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Displaying title 18, up to date as of 11/16/2022. Title 18 was last amended 7/01/2022.

## **Title 18 - Conservation of Power and Water Resources**

### **Chapter I - Federal Energy Regulatory Commission, Department of Energy**

#### **Subchapter W - Revised General Rules**

#### **Part 380 - Regulations Implementing the National Environmental Policy Act**

### **§ 380.12 Environmental reports for Natural Gas Act applications.**

(a) **Introduction.**

- (1) The applicant must submit an environmental report with any application that proposes the construction, operation, or abandonment of any facility identified in § 380.3(c)(2)(i). The environmental report shall consist of the thirteen resource reports and related material described in this section.
- (2) The detail of each resource report must be commensurate with the complexity of the proposal and its potential for environmental impact. Each topic in each resource report shall be addressed or its omission justified, unless the resource report description indicates that the data is not required for that type of proposal. If material required for one resource report is provided in another resource report or in another exhibit, it may be incorporated by reference. If any resource report topic is required for a particular project but is not provided at the time the application is filed, the environmental report shall explain why it is missing and when the applicant anticipates it will be filed.
- (3) The appendix to this part contains a checklist of the minimum filing requirements for an environmental report. Failure to provide at least the applicable checklist items will result in rejection of the application unless the Director of the Office of Energy Projects determines that the applicant has provided an acceptable reason for the item's absence and an acceptable schedule for filing it. Failure to file within the accepted schedule will result in rejection of the application.

(b) **General requirements.** As appropriate, each resource report shall:

- (1) Address conditions or resources that might be directly or indirectly affected by the project;
- (2) Identify significant environmental effects expected to occur as a result of the project;
- (3) Identify the effects of construction, operation (including maintenance and malfunctions), and termination of the project, as well as cumulative effects resulting from existing or reasonably foreseeable projects;
- (4) Identify measures proposed to enhance the environment or to avoid, mitigate, or compensate for adverse effects of the project;
- (5) Provide a list of publications, reports, and other literature or communications, including agency contacts, that were cited or relied upon to prepare each report. This list should include the name and title of the person contacted, their affiliations, and telephone number;
- (6) Whenever this section refers to "mileposts" the applicant may substitute "survey centerline stationing" if so desired. However, whatever method is chosen should be used consistently throughout the resource reports.

(c) **Resource Report 1 - General project description.** This report is required for all applications. It will describe facilities associated with the project, special construction and operation procedures, construction timetables, future plans for related construction, compliance with regulations and codes, and permits that must be obtained. Resource Report 1 must:

- (1) Describe and provide location maps of all jurisdictional facilities, including all aboveground facilities associated with the project (such as: meter stations, pig launchers/receivers, valves), to be constructed, modified, abandoned, replaced, or removed, including related construction and operational support activities and areas such as maintenance bases, staging areas, communications towers, power lines, and new access roads (roads to be built or modified). As relevant, the report must describe the length and diameter of the pipeline, the types of aboveground facilities that would be installed, and associated land requirements. It must also identify other companies that must construct jurisdictional facilities related to the project, where the facilities would be located, and where they are in the Commission's approval process.
- (2) Identify and describe all nonjurisdictional facilities, including auxiliary facilities, that will be built in association with the project, including facilities to be built by other companies.

## (i) Provide the following information:

- (A) A brief description of each facility, including as appropriate: Ownership, land requirements, gas consumption, megawatt size, construction status, and an update of the latest status of Federal, state, and local permits/approvals;
- (B) The length and diameter of any interconnecting pipeline;
- (C) Current 1:24,000/1:25,000 scale topographic maps showing the location of the facilities;
- (D) Correspondence with the appropriate State Historic Preservation Officer (SHPO) or duly authorized Tribal Historic Preservation Officer (THPO) for tribal lands regarding whether properties eligible for listing on the National Register of Historic Places (NRHP) would be affected;
- (E) Correspondence with the U.S. Fish and Wildlife Service (and National Marine Fisheries Service, if appropriate) regarding potential impacts of the proposed facility on federally listed threatened and endangered species; and
- (F) For facilities within a designated coastal zone management area, a consistency determination or evidence that the owner has requested a consistency determination from the state's coastal zone management program.

## (ii) Address each of the following factors and indicate which ones, if any, appear to indicate the need for the Commission to do an environmental review of project-related nonjurisdictional facilities.

- (A) Whether or not the regulated activity comprises "merely a link" in a corridor type project (e.g., a transportation or utility transmission project).
- (B) Whether there are aspects of the nonjurisdictional facility in the immediate vicinity of the regulated activity which uniquely determine the location and configuration of the regulated activity.
- (C) The extent to which the entire project will be within the Commission's jurisdiction.
- (D) The extent of cumulative Federal control and responsibility.

## (3) Provide the following maps and photos:

- (i) Current, original United States Geological Survey (USGS) 7.5-minute series topographic maps or maps of equivalent detail, covering at least a 0.5-mile-wide corridor centered on the pipeline, with integer mileposts identified, showing the location of rights-of-way, new access roads, other linear construction areas, compressor stations, and pipe storage areas. Show nonlinear construction areas on maps at a scale of 1:3,600 or larger keyed graphically and by milepost to the right-of-way maps.
- (ii) Original aerial images or photographs or photo-based alignment sheets based on these sources, not more than 1 year old (unless older ones accurately depict current land use and development) and with a scale of 1:6,000 or larger, showing the proposed pipeline route and location of major aboveground facilities, covering at least a 0.5 mile-wide corridor, and including mileposts. Older images/photographs/alignment sheets should be modified to show any residences not depicted in the original. Alternative formats (e.g., blue-line prints of acceptable resolution) need prior approval by the environmental staff of the Office of Energy Projects.
- (iii) In addition to the copy required under § 157.6(a)(2) of this chapter, applicant should send two additional copies of topographic maps and aerial images/photographs directly to the environmental staff of the Office of Energy Projects.

## (4) When new or additional compression is proposed, include large scale (1:3,600 or greater) plot plans of each compressor station. The plot plan should reference a readily identifiable point(s) on the USGS maps required in paragraph (c)(3) of this section. The maps and plot plans must identify the location of the nearest noise-sensitive areas (schools, hospitals, or residences) within 1 mile of the compressor station, existing and proposed compressor and auxiliary buildings, access roads, and the limits of areas that would be permanently disturbed.

## (5)

- (i) Identify facilities to be abandoned, and state how they would be abandoned, how the site would be restored, who would own the site or right-of-way after abandonment, and who would be responsible for any facilities abandoned in place.

- (ii) When the right-of-way or the easement would be abandoned, identify whether landowners were given the opportunity to request that the facilities on their property, including foundations and below ground components, be removed. Identify any landowners whose preferences the company does not intend to honor, and the reasons therefore.
- (6) Describe and identify by milepost, proposed construction and restoration methods to be used in areas of rugged topography, residential areas, active croplands, sites where the pipeline would be located parallel to and under roads, and sites where explosives are likely to be used.
- (7) Unless provided in response to Resource Report 5, describe estimated workforce requirements, including the number of pipeline construction spreads, average workforce requirements for each construction spread and meter or compressor station, estimated duration of construction from initial clearing to final restoration, and number of personnel to be hired to operate the proposed project.
- (8) Describe reasonably foreseeable plans for future expansion of facilities, including additional land requirements and the compatibility of those plans with the current proposal.
- (9) Describe all authorizations required to complete the proposed action and the status of applications for such authorizations. Identify environmental mitigation requirements specified in any permit or proposed in any permit application to the extent not specified elsewhere in this section.
- (10) Provide the names and mailing addresses of all affected landowners specified in § 157.6(d) and certify that all affected landowners will be notified as required in § 157.6(d).
- (d) **Resource Report 2 - Water use and quality.** This report is required for all applications, except those which involve only facilities within the areas of an existing compressor, meter, or regulator station that were disturbed by construction of the existing facilities, no wetlands or waterbodies are on the site and there would not be a significant increase in water use. The report must describe water quality and provide data sufficient to determine the expected impact of the project and the effectiveness of mitigative, enhancement, or protective measures. Resource Report 2 must:
  - (1) Identify and describe by milepost perennial waterbodies and municipal water supply or watershed areas, specially designated surface water protection areas and sensitive waterbodies, and wetlands that would be crossed. For each waterbody crossing, identify the approximate width, state water quality classifications, any known potential pollutants present in the water or sediments, and any potable water intake sources within 3 miles downstream.
  - (2) Compare proposed mitigation measures with the staff's current "*Wetland and Waterbody Construction and Mitigation Procedures*," which are available from the Commission Internet home page or the Commission staff, describe what proposed alternative mitigation would provide equivalent or greater protection to the environment, and provide a description of site-specific construction techniques that would be used at each major waterbody crossing.
  - (3) Describe typical staging area requirements at waterbody and wetland crossings. Also, identify and describe waterbodies and wetlands where staging areas are likely to be more extensive.
  - (4) Include National Wetland Inventory (NWI) maps. If NWI maps are not available, provide the appropriate state wetland maps. Identify for each crossing, the milepost, the wetland classification specified by the U.S. Fish and Wildlife Service, and the length of the crossing. Include two copies of the NWI maps (or the substitutes, if NWI maps are not available) clearly showing the proposed route and mileposts directed to the environmental staff. Describe by milepost, wetland crossings as determined by field delineations using the current Federal methodology.
  - (5) Identify aquifers within excavation depth in the project area, including the depth of the aquifer, current and projected use, water quality and average yield, and known or suspected contamination problems.
  - (6) Describe specific locations, the quantity required, and the method and rate of withdrawal and discharge of hydrostatic test water. Describe suspended or dissolved material likely to be present in the water as a result of contact with the pipeline, particularly if an existing pipeline is being retested. Describe chemical or physical treatment of the pipeline or hydrostatic test water. Discuss waste products generated and disposal methods.
  - (7) If underground storage of natural gas is proposed:
    - (i) Identify how water produced from the storage field will be disposed of, and
    - (ii) For salt caverns, identify the source locations, the quantity required, and the method and rate of withdrawal of water for creating salt cavern(s), as well as the means of disposal of brine resulting from cavern leaching.

- (8) Discuss proposed mitigation measures to reduce the potential for adverse impacts to surface water, wetlands, or groundwater quality to the extent they are not described in response to paragraph (d)(2) of this section. Discuss the potential for blasting to affect water wells, springs, and wetlands, and measures to be taken to detect and remedy such effects.
- (9) Identify the location of known public and private groundwater supply wells or springs within 150 feet of proposed construction areas. Identify locations of EPA or state-designated sole-source aquifers and wellhead protection areas crossed by the proposed pipeline facilities.

(e) **Resource Report 3 - Fish, wildlife, and vegetation.** This report is required for all applications, except those involving only facilities within the improved area of an existing compressor, meter, or regulator station. It must describe aquatic life, wildlife, and vegetation in the vicinity of the proposed project; expected impacts on these resources including potential effects on biodiversity; and proposed mitigation, enhancement or protection measures. Resource Report 3 must:

- (1) Describe commercial and recreational warmwater, coldwater, and saltwater fisheries in the affected area and associated significant habitats such as spawning or rearing areas and estuaries.
- (2) Describe terrestrial habitats, including wetlands, typical wildlife habitats, and rare, unique, or otherwise significant habitats that might be affected by the proposed action. Describe typical species that have commercial, recreational, or aesthetic value.
- (3) Describe and provide the acreage of vegetation cover types that would be affected, including unique ecosystems or communities such as remnant prairie or old-growth forest, or significant individual plants, such as old-growth specimen trees.
- (4) Describe the impact of construction and operation on aquatic and terrestrial species and their habitats, including the possibility of a major alteration to ecosystems or biodiversity, and any potential impact on state-listed endangered or threatened species. Describe the impact of maintenance, clearing and treatment of the project area on fish, wildlife, and vegetation. Surveys may be required to determine specific areas of significant habitats or communities of species of special concern to state or local agencies.
- (5) Identify all federally listed or proposed endangered or threatened species and critical habitat that potentially occur in the vicinity of the project. Discuss the results of the consultation requirements listed in § 380.13(b) at least through § 380.13(b)(5)(i) and include any written correspondence that resulted from the consultation. The initial application must include the results of any required surveys unless seasonal considerations make this impractical. If species surveys are impractical, there must be field surveys to determine the presence of suitable habitat unless the entire project area is suitable habitat.
- (6) Identify all federally listed essential fish habitat (EFH) that potentially occurs in the vicinity of the project. Provide information on all EFH, as identified by the pertinent Federal fishery management plans, that may be adversely affected by the project and the results of abbreviated consultations with NMFS, and any resulting EFH assessments.
- (7) Describe site-specific mitigation measures to minimize impacts on fisheries, wildlife, and vegetation.
- (8) Include copies of correspondence not provided pursuant to paragraph (e)(5) of this section, containing recommendations from appropriate Federal and state fish and wildlife agencies to avoid or limit impact on wildlife, fisheries, and vegetation, and the applicant's response to the recommendations.

(f) **Resource Report 4 - Cultural resources.** This report is required for all applications. In preparing this report, the applicant must follow the principles in § 380.14 of this part. Guidance on the content and the format for the documentation listed below, as well as professional qualifications of preparers, is detailed in "*Office of Energy Projects' (OEP) Guidelines for Reporting on Cultural Resources Investigations*," which is available from the Commission Internet home page or from the Commission staff.

- (1) Resource Report 4 must contain:
  - (i) Documentation of the applicant's initial cultural resources consultation, including consultations with Native Americans and other interested persons (if appropriate);
  - (ii) Overview and Survey Reports, as appropriate;
  - (iii) Evaluation Report, as appropriate;
  - (iv) Treatment Plan, as appropriate; and

- (v) Written comments from State Historic Preservation Officer(s) (SHPO), Tribal Historic Preservation Officers (THPO), as appropriate, and applicable land-managing agencies on the reports in paragraphs (f)(1)(i)-(iv) of this section.
- (2) **Initial filing requirements.** The initial application must include the documentation of initial cultural resource consultation, the Overview and Survey Reports, if required, and written comments from SHPOs, THPOs and land-managing agencies, if available. The initial cultural resources consultations should establish the need for surveys. If surveys are deemed necessary by the consultation with the SHPO/THPO, the survey report must be filed with the application.
  - (i) If the comments of the SHPOs, THPOs, or land-management agencies are not available at the time the application is filed, they may be filed separately, but they must be filed before a final certificate is issued.
  - (ii) If landowners deny access to private property and certain areas are not surveyed, the unsurveyed area must be identified by mileposts, and supplemental surveys or evaluations shall be conducted after access is granted. In such circumstances, reports, and treatment plans, if necessary, for those inaccessible lands may be filed after a certificate is issued.
- (3) The Evaluation Report and Treatment Plan, if required, for the entire project must be filed before a final certificate is issued.
  - (i) The Evaluation Report may be combined in a single synthetic report with the Overview and Survey Reports if the SHPOs, THPOs, and land-management agencies allow and if it is available at the time the application is filed.
  - (ii) In preparing the Treatment Plan, the applicant must consult with the Commission staff, the SHPO, and any applicable THPO and land-management agencies.
  - (iii) Authorization to implement the Treatment Plan will occur only after the final certificate is issued.
- (4) Applicant must request privileged treatment for all material filed with the Commission containing location, character, and ownership information about cultural resources in accordance with § 388.112 of this chapter. The cover and relevant pages or portions of the report should be clearly labeled in bold lettering: "CONTAINS PRIVILEGED INFORMATION - DO NOT RELEASE."
- (5) Except as specified in a final Commission order, or by the Director of the Office of Energy Projects, construction may not begin until all cultural resource reports and plans have been approved.
- (g) **Resource Report 5 - Socioeconomics.** This report is required only for applications involving significant aboveground facilities, including, among others, conditioning or liquefied natural gas (LNG) plants. It must identify and quantify the impacts of constructing and operating the proposed project on factors affecting towns and counties in the vicinity of the project. Resource Report 5 must:
  - (1) Describe the socioeconomic impact area.
  - (2) Evaluate the impact of any substantial immigration of people on governmental facilities and services and plans to reduce the impact on the local infrastructure.
  - (3) Describe on-site manpower requirements and payroll during construction and operation, including the number of construction personnel who currently reside within the impact area, would commute daily to the site from outside the impact area, or would relocate temporarily within the impact area.
  - (4) Determine whether existing housing within the impact area is sufficient to meet the needs of the additional population.
  - (5) Describe the number and types of residences and businesses that would be displaced by the project, procedures to be used to acquire these properties, and types and amounts of relocation assistance payments.
  - (6) Conduct a fiscal impact analysis evaluating incremental local government expenditures in relation to incremental local government revenues that would result from construction of the project. Incremental expenditures include, but are not limited to, school operating costs, road maintenance and repair, public safety, and public utility costs.
- (h) **Resource Report 6 - Geological resources.** This report is required for applications involving LNG facilities and all other applications, except those involving only facilities within the boundaries of existing aboveground facilities, such as a compressor, meter, or regulator station. It must describe geological resources and hazards in the project area that might be directly or indirectly affected by the proposed action or that could place the proposed facilities at risk, the potential effects of those hazards on the facility, and methods proposed to reduce the effects or risks. Resource Report 6 must:
  - (1) Describe, by milepost, mineral resources that are currently or potentially exploitable;

- (2) Describe, by milepost, existing and potential geological hazards and areas of nonroutine geotechnical concern, such as high seismicity areas, active faults, and areas susceptible to soil liquefaction; planned, active, and abandoned mines; karst terrain; and areas of potential ground failure, such as subsidence, slumping, and landsliding. Discuss the hazards posed to the facility from each one.
- (3) Describe how the project would be located or designed to avoid or minimize adverse effects to the resources or risk to itself, including geotechnical investigations and monitoring that would be conducted before, during, and after construction. Discuss also the potential for blasting to affect structures, and the measures to be taken to remedy such effects.
- (4) Specify methods to be used to prevent project-induced contamination from surface mines or from mine tailings along the right-of-way and whether the project would hinder mine reclamation or expansion efforts.
- (5) If the application involves an LNG facility located in zones 2, 3, or 4 of the Uniform Building Code's Seismic Risk Map, or where there is potential for surface faulting or liquefaction, prepare a report on earthquake hazards and engineering in conformance with "*Data Requirements for the Seismic Review of LNG Facilities*," NBSIR 84-2833. This document may be obtained from the Commission staff.
- (6) If the application is for underground storage facilities:
  - (i) Describe how the applicant would control and monitor the drilling activity of others within the field and buffer zone;
  - (ii) Describe how the applicant would monitor potential effects of the operation of adjacent storage or production facilities on the proposed facility, and vice versa;
  - (iii) Describe measures taken to locate and determine the condition of old wells within the field and buffer zone and how the applicant would reduce risk from failure of known and undiscovered wells; and
  - (iv) Identify and discuss safety and environmental safeguards required by state and Federal drilling regulations.
- (i) **Resource Report 7 - Soils.** This report is required for all applications except those not involving soil disturbance. It must describe the soils that would be affected by the proposed project, the effect on those soils, and measures proposed to minimize or avoid impact. Resource Report 7 must:
  - (1) List, by milepost, the soil associations that would be crossed and describe the erosion potential, fertility, and drainage characteristics of each association.
  - (2) If an aboveground facility site is greater than 5 acres:
    - (i) List the soil series within the property and the percentage of the property comprised of each series;
    - (ii) List the percentage of each series which would be permanently disturbed;
    - (iii) Describe the characteristics of each soil series; and
    - (iv) Indicate which are classified as prime or unique farmland by the U.S. Department of Agriculture, Natural Resources Conservation Service.
  - (3) Identify, by milepost, potential impact from: Soil erosion due to water, wind, or loss of vegetation; soil compaction and damage to soil structure resulting from movement of construction vehicles; wet soils and soils with poor drainage that are especially prone to structural damage; damage to drainage tile systems due to movement of construction vehicles and trenching activities; and interference with the operation of agricultural equipment due to the probability of large stones or blasted rock occurring on or near the surface as a result of construction.
  - (4) Identify, by milepost, cropland and residential areas where loss of soil fertility due to trenching and backfilling could occur.
  - (5) Describe proposed mitigation measures to reduce the potential for adverse impact to soils or agricultural productivity. Compare proposed mitigation measures with the staff's current "*Upland Erosion Control, Revegetation and Maintenance Plan*," which is available from the Commission Internet home page or from the Commission staff, and explain how proposed mitigation measures provide equivalent or greater protections to the environment.
- (j) **Resource Report 8 - Land use, recreation and aesthetics.** This report is required for all applications except those involving only facilities which are of comparable use at existing compressor, meter, and regulator stations. It must describe the existing uses of land on, and (where specified) within 0.25 mile of, the proposed project and changes to those land uses

that would occur if the project is approved. The report shall discuss proposed mitigation measures, including protection and enhancement of existing land use. Resource Report 8 must:

- (1) Describe the width and acreage requirements of all construction and permanent rights-of-way and the acreage required for each proposed plant and operational site, including injection or withdrawal wells.
  - (i) List, by milepost, locations where the proposed right-of-way would be adjacent to existing rights-of-way of any kind.
  - (ii) Identify, preferably by diagrams, existing rights-of-way that would be used for a portion of the construction or operational right-of-way, the overlap and how much additional width would be required.
  - (iii) Identify the total amount of land to be purchased or leased for each aboveground facility, the amount of land that would be disturbed for construction and operation of the facility, and the use of the remaining land not required for project operation.
  - (iv) Identify the size of typical staging areas and expanded work areas, such as those at railroad, road, and waterbody crossings, and the size and location of all pipe storage yards and access roads.
- (2) Identify, by milepost, the existing use of lands crossed by the proposed pipeline, or on or adjacent to each proposed plant and operational site.
- (3) Describe planned development on land crossed or within 0.25 mile of proposed facilities, the time frame (if available) for such development, and proposed coordination to minimize impacts on land use. Planned development means development which is included in a master plan or is on file with the local planning board or the county.
- (4) Identify, by milepost and length of crossing, the area of direct effect of each proposed facility and operational site on sugar maple stands, orchards and nurseries, landfills, operating mines, hazardous waste sites, state wild and scenic rivers, state or local designated trails, nature preserves, game management areas, remnant prairie, old-growth forest, national or state forests, parks, golf courses, designated natural, recreational or scenic areas, or registered natural landmarks, Native American religious sites and traditional cultural properties to the extent they are known to the public at large, and reservations, lands identified under the Special Area Management Plan of the Office of Coastal Zone Management, National Oceanic and Atmospheric Administration, and lands owned or controlled by Federal or state agencies or private preservation groups. Also identify if any of those areas are located within 0.25 mile of any proposed facility.
- (5) Identify, by milepost, all residences and buildings within 50 feet of the proposed pipeline construction right-of-way and the distance of the residence or building from the right-of-way. Provide survey drawings or alignment sheets to illustrate the location of the facilities in relation to the buildings.
- (6) Describe any areas crossed by or within 0.25 mile of the proposed pipeline or plant and operational sites which are included in, or are designated for study for inclusion in: The National Wild and Scenic Rivers System (16 U.S.C. 1271); The National Trails System (16 U.S.C. 1241); or a wilderness area designated under the Wilderness Act (16 U.S.C. 1132).
- (7) For facilities within a designated coastal zone management area, provide a consistency determination or evidence that the applicant has requested a consistency determination from the state's coastal zone management program.
- (8) Describe the impact the project will have on present uses of the affected area as identified above, including commercial uses, mineral resources, recreational areas, public health and safety, and the aesthetic value of the land and its features. Describe any temporary or permanent restrictions on land use resulting from the project.
- (9) Describe mitigation measures intended for all special use areas identified under paragraphs (j)(2) through (6) of this section.
- (10) Describe proposed typical mitigation measures for each residence that is within 50 feet of the edge of the pipeline construction right-of-way, as well as any proposed residence-specific mitigation. Describe how residential property, including for example, fences, driveways, stone walls, sidewalks, water supply, and septic systems, would be restored. Describe compensation plans for temporary and permanent rights-of-way and the eminent domain process for the affected areas.
- (11) Describe measures proposed to mitigate the aesthetic impact of the facilities especially for aboveground facilities such as compressor or meter stations.
- (12) Demonstrate that applications for rights-of-way or other proposed land use have been or soon will be filed with Federal land-management agencies with jurisdiction over land that would be affected by the project.

- (k) **Resource Report 9 - Air and noise quality.** This report is required for applications involving compressor facilities at new or existing stations, and for all new LNG facilities. It must identify the effects of the project on the existing air quality and noise environment and describe proposed measures to mitigate the effects. Resource Report 9 must:
- (1) Describe the existing air quality, including background levels of nitrogen dioxide and other criteria pollutants which may be emitted above EPA-identified significance levels.
  - (2) Quantitatively describe existing noise levels at noise-sensitive areas, such as schools, hospitals, or residences and include any areas covered by relevant state or local noise ordinances.
    - (i) Report existing noise levels as the  $L_{eq}$  (day),  $L_{eq}$  (night), and  $L_{dn}$  and include the basis for the data or estimates.
    - (ii) For existing compressor stations, include the results of a sound level survey at the site property line and nearby noise-sensitive areas while the compressors are operated at full load.
    - (iii) For proposed new compressor station sites, measure or estimate the existing ambient sound environment based on current land uses and activities.
    - (iv) Include a plot plan that identifies the locations and duration of noise measurements, the time of day, weather conditions, wind speed and direction, engine load, and other noise sources present during each measurement.
  - (3) Estimate the impact of the project on air quality, including how existing regulatory standards would be met.
    - (i) Provide the emission rate of nitrogen oxides from existing and proposed facilities, expressed in pounds per hour and tons per year for maximum operating conditions, include supporting calculations, emission factors, fuel consumption rates, and annual hours of operation.
    - (ii) For major sources of air emissions (as defined by the Environmental Protection Agency), provide copies of applications for permits to construct (and operate, if applicable) or for applicability determinations under regulations for the prevention of significant air quality deterioration and subsequent determinations.
  - (4) Provide a quantitative estimate of the impact of the project on noise levels at noise-sensitive areas, such as schools, hospitals, or residences.
    - (i) Include step-by-step supporting calculations or identify the computer program used to model the noise levels, the input and raw output data and all assumptions made when running the model, far-field sound level data for maximum facility operation, and the source of the data.
    - (ii) Include sound pressure levels for unmuffled engine inlets and exhausts, engine casings, and cooling equipment; dynamic insertion loss for all mufflers; sound transmission loss for all compressor building components, including walls, roof, doors, windows and ventilation openings; sound attenuation from the station to nearby noise-sensitive areas; the manufacturer's name, the model number, the performance rating; and a description of each noise source and noise control component to be employed at the proposed compressor station. For proposed compressors the initial filing must include at least the proposed horsepower, type of compression, and energy source for the compressor.
    - (iii) Far-field sound level data measured from similar units in service elsewhere, when available, may be substituted for manufacturer's far-field sound level data.
    - (iv) If specific noise control equipment has not been chosen, include a schedule for submitting the data prior to certification.
    - (v) The estimate must demonstrate that the project will comply with applicable noise regulations and show how the facility will meet the following requirements:
      - (A) The noise attributable to any new compressor station, compression added to an existing station, or any modification, upgrade or update of an existing station, must not exceed a day- night sound level ( $L_{dn}$ ) of 55 dBA at any pre-existing noise-sensitive area (such as schools, hospitals, or residences).
      - (B) New compressor stations or modifications of existing stations shall not result in a perceptible increase in vibration at any noise-sensitive area.
  - (5) Describe measures and manufacturer's specifications for equipment proposed to mitigate impact to air and noise quality, including emission control systems, installation of filters, mufflers, or insulation of piping and buildings, and orientation of equipment away from noise-sensitive areas.



(l) **Resource Report 10 - Alternatives.** This report is required for all applications. It must describe alternatives to the project and compare the environmental impacts of such alternatives to those of the proposal. The discussion must demonstrate how environmental benefits and costs were weighed against economic benefits and costs, and technological and procedural constraints. The potential for each alternative to meet project deadlines and the environmental consequences of each alternative shall be discussed. Resource Report 10 must:

- (1) Discuss the "no action" alternative and the potential for accomplishing the proposed objectives through the use of other systems and/or energy conservation. Provide an analysis of the relative environmental benefits and costs for each alternative.
- (2) Describe alternative routes or locations considered for each facility during the initial screening for the project.
  - (i) For alternative routes considered in the initial screening for the project but eliminated, describe the environmental characteristics of each route or site, and the reasons for rejecting it. Identify the location of such alternatives on maps of sufficient scale to depict their location and relationship to the proposed action, and the relationship of the pipeline to existing rights-of-way.
  - (ii) For alternative routes or locations considered for more in-depth consideration, describe the environmental characteristics of each route or site and the reasons for rejecting it. Provide comparative tables showing the differences in environmental characteristics for the alternative and proposed action. The location of any alternatives in this paragraph shall be provided on maps equivalent to those required in paragraph (c)(2) of this section.

(m) **Resource Report 11 - Reliability and safety.** This report is required for applications involving new or recommissioned LNG facilities. Information previously filed with the Commission need not be refiled if the applicant verifies its continued validity. This report shall address the potential hazard to the public from failure of facility components resulting from accidents or natural catastrophes, how these events would affect reliability, and what procedures and design features have been used to reduce potential hazards. Resource Report 11 must:

- (1) Describe measures proposed to protect the public from failure of the proposed facilities (including coordination with local agencies).
- (2) Discuss hazards, the environmental impact, and service interruptions which could reasonably ensue from failure of the proposed facilities.
- (3) Discuss design and operational measures to avoid or reduce risk.
- (4) Discuss contingency plans for maintaining service or reducing downtime.
- (5) Describe measures used to exclude the public from hazardous areas. Discuss measures used to minimize problems arising from malfunctions and accidents (with estimates of probability of occurrence) and identify standard procedures for protecting services and public safety during maintenance and breakdowns.

(n) **Resource Report 12 - PCB contamination.** This report is required for applications involving the replacement, abandonment by removal, or abandonment in place of pipeline facilities determined to have polychlorinated biphenyls (PCBs) in excess of 50 ppm in pipeline liquids. Resource Report 12 must:

- (1) Provide a statement that activities would comply with an approved EPA disposal permit, with the dates of issuance and expiration specified, or with the requirements of the Toxic Substances Control Act.
- (2) For compressor station modifications on sites that have been determined to have soils contaminated with PCBs, describe the status of remediation efforts completed to date.

(o) **Resource Report 13 - Engineering and design material.** This report is required for construction of new liquefied natural gas (LNG) facilities, or the recommissioning of existing LNG facilities. If the recommissioned facility is existing and is not being replaced, relocated, or significantly altered, resubmittal of information already on file with the Commission is unnecessary. Resource Report 13 must:

- (1) Provide a detailed plot plan showing the location of all major components to be installed, including compression, pretreatment, liquefaction, storage, transfer piping, vaporization, truck loading/unloading, vent stacks, pumps, and auxiliary or appurtenant service facilities.
- (2) Provide a detailed layout of the fire protection system showing the location of fire water pumps, piping, hydrants, hose reels, dry chemical systems, high expansion foam systems, and auxiliary or appurtenant service facilities.

- (3) Provide a layout of the hazard detection system showing the location of combustible-gas detectors, fire detectors, heat detectors, smoke or combustion product detectors, and low temperature detectors. Identify those detectors that activate automatic shutdowns and the equipment that would shut down. Include all safety provisions incorporated in the plant design, including automatic and manually activated emergency shutdown systems.
- (4) Provide a detailed layout of the spill containment system showing the location of impoundments, sumps, subdikes, channels, and water removal systems.
- (5) Provide manufacturer's specifications, drawings, and literature on the fail-safe shut-off valve for each loading area at a marine terminal (if applicable).
- (6) Provide a detailed layout of the fuel gas system showing all taps with process components.
- (7) Provide copies of company, engineering firm, or consultant studies of a conceptual nature that show the engineering planning or design approach to the construction of new facilities or plants.
- (8) Provide engineering information on major process components related to the first six items above, which include (as applicable) function, capacity, type, manufacturer, drive system (horsepower, voltage), operating pressure, and temperature.
- (9) Provide manuals and construction drawings for LNG storage tank(s).
- (10) Provide up-to-date piping and instrumentation diagrams. Include a description of the instrumentation and control philosophy, type of instrumentation (pneumatic, electronic), use of computer technology, and control room display and operation. Also, provide an overall schematic diagram of the entire process flow system, including maps, materials, and energy balances.
- (11) Provide engineering information on the plant's electrical power generation system, distribution system, emergency power system, uninterruptible power system, and battery backup system.
- (12) Identify all codes and standards under which the plant (and marine terminal, if applicable) will be designed, and any special considerations or safety provisions that were applied to the design of plant components.
- (13) Provide a list of all permits or approvals from local, state, Federal, or Native American groups or Indian agencies required prior to and during construction of the plant, and the status of each, including the date filed, the date issued, and any known obstacles to approval. Include a description of data records required for submission to such agencies and transcripts of any public hearings by such agencies. Also provide copies of any correspondence relating to the actions by all, or any, of these agencies regarding all required approvals.
- (14) Identify how each applicable requirement will comply with 49 CFR part 193 and the National Fire Protection Association 59A LNG Standards. For new facilities, the siting requirements of 49 CFR part 193, subpart B, must be given special attention. If applicable, vapor dispersion calculations from LNG spills over water should also be presented to ensure compliance with the U.S. Coast Guard's LNG regulations in 33 CFR part 127.
- (15) Provide seismic information specified in Data Requirements for the Seismic Review of LNG facilities (NBSIR 84-2833, available from FERC staff) for facilities that would be located in zone 2, 3, or 4 of the Uniform Building Code Seismic Map of the United States.

*[Order 603, 64 FR 26611, May 14, 1999, as amended by Order 603-A, 64 FR 54537, Oct. 7, 1999; Order 609, 64 FR 57392, Oct. 25, 1999; Order 699, 72 FR 45328, Aug. 14, 2007; Order 756, 77 FR 4895, Feb. 1, 2012]*