all other necessary Federal, State, and local permits.

## § 971.429 Special terms, conditions and restrictions.

Although the general criteria and standards to be used in establishing TCRs for a permit are set forth in this part, as referenced in §§ 971.418 through 971.428, the Administrator may impose special TCRs for the conservation of natural resources, protection of the environment, or the safety of life and property at sea when required by differing physical and environmental conditions.

### § 971.430 Other Federal requirements.

Pursuant to §971.211, another Federal agency, or a State acting under Federal authority, upon review of a commercial recovery permit application submitted under this part, may propose that certain TCRs be added to the permit, to assure compliance with any law or regulation within that agency's area of responsibility. The Administrator will include appropriate TCRs in a permit.

### Subpart E—Resource Development

#### § 971.500 General.

Several provisions in the Act relate to appropriate mining techniques or mining efficiency. These raise what could be characterized as resource development issues. In particular, section 103(a)(2)(C) requires a resource assessment to be provided with the recovery plan. Section 103(a)(2)(D) of the Act provides that the applicant will select the size and location of the area of a recovery plan, which will be approved unless the Administrator finds that the area is not a "logical mining unit" or the commercial recovery activities in the proposed site would result in a significant adverse environmental effect which cannot be avoided by the imposition of reasonable restrictions. Also, pursuant to section 108 of the Act, the applicant's recovery plan and the TCRs of each permit must be designed to ensure diligent development. In addition, for the purpose of conservation of natural resources, section 110 of the Act provides that each permit is to contain, as needed, terms, conditions, and restrictions which have due regard for the prevention of waste and the future opportunity for the commercial recovery of the unrecovered balance of the resources.

# § 971.501 Resource assessment, recovery plan, and logical mining unit.

- (a) The applicant must submit with the application a resource assessment to provide a basis for assessing the area applied for. This assessment must include a discussion of mineable and unmineable areas, taking into account nodule grade, nodule concentration, and other factors such as seafloor topography. These areas may be delineated graphically. The resources in the area must be described in relation to the applicant's production requirements, operating period, and recovery efficiency in order to justify the area applied for.
- (b) The applicant shall select the size and location of the area of the recovery plan, which area shall be approved unless the Administrator finds that, among other considerations (see §971.301(a)), the area is not a logical mining unit. In the case of a commercial recovery permit, a logical mining unit is an area of the deep seabed:
- (1) In which hard mineral resources can be recovered in sufficient quantities to satisfy the permittee's estimated production requirements over the initial 20-year term of the permit in an efficient, economical, and orderly manner with due regard for conservation and protection of the environment, taking into consideration the resource data, other relevant physical and environmental characteristics, and the state of the technology of the applicant set out in the recovery plan;
- (2) Which is not larger than necessary to satisfy the permittee's estimated production requirements over the initial 20-year term of the permit; and
- (3) In relation to which the permittee's estimated production requirements are not found by the Administrator to be unreasonable.
- (c) Approval by the Administrator of a proposed logical mining unit will be based on a case-by-case review of each application. The area need not consist

### § 971.502

of contiguous segments, as long as each segment would be efficiently mineable and the total proposed area constitutes a logical mining unit.

(d) In describing the area, the applicant must present the geodetic coordinates of the points defining the boundaries referred to the World Geodetic System (WGS) Datum. A boundary between points must be a geodesic. If grid coordinates are desired, the Universal Transverse Mercator Grid System must be used.

#### § 971.502 Conservation of resources.

- (a) If the Administrator establishes terms, conditions and restrictions relating to conservation of resources, he will employ a balancing process in the consideration of the state of the technology being developed, the processing system utilized and the value and potential use of any waste, the environmental effects of the recovery activities, economic and resource data, and the national need for hard mineral resources
- (b) The application must set forth how the applicant's proposed method of collecting nodules will conserve resources by providing for the future opportunity for commercial recovery of the unrecovered balance of the resources in the proposed permit area. Although preliminary and subject to change, the discussion must include a plan for the chronology of areas to be mined. This is needed in order for the Administrator to determine if selective mining, expected to be carried out in the early years to improve cash flow, is part of a long range recovery plan.
- (c) If the applicant proposes a refining process that does not include the use of manganese in a productive manner, it may not render the manganese unavailable to future users by dispersing the tailings over a vast area unless such a scheme is necessary for the financial practicability of the commercial recovery activities of the applicant. A permittee must advise the Administrator in the annual report of the location, composition and quantity of manganese in tailings which remain after processing. Should national needs for manganese develop during the duration of a permit, e.g., in case of national emergency, the Administrator

may cancel the exception granted involving dispersion of tailings. Applicants seeking an exception would be required to demonstrate how and in what time frame their commercial recovery processing activities could be modified to respond to new national needs.

# § 971.503 Diligent commercial recovery.

- (a) Each permittee must pursue diligently the activities described in its approved commercial recovery plan. This requirement applies to the full scope of the plan, including environmental safeguards and monitoring systems. Permit TCRs will require periodic reasonable expenditures for commercial recovery by the permittee, taking into account the size of the area of the deep seabed to which the recovery plan applies and the amount of funds estimated by the Administrator to be required to initiate commercial recovery of hard mineral resources within the time limit established by the Administrator, However, required expenditures will not be established at a level which would discourage commercial recovery or operational efficiency.
- (b) To meet the diligence requirement, the applicant must propose to the Administrator an estimated schedule of activities and expenditures pursuant to §971.203(b)(2). The schedule must show, and the Administrator must be able to make a reasonable determination, that the applicant can reasonably develop the resources in the permit area within the term of the permit. There must be a reasonable relationship between the size of the recovery area and the financial and technological resources reflected in the application. The permittee must initiate the recovery of nodules in commerical quantities within ten years of the issuance of the permit unless this deadline is extended by the Administrator for good cause.
- (c) Once commercial recovery is achieved, the permittee must, within reasonable limits and taking into consideration all relevant factors, maintain commercial recovery throughout the period of the permit. However, the Administrator will, for good cause shown, authorize temporary suspension