts of proposed activities during planning and decision making.
2. Applicability. This regulation is applicable to:
 - a. The ERDC employees, contractors, and others who perform work for ERDC.
 - b. Tenants of ERDC facilities.
 - c. Construction, operation, and maintenance activities, as well as research, development, testing, and evaluation activities.
 - d. The ERDC activities at facilities that are owned, leased, rented, or otherwise used by ERDC, including military installations.
 - e. The ERDC activities at publicly owned locations, foreign countries, and international locations.
3. Glossary. See Appendix C.
4. Reference. AR 200-2, Environmental Effects of Army Actions, 23 Dec 88.
5. Policy.
 - a. All ERDC activities within the United States shall comply with applicable Federal, state, and local environmental laws and regulations. Activities in foreign nations shall comply with applicable international agreements such as treaties, Status of Forces Agreements (SOFAs), supplementary or other bilateral and multilateral agreements, country-specific Final Governing

* This regulation supersedes SR 1165-1-1, 16 Jun 78.

Standards (FGS) or, in the absence of FGS, the Overseas Environmental Baseline Guidance Document (OEBGD), and EO 12088. Activities in international waters and air space shall comply with United States or international requirements, whichever is more stringent.

b. The minimal, perfunctory, or token compliance with regulatory requirements is not acceptable. ERDC activities shall fully comply with the spirit and intent of environmental regulations to avoid, minimize, or abate adverse environmental impacts.

c. Planning for an activity shall include a plan, reviewed by the Laboratory Director and approved by the Commander, for site cleanup, proper disposal of any residual materials, and restoration of the environment to the original condition to the greatest extent practicable upon completion of the activity.

6. Responsibilities.

a. Chief, Safety and Environmental Management Office. Chief, Safety and Environmental Management Office shall exercise primary staff responsibility for environmental compliance of ERDC activities by:

(1) Recommending ERDC policy and providing guidance to assist ERDC managers in meeting the requirements of this regulation.

(2) Monitoring compliance with this regulation.

(3) Assisting Laboratory Directors and researchers in determining which activities require environmental assessments when requested.

(4) Advising and assisting in completion of environmental assessments and reviewing completed environmental assessments for completeness and correctness when requested.

b. Directors of Laboratories and the Directorate of Public Works. Directors of Laboratories and the Directorate of Public Works shall:

(1) Provide resources and emphasis necessary to ensure compliance with this regulation and with applicable Federal, state, and local environmental laws and regulations.

(2) Ensure that qualified individuals assess potential environmental impacts of contemplated activities in accordance with paragraph 7 below.

(3) Reward and formally recognize individuals who exceed minimum environmental regulatory requirements.

(4) Establish a "zero tolerance" for failure to comply with environmental regulatory requirements. Initiate appropriate activities in the event a manager disregards, or fails to consider, established environmental requirements. Any activity which results in either adverse publicity or a fine, citation, Notice of Violation, or Agreed Order by a regulatory authority shall be deemed serious.

(5) Initiate actions and fund emergency response, remedial/restoration activities, and payment of fines resulting from activities of the organization.

7. Environmental Assessment of Contemplated Activities.

a. During planning and decision-making stages of a contemplated activity (including new activities and changes in existing activities), the potential environmental impacts and controversies of the activity shall be assessed with regard to:

- (1) The National Environmental Policy Act (NEPA)
- (2) The Clean Air Act
- (3) The Clean Water Act
- (4) The Resource Conservation and Recovery Act (RCRA)
- (5) The Toxic Substances Control Act (TSCA)
- (6) The Endangered Species Act
- (7) The Historic Preservation Act
- (8) The Noise Control Act
- (9) The Coastal Zone Management Act
- (10) Other Federal, state, and local environmental laws and regulations

b. A decision matrix to assist in determining whether an environmental assessment is required is given at Appendix A.

c. The environmental assessment shall be documented (in hard copy), signed by the individual(s) conducting the assessment, and made a part of the official activity file. Completion of the certification and checklists given in Appendix B may be used to facilitate and to document the assessment process. Other equivalent systems may be used provided the system results in a signed hard copy comprehensive environmental assessment of the contemplated activities.

d. Any identified potential environmental controversies or uncertainties, required environmental permits or notifications, required public hearings, potentially adverse environmental effects, or planned mitigation activities shall be described in a memorandum and staffed through the Laboratory Director/Support Staff Director/Chief to Chief, Safety and Environmental Management Office, with an information copy furnished to the Commander.

e. Any required environmental permits shall be obtained and any required environmental notifications shall be provided before initiating an activity.

f. If required by governing regulations, public hearings shall be conducted early in the environmental assessment/decision-making process.

g. If an environmental assessment cannot be completed for a proposed activity, or if it appears that a proposed activity may violate applicable environmental laws or regulations, may have a significant adverse impact upon the environment, or may be highly controversial, the proposed activity shall not be initiated without the approval of the Commander.



LEWIS E. LINK, JR.
Acting Director



ROBIN R. CABABA
Colonel, Corps of Engineers
Commander

3 Appendices
APP A, Decision Matrix
APP B, Environmental Assessment
Checklist for ERDC Operations and Activities
APP C, Glossary

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APPENDIX A: DECISION MATRIX

<p style="text-align: center;">AREA OF ENVIRONMENTAL CONCERN (AS APPLICABLE TO CONTEMPLATED ACTIVITY, PROJECT, OR FACILITY)</p>	RISK			
	<p>NO POSSIBILITY OF DESCRIBED EFFECTS OR IF PRESENT, THE EFFECTS CANNOT LEAVE ENCLOSED LABORATORY BUILDING</p>	<p>LOW PROBABILITY OF DESCRIBED EFFECTS, BUT PLANS CONSIDER AND MITIGATE EFFECTS</p>	<p>HIGH PROBABILITY OF DESCRIBED EFFECTS OR CONTROVERSY OR EFFECTS ARE UNKNOWN</p>	<p>PRIOR NOTIFICATION, PERMIT, OR LICENSE REQUIRED BY LAW OR REGULATION</p>
<p>Air emissions from:</p> <ul style="list-style-type: none"> a. asbestos or lead paint disturbance b. open burning c. incinerators d. smoke or dust that impairs visibility e. emission of vinyl chloride or benzene vapors f. procurement, use, or discharge of: <ul style="list-style-type: none"> (1) Class I ozone depleting chlorofluorocarbon (CFC) refrigerants (2) carbon tetrachloride or 1,1,1-trichloroethane (methyl chloroform) solvents (3) Halon fire suppression chemicals 	N/A	R/D	E/A	E/A
Damage, destruction, or alteration of cultural, archaeological, or historic resources	N/A	R/D	E/A	E/A
On-site release or disposal of hazardous materials or hazardous wastes	N/A	R/D	E/A	E/A
Damage, destruction, or alteration of wetlands, shorelines, forests, protected, threatened, or endangered species or critical habitats	N/A	R/D	E/A	E/A
Production of noise that goes beyond the facility boundary in excess of that normal for the area	N/A	R/D	E/A	E/A
Creation of an oil sheen on the surface of waters of the United States or adjoining shorelines	N/A	R/D	E/A	E/A
Operation of on-site solid waste landfill, incinerator, or transfer station	N/A	R/D	E/A	E/A
Installation of underground storage tanks	N/A	R/D	E/A	E/A
Discharge of liquid to the environment	N/A	R/D	E/A	E/A
Real estate transaction	N/A		E/A	E/A
<p>Importation of soil, plants, plant parts (including lumber and seeds), living organisms, or other regulated material into the 48 contiguous United States, or shipment of such materials from a quarantined area into a non-quarantined area. (For additional information, contact the Plant Protection Division of the state Department of Agriculture in the destination state.)</p>	N/A			E/A

LEGEND:

N/A = No environmental assessment required

R/D = Document record of decision; no environmental assessment required

E/A = Conduct an environmental assessment in the area(s) of concern

**APPENDIX B
ENVIRONMENTAL ASSESSMENT OF
PROPOSED ERDC ACTIVITIES**

INSTRUCTIONS: Some proposed ERDC activities require an environmental assessment during planning stages. Completion of this certification, together with the enclosed checklist, may be used to perform and to document the environmental assessment. The certified, completed document must be retained in the official project file.

Any potential environmental controversies or uncertainties, any required environmental permits or notifications, any required public hearings, any potentially adverse environmental effects, and any planned mitigation activities shall be described in a memorandum and staffed through the Laboratory Director/Support Staff Director/Chief to the Chief, Safety and Environmental Management Office, with an information copy furnished to the ERDC Commander prior to beginning the activity.

1. Activity information:

Project name:

Activity:

Activity location:

Estimated activity start date:

2. Brief explanation of any "YES" answers to the enclosed checklist questions, any potential environmental controversies or environmental uncertainties, any required environmental permits or notifications (including public hearings), any potentially adverse environmental effects, and any planned mitigation activities (attach additional pages as necessary):

3. I certify that, to the best of my knowledge, this represents an accurate, objective assessment of potential environmental issues regarding the above activity.

Encl

(Signature)

(Date)

(Printed Name)

(Title)

SECTION 1. AIR EMISSIONS CHECKLIST

QUESTIONS	YES	NO
1. Will the activity install, construct, alter, or operate steam boilers larger than 10 million BTUs/hr, pathological incinerators, paint spray booths, or petroleum/oil/lubricant (POL) tanks?		
2. Will the activity operate a fuel burner (central steam plant or hot water steam boiler)?		
3. Will the activity operate an incinerator (i.e., for classified documents, solid waste, sewage sludge, etc.)?		
4. Will the activity operate fuel-dispensing facilities?		
5. Will the activity use any volatile organic compound (VOC) based solvent degreasers?		
6. Will the activity operate maintenance shops for wheeled or tracked vehicles or aircraft, or any additional shop activities that generate any form of air pollution (i.e., vehicle emissions systems, ventilation systems for various operations, etc.)?		
7. Will the activity operate equipment or processes that could lead to fugitive emissions of vinyl chlorides or benzene?		
8. Will the activity procure/use chlorofluorocarbons (CFCs), halon, or other ozone depleting chemicals?		
9. Will the activity repair any units containing refrigerant?		
10. Will the activity recycle/reclaim CFCs, halon, or other ozone depleting chemicals?		

NOTE:

CLASS I OZONE DEPLETING CHEMICALS

R-11	R-12	R-13	R-111	R-112
R-113	R-114	R-115	R-211	R-212
R-213	R-214	R-215	R-216	R-217
halon-1211	halon-1301	halon-2402	carbon tetrachloride	methyl chloroform

CLASS II OZONE DEPLETING CHEMICALS

R-21	R-22	R-31	R-121	R-122
R-123	R-124	R-131	R-132	R-133
R-141	R-142	R-221	R-222	R-223
R-224	R-225	R-226	R-231	R-232
R-233	R-234	R-235	R-241	R-242
R-243	R-244	R-251	R-252	R-253
R-261	R-262	R-271		

SECTION 2. CULTURAL RESOURCES CHECKLIST

QUESTIONS	YES	NO
1. Will the activity involve any cultural resources that may be eligible for, or that are currently listed in, the National Register of Historic Places?		
2. Will the activity involve any cultural resources (archaeological sites, or buildings over 50 years old) that have not been evaluated for the National Register?		
3. Will the activity involve any archaeological artifacts in storage?		
4. Will the activity involve any locations of Native American burials, cemeteries, or human remains?		
5. Are there any areas at the site of the activity considered to have religious importance to any Native American Tribe?		

SECTION 3. HAZARDOUS MATERIALS CHECKLIST

QUESTIONS	YES	NO
<p>1. Will the activity involve the use of hazardous materials? If so, attach a Material Safety Data Sheet (MSDS) for each hazardous material to be used at the activity.</p> <p>NOTE: Hazardous materials include <u>health hazards</u>: carcinogens toxic materials reproductive toxins irritants corrosives sensitizers materials which damage the lungs, skin, eyes, or mucous membranes</p> <p>and <u>physical hazards</u>: combustible or flammable liquids, solids, or compressed gases explosives or propellants organic peroxides oxidizers pyrophorics unstable (reactive) or water-reactive materials</p>		
<p>2. Will the activity require an Oil and Hazardous Substances Contingency Plan (OHSCP)?</p>		
<p>3. Will the activity store or use any extremely hazardous substances?</p>		
<p>4. Will the activity store at one time 10,000 lb or more of any hazardous substances that requires an MSDS?</p> <p>NOTE 1: Fuel is a hazardous substance that requires an MSDS.</p> <p>NOTE 2: Using water as a basis of measurement, 10,000 lb is approximately 1,250 gal.</p>		
<p>5. Will the activity store or use any flammable/combustible liquids?</p>		
<p>6. Will the activity store or use any compressed gases?</p>		

SECTION 4. HAZARDOUS WASTE CHECKLIST

QUESTIONS	YES	NO
1. Will the activity involve the generation, treatment, storage, or disposal of hazardous waste? (Contact the Safety & Environmental Management Office if you need help in determining whether wastes are classified as hazardous.)		
2. Does the activity involve an RCRA-permitted area?		
3. Will the activity accept hazardous wastes from other facilities for treatment, storage, or disposal?		
4. Will the activity operate designated hazardous waste accumulation points?		
5. Will the activity store hazardous waste on-site (either temporarily or for long term) at other than an accumulation point?		
6. Will the activity treat hazardous waste on-site?		
7. Will the activity dispose of any hazardous waste on-site?		

SECTION 5. NATURAL RESOURCES CHECKLIST

QUESTIONS	YES	NO
1. Will the activity involve any outdoor recreation areas (i.e., athletic fields, walking/hiking tracks, off-road vehicle tracks, etc.)?		
2. Do any areas of the activity involve any permitted or regulated wetlands?		
3. Do any areas of the activity lie within a 25-year, 50-year, or 100-year flood plain?		
4. Do any areas of the activity involve shorelines?		
5. Do any areas of the activity involve forests?		
6. Are there any protected, threatened, or endangered species or critical habitats where the activity will be performed?		

SECTION 6. OTHER ENVIRONMENTAL ISSUES CHECKLIST

QUESTIONS	YES	NO
1. Does this activity represent a change, or addition, to a project for which an environmental assessment has previously been completed?		
2. Are personnel not under ERDC management (e.g., non-ERDC contractors, non-ERDC Federal employees, volunteers, or the general public) actively involved in the activity?		
3. Will the activity have any operations that produce environmental noise or noise that goes outside the facility (e.g., firing ranges, helicopter pads, generators, motor vehicle operation in excess of that normal for the area)?		
4. Will the activity affect facilities that are not owned or leased by ERDC?		
5. Does the activity involve a real estate transaction?		
<p>6. Does the activity involve the importation of soil, plants, plant parts (including lumber and seeds), living organisms, or other regulated material into the 48 contiguous United States, or the shipment of such materials from a quarantined area into a non-quarantined area?</p> <p>If so, a permit will be required. (For additional information, contact the Plant Protection Division of the state Department of Agriculture in the destination state.)</p>		

**SECTION 7. HERBICIDES, FUNGICIDES, INSECTICIDES, PESTICIDES, OR
RODENTICIDES CHECKLIST**

QUESTIONS	YES	NO
1. Will the activity use herbicides, fungicides, insecticides, pesticides, or rodenticides applied by either a contractor or Government personnel? NOTE: Commercial applicators must be licensed.		
2. Will any waste herbicides, fungicides, insecticides, pesticides, or rodenticides be disposed of at the activity?		
3. Will herbicides, fungicides, insecticides, pesticides, or rodenticides be stored on the activity?		

SECTION 8. PETROLEUM, OIL, AND LUBRICANT CHECKLIST

QUESTIONS	YES	NO
1. Will the activity involve the storage, dispensing, disposal, or bulk transportation of petroleum, oil, or lubricants?		
2. Will the activity involve onshore or offshore facilities that will discharge, or due to their location could reasonably be expected to discharge, oil in harmful quantities, as defined in 40 CFR part 110, into or upon the navigable waters of the United States or adjoining shorelines? If so, a Spill Prevention, Control, and Countermeasures Plan (SPCC) is required.		
3. Will the activity generate, accumulate, or store used oil?		
4. Will the activity involve any pipelines?		
5. Will the activity operate any petroleum dispensing stations?		

SECTION 9. SOLID WASTE CHECKLIST

QUESTIONS	YES	NO
1. Will the activity generate waste?		
2. Will the activity operate an on-site waste management unit: sanitary landfill, rubbish landfill, incinerator, or transfer station? NOTE: A permit will probably be required.		
3. Will the activity contract for the collection and disposal of its solid waste?		
4. Will the activity operate a waste-recycling program?		
5. Will the activity dispose of ash residue or sludge off-site or on-site?		
6. Will the activity receive refuse from outside the United States?		

SECTION 10. STORAGE TANK CHECKLIST

QUESTIONS	YES	NO
1. Will the activity involve aboveground storage tanks (ASTs) used for the storage of petroleum products or hazardous waste?		
2. Will the activity involve any underground storage tanks (USTs) used for the storage of petroleum products or hazardous waste?		
3. Will the activity involve any out-of-service or abandoned underground storage tanks?		

SECTION 11. TOXIC SUBSTANCES CHECKLIST

QUESTIONS	YES	NO
1. Will the activity involve materials that may be polychlorinated biphenyls (PCBs) or PCB-contaminated?		
2. Will any PCBs or PCB-contaminated fluid be used or stored at the activity in: Transformers Capacitors Electromagnets Heat Transfer or Hydraulic Systems Circuit Breakers		
3. Will the activity dispose of any PCBs or PCB items?		
4. Will the activity transport any PCBs?		
5. Does the activity involve demolition or renovation of an existing building that requires prior notification of state Department of Environmental Quality (DEQ)?		
6. Does the activity involve material that may be asbestos or asbestos-containing-materials (ACM)?		
7. Does the activity potentially involve the exposure of humans to radon gas?		
8. Does the activity involve the disturbance or removal of any paint that may be lead-based?		

SECTION 12. WASTEWATER CHECKLIST

QUESTIONS	YES	NO
<p>1. Will the activity involve any of the following types of discharges to the environment?</p> <p>Drainage water from dredge and fill materials? Wastewater treatment plant? Process wastewater? Heat/power production cooling blowdown water? Stormwater runoff from fuel dispensing areas, airfields, or parking lots/aprons and maintenance facilities? Vehicle wash facilities? Metal plating shops? Sedimentation holding ponds or seepage pits from vehicle/aircraft washing, maintenance shop drainage (shop operations and motor parks), and other activities? Cooling towers or pass through water? Septic systems? Fresh water wetlands? Industrial waste system/discharge? Lines which bypass treatment structures? Other point-source discharges?</p> <p>NOTE: If so, a National Pollutant Discharge Elimination System (NPDES) and/or State Pollutant Discharge Elimination System (SPDES) permit may be required.</p>		
<p>2. Will the activity discharge into a publicly owned treatment works (POTW) any of the following?</p> <p>Process wastewater? Domestic (sanitary) wastewater? Industrial wastewater treatment plant effluent? Other discharge?</p>		
<p>3. Are there any discharge bypass lines in the system?</p>		
<p>4. Will the activity have any sludge disposal areas from vehicles/equipment washing operations?</p>		
<p>5. Is vehicle maintenance performed on-site?</p>		

SECTION 13. WATER QUALITY CHECKLIST

QUESTIONS	YES	NO
1. Will the activity operate a public drinking water system?		
2. Will the activity maintain wellheads?		
3. Will the activity operate an underground injection well?		
4. Will the activity involve any groundwater aquifers?		
5. Will mobile water purification units be used in the field? (If so, the backwash from these mobile units must be properly managed.)		

APPENDIX C

GLOSSARY

1. Activity means any new activity, physical endeavor, or operation that is likely to affect the natural and physical environment or the relationship of people with that environment. The term also includes changes in the scope of any existing activity, physical endeavor, or operation if the change is likely to affect the natural and physical environment or the relationship of people with that environment. The scope of an activity includes the final stages (i.e., site cleanup, restoration, and waste disposal.)

2. Effects include:

a. Direct effects - consequences of an activity that occur at the same time and place as the activity.

b. Indirect effects - consequences of an activity which occur later in time or farther removed in distance, but are still reasonably foreseeable. Indirect effects may include growth-inducing effects and other effects related to induced changes in the pattern of land use, population density or growth rate, and related effects on air and water and other natural systems, including ecosystems.

Effects and impacts as used in this regulation are synonymous. Effects include ecological (such as the effects on natural resources and on the components, structures, and functioning of affected ecosystems), aesthetic, historic, cultural, economic, social, or health, whether direct, indirect, or cumulative. Effects may also include those resulting from activities that may have both beneficial and detrimental effects, even if on balance the effect appears to be beneficial.

3. Facility includes land, buildings, overhead air space, and underwater/surface water locations where a contemplated activity will occur.

4. Mitigation includes:

a. Avoiding impact by not undertaking a certain activity or parts of an activity.

b. Minimizing impacts by limiting the degree or magnitude of the activity and its implementation.

c. Rectifying the impact by repairing, rehabilitating, or restoring the affected environment.

d. Reducing or eliminating the impact over time through preservation and maintenance operations during the life of the activity.

e. Compensating for the impact by replacing or providing substitute resources or environments.