

**CHAPTER 62C-37  
HEAVY MINERAL RECLAMATION REQUIREMENTS**

**INDEX**

	<b>PAGE</b>
62C-37.001 Intent and Applicability. (REPEALED)	2
62C-37.002 Definitions.	2
62C-37.003 Applications Required.	3
62C-37.004 Document Format and Standards.	5
62C-37.005 Application Procedures.	6
62C-37.006 Application Review Procedures.	6
62C-37.007 Confidentiality and Availability of Records. (Repealed)	7
62C-37.008 Reclamation Standards.	7
62C-37.009 Inspections. (REPEALED)	11
62C-37.010 Release Procedures.	11
62C-37.011 Annual Reports.	11
62C-37.012 Violations, Injunctive Relief, and Penalties. (Repealed)	12
62C-37.013 Donations of Land. (REPEALED)	12

**62C-37.001 Intent and Applicability. (REPEALED)**

Specific Authority 370.021, 378.404, 378.601 FS. Law Implemented 378.404, 378.412 FS. History - New 2-22-87, Formerly 16C-37.001, Repealed 10-20-96.

**62C-37.002 Definitions.**

For the purpose of this chapter, the following words and terms shall have the definitions and meanings ascribed to them in this section:

(1) "Agency" means an official, committee, department, commission, officer, division, authority, bureau, council, board, section, or unit of government within the state, including a county, municipality, or other local or regional entity or special district.

(2) "Bureau" means the Bureau of Mine Reclamation, 2051 East Dirac Drive, Tallahassee, Florida 32310-3760.

(3) "Department" means the Department of Environmental Protection.

(4) "Existing mine" means any mine upon which an operation is being conducted, or has been conducted, on October 1, 1986.

(5) "Extraction" means the removal of heavy minerals from their location, so as to make them suitable for commercial, industrial, or construction use; but does not include excavation solely in aid of on-site farming or on-site construction, nor the process of searching, prospecting, exploring, or investigating for heavy minerals.

(6) "Heavy minerals" means those resources found in conjunction with sand deposits which have a specific gravity of not less than 2.8, and includes an admixture of such resources as zircon, staurolite, and titanium minerals as generally mined in Florida.

(7) "Local government" means any county or municipality.

(8) "Mine" means an area of land upon which mining operations have been conducted, are being conducted, or are planned to be conducted, as the term is commonly used in the trade.

(9) "New mine" means any mine where the operator begins the clearing of land for mining after July 1, 1987.

(10) "On-site" means within the contiguous limits of an area of land under one ownership or control and upon which farming or construction activities are taking place. Areas of land that are divided by public or private roads are considered contiguous if such areas are under one ownership or control.

(11) "Operation" means any activity, other than prospecting, necessary for site preparation, extraction, waste disposal, storage, or reclamation.

(12) "Operator" means any person engaged in an operation.

(13) "Reclamation" means the reasonable rehabilitation of land where heavy mineral extraction has occurred.

(14) "Temporary land use" means any use of lands under reclamation or restoration after contouring is complete, but before release, that is necessary for the mining operation or other reclamation or restoration activities within the mine.

Specific Authority 378.404, 378.601 FS. Law Implemented 378.404, 378.601 FS.

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**Effective 2-16-12**

History - New 2-22-87, Amended 1-22-01, Formerly 16C-37.002.

**62C-37.003 Applications Required.**

(1) Conceptual Plan. Prior to July 1, 1987, no operator may begin the process of heavy mineral extraction at a new mine without filing an application for a conceptual plan with the department at least six months prior to the beginning of mining operations. After July 1, 1987, no operator may begin the process of heavy mineral extraction at a new mine without receiving approval of a conceptual reclamation plan from the department. The conceptual plan application shall include the following information to allow documentation, review, and evaluation of proposed reclamation activities and to allow determination of compliance with the standards in this chapter.

(a) General information.

1. Operator's name, mailing address, business address, and phone number.
2. Name of parent company, corporation, etc., mailing address, business address, and phone number.
3. Mine name, mailing address, business address, and phone number.
4. Authorized agent's name, mailing address, business address, and phone number.
5. Date mining operations began or are to begin at this mine.
6. Mine location by county, township, range, section, and quarter-section.

(b) Premining information. The plan shall include descriptions of the following, as they existed prior to mining:

1. Geology, topography, drainage, vegetation, and land uses within the mine.
2. The presence and location of plant and animal species listed as threatened or endangered by the Florida Fish and Wildlife Conservation Commission or the U. S. Fish and Wildlife Service.

(c) Mining, waste disposal, and reclamation plan. The plan shall describe each of the following:

1. The general mining, waste disposal, and reclamation methods from the initial clearing of the land to the final revegetation.
2. The general sequence of mining, including an estimated time schedule.
3. Estimated quantities, by weight and volume, of earth materials to be considered in planning the reclamation activities.
4. Postreclamation topography, drainage, vegetation, and intended land uses.
5. Postreclamation structures.

(d) A description of the activities to be undertaken to comply with each of the standards in section 62C-37.008. The information provided shall be sufficient to determine whether or not each standard will be met.

(e) Maps. Separate maps shall be provided that show the:

1. Site plan and location.
2. Premining topography and drainage.

3. Premining vegetation.
4. Total area to be mined and disturbed. This map shall also show a best estimate of the area projected to be mined in each five-year period of the mine's life.
5. Postreclamation topography and drainage.
6. Postreclamation vegetation.
- (f) Cross sections shall be provided for each area to be reclaimed as a water body and wetland.
- (g) A description of any temporary land use requested, including the estimated dates the temporary land use will be in effect, what reclamation activities will be needed when the temporary land use ceases, and a time schedule for the reclamation activities.
- (h) Other supporting documents. The application shall include other supporting documents, as follows:
  1. A list of approved permits. This shall include copies of any dredge and fill permits approved by the U. S. Army Corps of Engineers or the Florida Department of Environmental Protection.
  2. A list of pending permit applications which are related to reclamation.
  3. A list of other permits which are related to reclamation and are known to be required.
  4. A copy of the Application for Development Approval and the Development Order, if applicable.
- (2) Modification to an Approved Conceptual Plan. An operator shall submit applications for modifications, as needed, for all changes to approved conceptual plans.
  - (a) All applications for modifications shall include the following information:
    1. Name of mine.
    2. Name of operator.
    3. Permit identification code for approved plan.
    4. What modification is requested.
  - (b) Applications for modifications that cover changes relating to areas, except areas to be deleted, within the currently approved mine boundary shall include the following additional information:
    1. Why the modification is requested.
    2. What alternatives were considered.
    3. Why the requested modification was chosen.
  - (c) Applications for modifications that cover areas to be deleted from within the currently approved mine boundary shall include the information required in subsection (1) above to the extent that the deletion will affect the currently approved area.
  - (d) Applications for modifications that cover areas to be added to the currently approved mine boundary shall include the information required in subsection (1) above, if the added area will not affect the currently approved area. However, if the added area will affect the currently approved area, then the modification application shall also

include the information required in paragraph (b) above.

(e) Significant changes to approved conceptual plans are changes that affect or result in a cumulative change of more than 640 acres or more than 20 percent, whichever is smaller, of the area covered by the conceptual plan, as originally approved or most recently modified by the department.

(f) Changes required be permit conditions or requirements imposed by other agencies, including federal agencies, shall not be considered significant when such changes are consistent with the reclamation standards in section 62C-37.008.

(g) Requests for temporary land uses on approved conceptual plans shall be filed as modifications.

(3) Time schedule changes that are the result of changes in the rate of mining shall not be considered modifications or amendments, but shall be reported in the annual report.

(4) An operator shall notify the department of any changes of land ownership or operators at a mine within at least 30 days after such changes.

(5) An operator shall notify the department no later than six months after the temporary cessation and 30 days after the permanent cessation of mining at a mine. Specific Authority 378.404, 378.601 FS. Law Implemented 378.404, 378.601 FS. History - New 2-22-87, Amended 1-22-02, Formerly 16C-37.003.

#### **62C-37.004 Document Format and Standards.**

(1) All applications shall be submitted in accordance with the document format and standards in this section.

(2) All copies of documents shall be of good quality and clearly legible.

(3) At least one copy of all documents that are to be signed shall bear an original signature.

(4) All documents shall be submitted in an 8 1/2- by 11-inch format.

(5) All pages of text, maps, drawings, cross sections, and other documents shall have a minimum margin of one inch on all sides.

(6) Original maps, drawings, and cross sections may be larger than 8 1/2 inches by 11 inches, but no larger than 30 inches by 40 inches. Copies of such oversized documents shall be available in both the original scale and the format required in subsections (4) and (5) above.

(7) All maps, drawings, and cross sections shall be of a scale suitable to show the required information. The original map scale for conceptual plans and modifications shall be one inch equals 1000 feet.

(8) All maps, drawings, and cross sections shall include at least the following information:

(a) Titles that explain their purpose.

(b) Legends that explain all symbols and patterns used.

(c) Scales, where appropriate. Scale bars shall be provided at a minimum.

(d) Location, where appropriate, including sections, townships, ranges, and

counties. Maps or plan views shall include at least three fixed points referenced to section corners. When possible these points shall be section corners, but they should not be in a straight line. Cross sections shall have clearly defined end points that shall be located accurately on an inset or other map.

(e) North arrow, where appropriate.

Specific Authority 378.404, 378.601 FS. Law Implemented 378.404, 378.601 FS.

History - New 2-22-87, Amended 1-22-02, Formerly 16C-37.004.

#### **62C-37.005 Application Procedures.**

(1) Preapplication meetings. In order to reduce the time required for processing applications, preapplication meetings are encouraged and should be arranged in accordance with the following:

(a) Prior to submitting an application to the bureau, the applicant should notify the bureau in writing that an application is due to be submitted. The notice should state the purpose of the application and whether or not a preapplication meeting is desired and include a map that outlines the application area.

(b) If a meeting is requested by the applicant, the bureau staff shall meet with the applicant at the earliest practical time or as otherwise agreed to by both parties.

(c) These meetings are for the purpose of exchanging ideas and information and shall be nonbinding on either party.

(2) Filing. Applications shall be filed with the bureau in accordance with the following deadlines:

(a) Conceptual plans. Conceptual plan applications shall be filed at least six months prior to beginning mining operations. Effective April 1, 1987, if the operator is required to prepare an Application for Development Approval (ADA) under chapter 380, F. S., the operator shall file the conceptual plan within seven days of the submittal of the ADA.

(b) Conceptual plan modifications. Modification applications shall be filed at least 90 days prior to beginning activities that require modification to an approved conceptual plan.

Specific Authority 378.404, 378.601 FS. Law Implemented 378.404, 378.601 FS.

History - New 2-22-87, Amended 1-22-02, Formerly 16C-37.005.

#### **62C-37.006 Application Review Procedures.**

All applications shall be reviewed in accordance with the following procedures:

(1) Within 30 days after receipt of an operator's application, the department shall review the application and shall request the submittal of all additional information the agency is permitted by law to require.

(2) The operator shall provide the requested additional information within 45 days of receipt of the request or request an extension to the 45-day period. The extension request shall include the date by which the information can be provided and the reason for the extension. The department shall approve reasonable requests that

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**Effective 2-16-12**

are based on a need to complete data collection. If the operator does not provide the requested information within the 45-day period or request an extension, the department may proceed to final action.

(3) If the operator believes any request for additional information is not authorized by law or department rule, the operator may request a hearing pursuant to section 120.57, Florida Statutes.

(4) Within 30 days after receipt of the requested additional information, the department shall review it and may request only such information needed to clarify the received additional information.

(5) If the operator believes the request of the department for such additional information, requested pursuant to subsection (4) above, is not authorized by law or department rule, the department, at the operator's request, shall proceed to process the application.

(6) Applications shall be approved, approved with conditions, or denied by the department within 90 days after receipt of the original application, the last item of timely requested additional information, or the operator's written request to begin processing the application.

Specific Authority 378.404, 378.601 FS. Law Implemented 378.405, 378.601 FS. History - New 2-22-87, Amended 1-22-02, Formerly 16C-37.006.

#### **62C-37.007 Confidentiality and Availability of Records. (Repealed)**

Rulemaking Authority 378.404, 378.406, 378.601 FS. Law Implemented 378.404, 378.406, 378.601 FS. History - New 2-22-87, Formerly 16C-37.007, Repealed 2-16-12.

#### **62C-37.008 Reclamation Standards.**

The following standards shall apply to areas mined or disturbed by mining operations unless otherwise specified:

(1) Safety.

(a) Site cleanup. All lands reclaimed shall be completed in a neat, clean manner by removing or adequately burying all visible debris, litter, junk, worn-out or unusable equipment or materials, as well as all footings, poles, pilings, and cables. If any large rocks or boulders exist as a result of mining, these should be left either at the surface where they are distinctly visible or placed in mined-out areas and covered to a minimum depth of four (4) feet.

(b) Structures. All temporary buildings, pipelines, and other man-made structures shall be removed with the exception of those that are of sound construction with potential use compatible with the reclamation goals.

(2) Backfilling and Contouring.

(a) The proposed land use after reclamation and the types of landforms shall be those best suited to enhance the recovery of the land into mature sites with high potential for the intended land use.

(b) Slopes of any reclaimed land area shall be no steeper than four (4) feet

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**Effective 2-16-12**

horizontal to one (1) foot vertical to enhance slope stabilization and provide for the safety of the general public. For long continuous slopes, mulching, contouring, or other suitable techniques shall be used to enhance stabilization. Should washes or rills develop after revegetation and before final release of the area, the operator shall repair the eroded areas and stabilize the slopes to eliminate any further similar erosion.

(3) Soil Zone.

(a) The use of good quality topsoils is encouraged, especially in areas of reclamation by natural succession.

(b) Where topsoil is not used, the operator shall use a suitable growing medium for the type of vegetative communities planned.

(4) Wetlands which are within the conceptual plan area which are disturbed by mining operations shall be restored to at least premining surface areas.

(5) Wetlands and Water Bodies. The design of artificially created wetlands and water bodies shall be consistent with health and safety practices, maximize beneficial contributions within local drainage patterns, provide aquatic and wetland wildlife habitat values, and maintain downstream water quality by preventing erosion and providing nutrient uptake. Water bodies should incorporate a variety of emergent habitats, a balance of deep and shallow water, fluctuating water levels, high ratios of shoreline length to surface area and a variety of shoreline slopes.

(a) At least 25% of the highwater surface area of each water body shall consist of an annual zone of water fluctuation to encourage emergent and transition zone vegetation. This area will also qualify as wetlands under the requirements of (4) above if requirements in 62C-37.008(9) are met. In the event that sufficient shoreline configurations, slopes, or water level fluctuations cannot be designed to accommodate this requirement, this deficiency shall be met by constructing additional wetlands adjacent to and hydrologically connected to the water body.

(b) At least 20% of the low water surface area shall consist of a zone between the annual low water line and six feet below the annual low water line to provide fish bedding areas and submerged vegetation zones.

(c) The operator shall give a high priority to a lake perimeter green belt of vegetation consisting of tree and shrub species indigenous to the area in addition to ground cover.

(6) Water Quality.

(a) All waters of the state on or leaving the property under control of the taxpayer shall meet applicable water quality standards of the Florida Department of Environmental Protection.

(b) Water within all wetlands and water bodies shall be of sufficient quality to allow recreation or support fish and other wildlife.

(7) Flooding and Drainage.

(a) The operator shall take all reasonable steps necessary to eliminate the risk that there will be flooding on lands not controlled by the operator caused by silting or damming of stream channels, channelization, slumping or debris slides, uncontrolled

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erosion, or intentional spoiling or diking or other similar actions within the control of the operator.

(b) The operator shall restore the original drainage pattern of the area to the greatest extent possible. Watershed boundaries shall not be crossed in restoring drainage patterns; watersheds shall be restored within their original boundaries.

(8) Waste Disposal.

(a) Waste disposal areas shall be reclaimed as expeditiously as possible. Experimental methods which speed reclamation which are consistent with these rules are encouraged.

(b) To the greatest extent practical, all waste shall be disposed of in a manner that reduces the volume needed for disposal.

(c) Above-ground retention areas shall be reclaimed in a manner so that long-term stabilization of dams is assured.

(9) Revegetation. The operator shall develop a revegetation plan to achieve permanent revegetation, minimize soil erosion, conceal the effects of surface mining, and recognize the requirements for appropriate habitat for fish and wildlife.

(a) The operator shall develop a plan for the proposed revegetation, including the species of grasses, shrubs, trees, aquatic and wetlands vegetation to be planted, the spacing of vegetation, and, where necessary, the program for treating the soils to prepare them for revegetation.

(b) All upland areas must have established ground cover for one year after planting over 80% of the reclaimed upland area, excluding roads, groves, or row crops. Bare areas shall not exceed one-quarter (1/4) acre.

(c) Upland forested areas shall be established to resemble premining conditions where practical and where consistent with proposed land uses. At a minimum, 10% of the upland area will be revegetated as upland forested areas with a variety of indigenous hardwoods and conifers. Upland forested areas shall be protected from grazing, mowing, or other adverse land uses to allow establishment. An area will be considered to be reforested if a stand density of 200 trees/acre is achieved at the end of one year after planting.

(d) All wetland areas shall be restored and revegetated in accordance with the best available technology.

1. Herbaceous wetlands shall achieve a ground cover of at least 50% at the end of one year after planting and shall be protected from grazing, mowing, or other adverse land uses for three years after planting to allow establishment.

2. Wooded wetlands shall achieve a stand density of 200 trees/acre at the end of one year after planting and will be protected from grazing, mowing, or other adverse land uses for five years or until such time as the trees are ten feet tall.

(e) All species used in revegetation shall be indigenous species except for agricultural crops, grasses, and temporary ground cover vegetation.

(10) Wildlife. The operator shall identify what measures have been incorporated into the conceptual plan to offset fish and wildlife values lost as a result of

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mining activities and shall identify special programs to restore, enhance, or reclaim particular habitats, especially for endangered and threatened species, as identified by the Florida Fish and Wildlife Conservation Commission or the U. S. Fish and Wildlife Service.

(11) Time Schedule.

(a) Each operator shall develop a time schedule for completion of the reclamation process in the area covered by the application. The time schedule shall include an estimate of:

1. When removal of heavy minerals in the area will be completed, including the estimated acreage to be mined in each calendar year that mining will occur.
2. When any other mining operations phase in the area will be completed and an explanation of such operations.
3. When waste disposal will be started and completed.
4. When the contouring will be started and when completed.
5. When revegetation will be started and completed.

(b) Completion dates.

1. Where mined-out areas will be used for waste disposal, waste disposal shall be completed as soon as practical after mining has occurred. The completion date for waste disposal shall consider the availability and volume of materials needed.
2. Contouring for all acres mined in a given calendar year shall be completed no later than 18 months after the end of that calendar year or 18 months after an area is capable of being contoured when additional mining operations, such as waste disposal, occur.
3. Revegetation for any given area shall be completed no later than six months after the required completion of contouring in that area.
4. Reclamation and restoration shall be completed within three years of the actual completion of mining operations, inclusive of a one-year period after planting the required vegetation to allow for establishment.
5. The completion date for reclamation and restoration activities shall be extended by the period of any delays attributable to causes beyond the reasonable control of the operator.
6. Initiation dates shall be the first day of the appropriate calendar month; completion dates shall be the last day of the appropriate calendar month.

(12) Exceptions and Innovations. Exceptions to the standards contained in this section may be granted by the department for experimental or innovative techniques.

(13) Remaining Natural Resources. The operator shall take care to protect the nature resources within the mine which are not affected by mining of the heavy minerals. Highest priority shall be given to the following concerns:

- (a) Protection of endangered and threatened species and their habitat.
- (b) Protection of surface drainage patterns and water quality, including the natural resources and integrity of natural streams and their flood plains.
- (c) Protection of uplands from erosion, loss of topsoil, and vegetation loss.

Specific Authority 378.404, 378.601 FS. Law Implemented 378.404, 378.601 FS.  
History - New 2-22-87, Amended 1-22-02, Formerly 16C-37.008.

**62C-37.009 Inspections. (REPEALED)**

Specific Authority 370.021, 378.404, 378.601 FS. Law Implemented 378.404, 378.407, 378.601 FS. History - New 2-22-87, Formerly 16C-37.009, Repealed 10-20-96.

**62C-37.010 Release Procedures.**

(1) Upon completion of reclamation requirements in an area, the operator shall notify the department.

(2) Within 60 days after receipt of the notification, the department shall notify the operator in writing whether or not an inspection will be made within one year after receipt of the operator's notification. The department's notification shall include the date the inspection will occur, if an inspection is scheduled.

(3) Within 30 days after the inspection, the department shall notify the operator in writing that the area is released or what work must be done before release can be granted.

(4) If the department notifies the operator that the area will not be inspected, the area shall be released from reclamation requirements at the end of the second year after receipt of the operator's notification.

(5) If an operator wishes to resume mining operations within a released area, the area to be disturbed shall be considered to be an undisturbed area for the purposes of this chapter and application shall be made in accordance with the full provisions of this chapter.

Specific Authority 378.404, 378.601 FS. Law Implemented 378.404, 378.407, 378.601 FS. History - New 2-22-87, Amended 1-22-02, Formerly 16C-37.010.

**62C-37.011 Annual Reports.**

(1) On or before March 1 of each year, each operator shall submit to the bureau a detailed report for the previous calendar year for each mine under his control. The report shall be submitted in accordance with the document format and standards in section 62C-37.004 and shall include:

(a) Name and address of the operator, name of the mine, and year covered by the report.

(b) The number of acres from which heavy minerals were extracted during the year.

(c) The number of acres disturbed, but not mined, during the year and the nature of the disturbances.

(d) The number of acres on which mining operations, including waste disposal, were completed.

(e) A description of the reclamation activities that have taken place during the year.

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**Effective 2-16-12**

(f) Maps that illustrate paragraphs (b) through (e) above. To the extent possible, maps submitted with each successive report shall include the information shown on maps submitted with previous reports.

(2) The bureau shall examine each annual report and notify the operator of any apparent errors or omissions.

(3) The operator shall respond to the bureau's request for corrections of apparent errors and omitted information within 60 days of receipt.

Specific Authority 378.404, 378.601 FS. Law Implemented 378.404, 378.601 FS. History - New 2-22-87, Formerly 16C-37.011.

**62C-37.012 Violations, Injunctive Relief, and Penalties. (Repealed)**

Rulemaking Authority 378.404, 378.601 FS. Law Implemented 120.69, 378.404, 378.408, 378.409, 378.601 FS. History - New 2-22-87, Formerly 16C-37.012, Repealed 2-16-12.

**62C-37.013 Donations of Land. (REPEALED)**

Specific Authority 370.021, 378.404 FS. Law Implemented 211.32, 253.02 FS. History - New 2-22-87, Formerly 16C-37.013, Repealed 10-20-96.