



REPUBLIC OF THE MARSHALL ISLANDS
ENVIRONMENTAL PROTECTION AUTHORITY

EARTHMOVING REGULATIONS

1989

(INCORPORATING 1994 AMENDMENTS)

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PART I - GENERAL PROVISIONS

1. Authority
 - a) These regulations are promulgated by the Republic of the Marshall Islands Environmental Protection Authority with the approval of the Minister of Health Services pursuant to Section 21 of the National Environmental Protection Act 1984.
 - b) These regulations supersede all previous publications and repeal 63 Trust Territory Code Chapter 13, Subchapter III, Regulations Concerning the Control of Earthmoving and Sedimentation in the Trust Territory of the Pacific Islands.

- c) These regulations have the force and effect of law.

2. Effective date

These regulations shall come into force one day after their approval by the Cabinet.

3. Interpretation

In these regulations, unless the context otherwise requires:

a) "Accelerated Erosion" means the removal of the surface of the land through the combined action of activities and natural processes, at a rate greater than would result through the action of natural processes alone.

b) "Accelerated Sedimentation" means the sedimentation resulting from the combined action of human activities and the natural processes resulting from storms, heavy rains, and high winds at a rate greater than would result through the action of natural processes alone.

c) "Authority" means the Republic of the Marshall Islands Environmental Protection Authority or its authorized representative.

d) "Containment area" means an area enclosed by a rigid structure such as earthen or rock walls or metal sheet piling in the water that contains the sedimentation of earthmoving activities within the area and protects open waters outside the area.

e) "Conveyance Channel" means a channel other than an interceptor channel used for the conveyance of water through a project area.

f) "Cultural resource" means an historical, architectural, archeological or cultural site, remain, or artifact, in any place or object that enhances the knowledge or preservation of the environmental and cultural heritage of the Marshallese people.

g) "Diversion Terrace" means a channel or dike constructed upslope of a project for the purpose of diverting water away from the unprotected slope.

h) "Earthmoving" means any construction or other activity which disturbs or alters the surface of the land, a coral reef, or bottom of a lagoon, including, but not limited to, excavations, dredging, embankments, land reclamation in a lagoon, development, subdivision development, mineral extraction, ocean disposal, and the moving, depositing or storing of soil, rock or earth.

i) "Embankment or Fill" means a deposit of soil, rock, or other material placed by human activity.

j) "Erosion" means the natural process by which the surface of the land is worn away by the action of water or chemical action.

k) "Excavation" means the act of forming a cavity by, but not limited to, quarrying, dredging, uncovering, displacing or relocating soil, coral, or rock.

l) "Interceptor Channel" means a channel or dike constructed across a slope for the purpose of intercepting water, reducing the speed of water flow, or diverting it to outlets where it can be disposed.

m) "Land Developer" means any person who is engaged in land development as a principal, rather than as a contractor.

n) "Land Development" means the construction, installing, placing, planting, or building of surface structure, land reclamation, navigation channels, harbors, utility lines, piers, shopping centers and malls, causeways, recreational areas, airports, complexes, hotels, schools, roads, parking areas, or any other similar activity.

o) "Person" means any individual, corporation, company, association, partnership, agency, authority, commission, foundation, the Republic of the Marshall Islands government or its political subdivisions, or any local, state, or foreign government, municipality, or other institution or entity, whether public or private.

p) "Sediment" means soils or other surface materials transported by water as the result of erosion, earth activity on a reef or in a lagoon, excavation or fill.

q) "Sedimentation" means the process by which sediment is suspended in the water or is deposited on the bottom body of water, including, but not limited to, rivers, streams, ponds, lakes, lagoons or the tops of reefs.

r) "Sedimentation Basin" means a type of solids separation facility consisting of a walled depression on land which dredged materials are discharged for the purpose of dewatering the materials and preventing them from damaging a coastal and marine areas.

s) "Sedimentation Retention Boom" means a watertight membrane or curtain suspended from floats and weights at the bottom of water bodies arranged in a manner that will confine sediments to the local area of marine earthmoving activity.

t) "Stabilization" means the proper placing, grading or covering of soil, rock or earth, including the vegetation, to ensure their resistance to erosion, sliding, or other movement.

u) "Subdivision" means the division or redivision of a lot, tract, or parcel of land by any means into two or more tracts, parcels, or other division of land including changes in existing lot lines for the purpose, whether immediate or future, of transfer of ownership, or building or lot development.

4. Applicability

These regulations shall apply to all earthmoving activities as follows:

a) Ongoing activities or operations of a continuous nature such as dredging or quarrying in progress on the effective date of these regulations shall be in compliance with these regulations within three months from the effective date.

b) Construction operations in progress on the effective date of these regulations shall be in compliance with these regulations within three months from the effective date.

c) All new projects and new operations that begin on or after the effective date of these regulations shall be in compliance with these regulations.

5. General requirement

a) All earthmoving activities within the Republic of the Marshall Islands shall be conducted in accordance with these regulations and in such a way as to prevent accelerated erosion, accelerated sedimentation, and disturbance of potential cultural resources. To accomplish this, all persons engaging in earthmoving activities shall design, implement and maintain erosion and sedimentation control, and cultural preservation measures which effectively prevent accelerated erosion, accelerated sedimentation, and adverse impact on cultural resources.

b) In addition to the requirements of these regulations, earthmoving activities may also be subject to requirements emanating from other regulatory instruments pursuant to the National Environmental Protection Act 1984, the Conservation Act 1988, the Historic Preservation Act 1991, the Tourism Act 1991, and other national and local enactments.

PART II - EROSION AND SEDIMENTATION CONTROL PLAN

6. Plan required

a) The erosion and sedimentation control measures referred to in regulation 5 of these regulations shall be set forth in a plan, which plan shall be available at all times at the site of the activity and shall be filed with the Authority by the land developer.

b) The Authority may require the land developer to attend a preliminary meeting with the Authority and other interested parties to determine the scope of the plan.

7. Preparation

The erosion and sedimentation control plan shall be prepared by a person trained, experienced, and certified, if applicable in erosion and sedimentation control methods and techniques.

8. Factors

The erosion and sedimentation control plan shall be designed to prevent acceleration of erosion and accelerated sedimentation and shall consider all factors which contribute to erosion and sedimentation, including, but not limited to, the following:

- (i) the topographic or hydrographic features, or both, of the project area;
- (ii) the types, depth, slope and area of the soils, coral and reef;
- (iii) the original state of the area as to plant and animal life and ecosystem functioning;
- (iv) whether any living coral reef, seagrass bed, mangrove, freshwater lake, sandy beach, or other vulnerable ecosystem may be affected by the earthmoving;
- (v) the proposed alteration to the area;
- (vi) the amount of runoff from the project area;
- (vii) the staging of earthmoving activities;
- (viii) temporary control measures and facilities for use during earthmoving activity;
- (ix) permanent control measures and facilities for long-term protection;
- (x) a maintenance program for the control facilities including disposal of materials removed from the facilities or project area;
- (xi) whether a designated coastal area of special concern is in the vicinity;
- (xii) whether cultural resources are in the vicinity;
- (xiii) whether designated tourism or fishery resources are in the vicinity;
- (xiv) the presence and vulnerability of nearby beaches to erosion.

9. Project involving water

If the project involves an earthmoving activity in a lagoon, or a reef, or any body of water, the Authority may require the project designer to map and describe existing ecosystems, plants, animals, the coastal zone management boundary and coastal areas of importance as well as maximum and minimum turbidities.

PART III - EROSION AND SEDIMENTATION CONTROL MEASURES AND FACILITIES

10. Control measures and facilities required

The erosion and sedimentation control measures and facilities set forth in regulations 11 and 12 of these regulations shall be incorporated into all earthmoving activities unless the designer of the erosion and sedimentation control plan shows that alternative measures or facilities, or inclusion of other measures or facilities, will prevent accelerated erosion and accelerated sedimentation.

11. Control measures

- a) All earthmoving activities shall be planned in such a manner so as to minimize the area of disturbed land, lagoon.
- b) All sedimentation resulting from underwater earthmoving activities shall be contained, confined and restricted such a manner that turbidities will be kept to a minimum.
- c) All permanent facilities for the conveyance of water around, through or from the project site shall be designed to limit the velocity of flow in the facilities to a speed that will not contribute to erosion.
- d) All slopes, channels, ditches or any disturbed area shall be stabilized as soon as possible after the final ground final earthmoving has been completed within a section or area of the project.
- e) Where it is not possible to permanently stabilize a disturbed area immediately after the final earthmoving has been completed or where the activity stops for more than 14 days, interim stabilization measures shall be promptly implemented.
- f) Before filling or land development within a body of water or tidal zone, adequate seawalls or breakwater facilities, or both, shall be constructed to safely contain the fill without failure and to prevent accelerated sedimentation.
- g) All runoff from a project area shall be collected and diverted to facilities for removal of sediment.
- h) Runoff from a project area shall not be discharged into the waters of the Republic of the Marshall Islands unless by effective means to prevent sedimentation.

12. Control facilities

- a) Sedimentation retention booms, containment areas, or sedimentation basins, or any combination of the three, shall be used to restrict accelerated sedimentation around earthmoving or earth disturbing activity on reefs or in lagoons in all cases, when a finding has been made after actual demonstration that no facilities are needed to prevent accelerated sedimentation. Sedimentation basins shall be required for any earthmoving activity employing a pipeline cutterhead, suction dredge, or similar excavation equipment. The Authority shall determine whether sedimentation basins, sedimentation retention booms, or containment areas are appropriate. Approval of use of alternate facilities or a finding that no facilities are necessary shall be made in writing by the Authority.
- b) Diversion terraces:
 - (i) shall be constructed around a project area to convey runoff around the project area, and shall have sufficient capacity to convey such runoff without overflowing;
 - (ii) shall be grassed or lined with erosion-resistant materials to prevent accelerated erosion and sedimentation within the channel; and
 - (iii) shall be designed so that outlet structures reduce the discharge speed to a level that will not cause accelerated erosion and are stabilized before use.
- c) Seawalls and breakwaters to contain fill or reclaimed land shall be sufficiently watertight to prevent accelerated sedimentation, well constructed on a solid foundation, and built to a level at least 2 feet above the highest tide or flood level based on historical knowledge. Sloping porous revetments with armor stone are preferred over impervious vertical walls. Impervious vertical walls may reflect wave energy, remove sediment and soil, and cause erosion of the shoreline or beach areas. These facilities shall be planned, designed and constructed under the direction of a person trained and experienced in building seawalls and breakwater facilities.
- d) Interceptor channels:
 - (i) may be used within a project area to reduce the discharge speed of flow and prevent accelerated erosion;
 - (ii) shall convey collected waters to sedimentation basins or to vegetated areas but not directly to streams or bodies of water and

OUTLETS OF WATER, AND

(iii) shall be designed so that outlets to vegetated areas reduce the discharge speed to a level that will not cause accelerated erosion.

e) All conveyance channels shall be grassed or lined with erosion resistant materials or designed to reduce the speed of flow of surface runoff to a level that will not cause accelerated erosion.

f) Solids separation facilities:

(i) shall have a basin for settling solids out of water that is structurally sound and has sufficient capacity to hold water that drains into the basin until the solids have settled out;

(ii) shall have a basin which is cleaned when the settling of solids has reduced the basin's capacity by 25%;

(iii) shall be designed so that outlet structures are large enough to allow only adequately settled water to be discharged, and at a rate that will not cause accelerated erosion.

g) The discharge from construction of fills, whether by pumps, hydraulic dredges, or any other means, from construction of fills shall be sufficiently treated and sufficiently retained with dikes, levees, seawalls, or other structures so that accelerated sedimentation will not take place in the waters which receive the effluent. Overflow of dredged materials from a containment structure into open waters or land areas is prohibited. Transmission pipelines transporting fill material shall be maintained in a safe condition at all times of excavation and fill operation.

h) Barges, scows, platforms, vessels, or anything used for hauling dredged material operating in the waters of the Republic of the Marshall Islands shall be sufficiently tight and secure that accelerated sedimentation will not occur by reason of leaking or premature dumping due to faulty mechanisms.

PART IV - CULTURAL PRESERVATION MEASURES

13. Cultural preservation measures required

a) Any person who engages in an earthmoving activity shall prevent adverse impact on potential cultural resources by identifying and preserving all such resources.

b) An earthmoving activity that may have an effect on cultural resources is also subject to regulatory control pursuant to the Historic Preservation Act 1991.

14. Prior determination

a) Any person who engages in an earthmoving activity, whether or not that activity requires a permit pursuant to regulation 22, shall first make every reasonable effort to consult with the Ministry of Internal Affairs' Historic Preservation Office to determine if a cultural resource may be unearthed, disturbed, or in any way affected by the earthmoving activity.

b) Efforts to identify potential cultural resources pursuant to subregulation a) may include, but are not limited to the following:

(i) inquiries to surrounding traditional landowners;

(ii) inquiries to the Secretary of Internal Affairs, appointed by Cabinet as the Republic of the Marshall Islands' Historic Preservation Officer, or to any other officer so designated;

(iii) inquiries to the Ministry of Internal Affairs Division of Cultural Heritage, or Alele Museum;

(iv) field investigations conducted by archaeologists or historians, or both, familiar with the cultural resources of the Republic; and

(v) inquiries to any recognized authority on historic, architectural, archeological or cultural preservation.

15. Declaration to Authority

When investigation conducted pursuant to regulation 14 reveals that a potential cultural resource may be affected earthmoving activity, the person who wishes to engage in that activity shall immediately declare the results of the investigation following manner:

(i)if the earthmoving activity requires a permit pursuant to regulation 22, declaration shall be made on the application form; or

(ii)if the earthmoving activity does not require a permit pursuant to regulation 22, declaration shall be in written instrument to the Authority before earthmoving begins.

16. Adverse impact

If the Authority, after consultation with the Ministry of Internal Affairs Historic Preservation Office, determines earthmoving activity may adversely affect a cultural resource, the Authority shall, by written instrument attached to the earthmoving permit, or, in the case where no permit is required, by written instrument alone, require the person engaging in the earthmoving activity to design, implement and maintain appropriate cultural preservation measures.

17. Duty to inform

In the event a cultural resource is discovered during the earthmoving process, the person engaged in the earthmoving activity shall inform the Authority by the quickest means available, and in writing, of the discovery.

18. Mitigation

a) When informed of a discovery pursuant to regulation 17, the Authority shall, in consultation with the person engaging in the earthmoving activity and the Historic Preservation Office, develop mitigation procedures to limit potential damage to the cultural resource.

b) Mitigation procedures may include a requirement to stop work temporarily at the earthmoving site so that the extent of the cultural resource and the potential damage to that resource may be assessed.

c) Mitigation procedures shall be:

(i)reasonable;

(ii)clearly described by the Authority by written instrument; and

(iii)delivered to the person engaged in the earthmoving activity in a timely manner.

PART V - RESTORATION

19. Stabilization

Upon completion of the project, all areas which were disturbed by the project shall be stabilized so that accelerated erosion, or accelerated sedimentation, or both, will be prevented.

20. Interim control measures

Any erosion and sedimentation control facility required or necessary to protect areas from erosion or sedimentation during the stabilization period shall be maintained until stabilization is completed.

21. Final measures

On completion of stabilization, all unnecessary or unusable control facilities shall be removed, the areas shall be stabilized and the soils shall be stabilized.

PART VI - PERMITS

22. Permit required

a) Any person who engages in an earthmoving activity within the Republic of the Marshall Islands shall first obtain a permit from the Authority for the proposed activity except that no permit is required for earthmoving activity that involves plow tilling for agricultural purposes.

b) At the discretion of the Authority, and upon the coming into law of coastal zone permitting regulations pursuant to the Coast Conservation Act 1988 ("CCA"), no earthmoving permit is required for a proposed earthmoving activity if that activity occurs within the coastal zone, as defined in the CCA, and requires a permit pursuant to the CCA regulations.

c) Those persons who qualify under the provisions of subregulations a) and b) to engage in earthmoving activity without a permit must otherwise comply with all of the provisions of these regulations.

23. Application for permit

a) Application for permits shall be on a form approved by the Authority and shall be submitted by the person undertaking the earthmoving activity. In the case of land development, the application shall be submitted by the land developer or contractor or agent.

b) Applications shall be made no later than one month before the proposed earthmoving activity is scheduled to begin.

c) Applications shall be accompanied by an erosion and sedimentation control plan and such other documents as the Authority may require.

d) Applications for projects with a total cost of less than \$50,000 shall be accompanied by a processing fee of \$200.00, which is not refundable. Applications for projects with a total cost of \$50,000 or more shall be accompanied by a nonrefundable processing fee of one percent of the project cost.

24. Public hearing regarding issuance of permit

At any time during the permitting process, the Authority may convene a public hearing or hearings for the purpose of determining the facts on which to base a decision. Adequate notice of the hearing or hearings, adequate opportunity to appear and be heard, and adequate opportunity to provide written comment, shall be given to all interested persons.

25. Environmental impact assessment regulations

a) Upon the coming into law of Environmental Impact Assessment Regulations pursuant to the National Environmental Protection Act 1984 and the Coast Conservation Act 1988, an earthmoving permit application shall be stayed until approval shall be issued until such time as:

(i) a Preliminary Proposal is submitted; and

(ii) a determination of significant effect is made; and,

(iii) if required, an environmental impact assessment is submitted by the project proponent and approved by the Authority.

b) Any terms and conditions placed on an earthmoving activity during an environmental impact assessment shall be addressed in the permitting documentation.

c) All written instruments regarding the earthmoving permit application and approval shall be forwarded to the Authority.

Authority's environmental impact assessment register, if such a register is established under Environmental Impact Assessment Regulations.

26. Special conditions

The Authority may, upon or after issuance of a permit, impose any conditions or special requirements on the earthmoving activity as it sees fit. All such conditions and requirements shall be listed on a written instrument issued by the Authority and attached to the permit.

27. Permit expiration and renewal

An earthmoving permit issued by the Authority shall expire one year from the date of issuance. If the earthmoving activity is ongoing at the time of permit expiration, a new permit application shall be submitted to the Authority one month before the permit expires. This renewal permit shall be treated as a new earthmoving activity application, and shall be subject to the processing fee, set forth at regulation 23(d) above.

PART VII - ENFORCEMENT

28. Violations

a) A person who violates any provision of these regulations or any permit, requirement or order issued thereunder shall be subject to enforcement action by the Authority.

b) The enforcement action may be any or all of the following:

(i) revocation of an earthmoving permit;

(ii) the making of a cease and desist order in relation to the subject matter of the violation;

(iii) the imposition of a civil penalty, fixed by the Authority, not exceeding \$10,000.00 for each day on which the violation continues;

(iv) the institution of civil proceedings to restrain the violation; and

(v) any other action authorized by the National Environmental Protection Act 1984 or any other law.

29. Public hearing on enforcement action

a) When the Authority revokes a permit or a cease and desist order is made under regulation 28 b) (i) or (ii), a public hearing shall be conducted by the Authority to determine the authenticity of the facts upon which the order was made.

b) Adequate notice of the hearing, and an adequate opportunity to appear and be heard at the hearing, shall be given to all interested persons.

30. Penalty for lack of permit

Any person required to have a permit and engaged in earthmoving activity without a permit shall be subject to a penalty of \$100.00 per day for each day the earthmoving activity is conducted without a permit.

Adopted by the Authority on January 6, 1994.

Jiba Kabua, Chairman
Environmental Protection Authority
Republic of the Marshall Islands

Approved by the Minister of Health and Environment on February 18, 1994.

Honorable Evelyn Konou
Minister of Health and Environment
Republic of the Marshall Islands

EFFECTIVE DATE: January 7, 1994