

PSD GUIDANCE DOCUMENT

Prepared by:

NATIONAL PARK SERVICE  
AIR QUALITY DIVISION  
PERMIT REVIEW UNIT  
P.O. BOX 25287  
DENVER, COLORADO 80225

APRIL 1981

## CONTENTS

Purpose

Page 2

Summary of the Clean Air Act as Amended

(August 7, 1977)

Page 3

Summary of Requirements Applicable to Class I Areas

Page 5

Appendices

A. NPS Permit Notification List

A 1-4

B. FWS Permit Notification List

B 1-3

## PURPOSE

This document provides guidance to persons intending to submit a Prevention of Significant Deterioration (PSD) permit application for a Major Emitting Facility (MEF) that has the potential to impact a Class I area managed by the National Park Service (NPS). Much of the information needed by the NPS to adequately evaluate a permit application must be collected well before the permit is submitted. By following the guidance in this document, the applicant can prevent delays in the review process caused by an incomplete application. Also, under a cooperative agreement with the Fish and Wildlife Service (FWS), the NPS Air Quality Division is providing technical review of PSD permits that affect FWS Class I areas. Therefore, the guidance provided herein applies to the FWS Class I areas as well.

## SUMMARY OF THE CLEAN AIR ACT, AS AMENDED (AUGUST 7, 1977)

The Clean Air Act (CAA), as amended in August, 1977, is a unique tool for use in the preservation of air quality and sensitive resources in the National Park and Wildlife Refuges.

Sections 160-169 of the Act established a detailed policy and regulatory program to protect the quality of the air in regions of the United States in which the air is cleaner than required by the National Ambient Air Quality Standards (NAAQS) to protect public health and welfare. One of the purposes of the program of Prevention of Significant Deterioration (PSD) is "to preserve, protect, and enhance the air quality in national parks, national wilderness areas, national monuments, national seashores, and other areas of special national or regional natural, recreational, scenic, or historic value."

Under the PSD provisions, Congress established a land classification scheme for those areas of the country with air quality better than the NAAQS. Class I allows very little deterioration of air quality; Class II allows moderate deterioration; and Class III allow more deterioration; but in all cases, the pollution concentrations shall not violate any of the NAAQS. Congress designated certain existing areas as mandatory Class I which precludes redesignation to a less restrictive class, in order to acknowledge the value of maintaining these areas in relatively pristine condition. These mandatory Class I areas include: (1) international parks (2) national wilderness areas and national memorial parks in excess of 5,000 acres; and (3) national parks in excess of 6,000 acres existing as of August 7, 1977. The National Park System includes 48 mandatory Class I areas (see Appendix A) and The Fish and Wildlife Service manages 21 mandatory Class I areas (See Appendix B). All mandatory Class I areas with their respective Federal land Managers are given in the November 30, 1979, FEDERAL REGISTER.

Lands can be redesignated by the States and, in some cases, by Indian tribes, as explained in Section 164 of the Act. Congress also protected other nationally significant lands by originally designating them as Class II and restricting redesignation to Class I only. These areas include existing national monuments, national primitive areas, national preserves, national recreation areas, national wildlife refuges, national wild and scenic rivers, national lakeshores and seashores in excess of 10,000 acres, and newly established national parks or wilderness areas in excess of 10,000 acres. All other areas were initially classified as Class II, and can be redesignated as either Class I or Class III.

Section 164(d) required the FLM to review all national monuments, primitive areas, and national preserves and to recommend any appropriate areas for redesignation to Class I. The recommendations, with supporting analysis, were reported to the Congress and the affected States and Indian tribes, that were responsible for undertaking any redesignation. These recommendations may be found in the June 25, 1980, FEDERAL REGISTER.

Congress provided two methods for protecting air quality and resources sensitive to changes in air quality. Section 163 established maximum allowable increases in air quality over baseline concentrations of certain pollutants for each class. These maximum allowable

increases, or increments, cannot be exceeded by new or modified existing sources of those pollutants unless the owner or operator demonstrates to the satisfaction of the FLM, and the FLM certifies that air quality related values (AQRVs) of Class I areas will not be adversely affected. Such new or modified existing sources (Major Emitting Facilities - MEFs) are required to submit a preconstruction permit application to the Environmental Protection Agency (EPA) or to a State if permitting authority has been delegated to the state by the EPA or through an approved State Implementation Plan (SIP). The FLM is notified by the EPA or by the State the receipt of a permit application and has an opportunity to comment on the application if the MEF is to be located near a mandatory Class I area or if the pollutants from the facility would potentially violate the increments or affect the air quality related values of Class I areas. For the analysis, complete PSD applications should be forwarded to the National Park Service Air Quality Division, and the NPS Regional Director and Area Superintendent or the Air Quality Specialist at FWS and the Refuge Manager if a National Refuge is involved. The appropriate addresses are given in Appendices A and B.

Congress also gave the FLM an affirmative responsibility to protect AQRVs in mandatory Class I areas. AQRVs are all those values possessed by an area that may be affected by changes in air quality, and include all those assets of an area whose visibility, significance, or integrity are dependent upon the air environment. These values include visibility, odor, flora, fauna, and geological resources; archeological, historical, and other cultural resources; and soils and water quality resources. In the permit review process, no permit shall be issued if the FLM can convince the permitting authorities that one or more AQRV will be adversely affected regardless of whether the PSD increments would be met. Conversely, if the major emitting facility can convince the permitting authority and the FLM that no damage to AQRVs will occur, the source may be allowed to exceed the Class I PSD increments.

Congress has determined that potential impacts on visibility in mandatory Class I areas are so serious that special provisions are necessary to protect this specific air quality related value. Under the requirements of Section 169A of the CAA, the EPA promulgated regulations (40 CFR 51 Subpart P) that require those States with mandatory Class I areas submit implementation plans that assure the prevention of future and the remedying of existing visibility impairment. Federal Land Managers have already determined that visibility is an important value in all 48 of the mandatory Class I areas managed by the National Park Service. A recommendation on the 21 mandatory areas managed by FWS has not as yet been made. In order to remedy existing visibility impairment, the states are to establish regulations requiring that major stationary sources that were in existence on August 7, 1977 (but that were not in excess of 15 years old on that date) be retrofitted with controls representing the best available retrofit technology if those sources pose a threat to visibility in a mandatory Class I area. Prevention of future impairment is to be accomplished under the new sources review process.

## SUMMARY OF REQUIREMENTS APPLICABLE TO CLASS I AREAS

All the requirements of Title 40 of the Code of Federal Regulations, Part 52, section 52.21 (40 CFR 52.21) are applicable. Those requirements that the National Park Service will especially be reviewing are discussed in this section.

### Air Quality Review [40 CFR 52.21(k)]

The permit application must contain an air quality analysis that analyzes the effect of the MEF on the Class I increment. The applicant shall base the air quality review on approved models as specified in 40 CFR 52.21 (l) (Guideline on Air Quality Models). All assumptions for the analysis should be explicitly stated, and sufficient information on modelling input should be furnished so that the model analysis can be duplicated by the NPS. The model must make maximum use of meteorological data as specified in the referenced Guideline on Air Quality Models. If the analysis indicates violations of Class I increments, the application must attempt to prove that there would be no damage to AQRVs. The applicant may wish to contact the National Park Service Air Quality Division (P.O. Box 25287, Denver, CO 80225) before doing the air quality review to be sure that the model will adequately predict the impact on the Class I area.

### Monitoring [40 CFR 52.21 (m)]

A complete permit application must contain preapplication air monitoring data. In general one year of data is required. The National Park Service Air Quality Division should be contacted to facilitate installation of monitoring equipment in NPS Class I areas. Initiation of air monitoring studies in the National Parks originates in this office which in turn seeks the cooperation of the appropriate NPS Regional Office and Park Superintendent. This office will also coordinate monitoring efforts with the appropriate FWS authorities, if applicable. Since there are monitoring programs underway in several parks, contacting the Air Quality Division can help avoid duplication of effort.

### Source Information [40 CFR 52.21 (n)]

The application must show that all sources have applied BACT for each pollutant emitted. In general, the source parameter information required by the State or EPA will suffice for the NPS permit review. However, by consulting with the Air Quality Division as soon as results of the air quality impact assessment are available, possible delays after permit submittal can be avoided should the NPS require additional information.

### Additional Impact Analyses [40 CFR 52.21 (o)]

Because the Federal Land Manager has an affirmative responsibility to protect air quality related values in Class I areas and to consider whether a proposed source or modification will have an adverse impact on such values, the NPS and FWS is most interested in additional impact analyses required under 40 CFR 52.21 (o). Specifically the applicant should provide an analysis of the impairment to visibility, soils, flora, and fauna that would occur as a

result of the source or modification and general commercial, residential, industrial, and other growth associated with the source or modification. Also, an air quality impact analysis is required to project the result of general commercial, residential, industrial, and other growth associated with the source or modification.

Analysis of the potential adverse impacts on soils, flora and fauna should include existing vegetation types, the percent cover and biomass, spatial distribution and land use. Rare and endangered species and acidic wetlands should also be identified. Ozone concentrations and estimates of fluoride and heavy metal emissions must be supplied with pollutant baseline concentrations and pollutant contribution from all sources.

The application must include an analysis of potential visual impairment caused by the project including effects on visual range, contrast changes, and atmospheric discoloration. The magnitude, frequency, and duration of the impairment must be specified. Guidance for estimating visibility impairment is available from the EPA (Workbook for Estimating Visibility Impairment, EPA 450/4-80-031). Pictorial presentation of the results using photographs, computer simulations or artist's conceptions would be beneficial.

To assist the applicant in performing these additional impact analyses, the NPS and FWS will provide to the applicant, within 60 days of his request, a list of sensitive receptors in the potentially impacted Class I area. The applicant should submit his request to the Park Service Air Quality Division.

APPENDIX A  
NPS PERMIT NOTIFICATION LIST

Notify Regional Director at: Midwest Regional Office National Park Service 1709 Jackson Street Omaha, Nebraska 68102	Jurisdiction Ohio, Indiana, Michigan, Wisconsin, Illinois, Minnesota, Iowa, Missouri, Nebraska, Kansas
Mid-Atlantic Regional Office National Park Service 143 South Third Street Philadelphia, PA 19106	Pennsylvania, Maryland, West Virginia, Delaware, Virginia, excluding parks assigned to National Capital Region
North Atlantic Regional Office National Park Service 15 State Street Boston, MA 02109	Maine, New Hampshire, Vermont, Massachusetts, Rhode Island Connecticut, New York, New Jersey
National Capitol Region National Park Service 1100 Ohio Drive, S.W. Washington, D.C. 20242	District of Columbia, some units in Maryland, Virginia, West Virginia
Rocky Mountain Regional Office National Park Service 655 Parfet Street P.O. Box 25287 Denver, CO 80225	Montana, North Dakota, South Dakota, Wyoming, Utah, Colorado
Southeast Regional Office National Park Service 1895 Phoenix Blvd. Atlanta, GA 30349	Kentucky, Tennessee, North Carolina South Carolina, Mississippi, Alabama, Georgia, Florida, Puerto Rico, Virgin Islands
Southwest Regional Office National Park Service P.O. Box 728 Santa Fe, New Mexico 87501	Arkansas, Louisiana, Texas Oklahoma, New Mexico, northeast corner of Arizona
Pacific Northwest Regional Office National Park Service 601 Fourth and Pike Bldg. Seattle, Washington 98101	Idaho, Oregon, Washington, Alaska
Western Regional Office National Park Service 450 Golden Gate Avenue, Box 26063 San Francisco, CA 94102	California, Nevada, most of Arizona, Hawaii

In All Cases Notify:

National Park Service  
Air Quality Division  
Permit Review Unit  
P.O. Box 25287  
Denver, CO 80225

Notify NPS Class 1 Area Superintendant at:

A-2

Acadia National Park  
Route 1, Box 1  
Bar Harbor, ME 04609

Arches National Park  
446 South Main Street  
Moab, Utah 84532

Badlands National Monument  
P.O.Box 6  
Interior, South Dakota 57750

Bandelier National Monument  
Los Alamos, NM 87544

Big Bend National Park  
Big Bend National Park, Texas 79834

Black Canyon of the Gunnison, National Monument  
P.O. Box 1648  
Montrose, CO 81401

Bryce Canyon National Park  
Bryce Canyon, Utah 84717

Canyonlands National Park  
446 South Main Street,  
Moab, UT 84532

Carlsbad Caverns National Park  
3225 National Parks Highway  
Carlsbad, NM 88220

Capitol Reef National Park  
Torry, Utah 84775

Chiricahua National Monument  
and Wilderness Area  
Dos Cabezas Star Route  
Willcox, AZ 85643

Crater Lake National Park  
P.O. Box 7  
Crater Lake, Oregon 97604

Craters of the Moon National Monument  
P.O. Box 29  
Arco, Idaho 83213

Everglades National Park  
P.O. Box 279  
Homestead, Florida 33030

Glacier National Park  
West Glacier, Montana 59936

Grand Canyon National Park  
P.O. Box 129  
Grand Canyon, Arizona 86023

Grand Teton National Park  
P.O. Box 67  
Moose, Wyoming 83012

Great Smoky Mountain National Park  
Gatlinburg, TN 37738

Great Sand Dunes National Monument  
P.O. Box 60  
Alamosa, CO 81101

Guadalupe Mountains National Park  
3225 National Parks Highway,  
Carlsbad, Texas 88220

Haleakala National Park  
P.O. Box 537  
Makawao, Hawaii 96768

Hawaii Volcanoes National Park  
Hawaii National Park, Hawaii 96768

Isle Royale National Park  
87 North Ripley Street  
Houghton, MI 49931

Joshua Tree National Monument  
74485 Palm Vista Drive  
Twentynine Palms, CA 92277

Kings Canyon National Park  
Three Rivers, CA 93271

Lassen Volcanic National Park  
Mineral, CA 96063

Lava Beds National Monument  
P.O. Box 867  
Tulelake, CA 96134

Mammoth Cave National Park  
Mammoth Cave, KY 42259

Mesa Verde National Park  
Mesa Verde National Park, CO 81330

Mount McKinley National Park  
P.O. Box 9  
McKinley Park, Alaska 99755

Mount Rainier National Park  
Tahoma Woods, Star Routh  
Ashfor, WA 98304

North Cascades National Park  
800 State Street  
Sedro Woolley, WA 98284

Sequoia National Park  
Three Rivers, CA 93271

Olympic National Park  
600 East Park Avenue  
Port Angeles, WA 98302

Petrified Forest National Park  
Petrified Forest National Park, AZ 86028

Pinnacles National Monument  
Piacines, CA 95043

Point Reyes National Seashore  
Point Reyes, CA 94956

Redwood National Park  
Drawer N.  
Crescent City, CA 95531

Rocky Mountain National Park  
Estes Park, Co 80517

Saguaro National Monument  
P.O. Box 17210  
Tucson, AZ 85731

Shenandoah National Park  
Route 4, Box 292  
Luray, Virginia 22835

Theodore Roosevelt National Memorial Park  
Medora, ND 58645

Virgin Islands National Park  
P.O. Box 806  
Charlotte Amalie  
St. Thomas, VI 00801

Voyageurs National Park  
P.O. Drawer 50  
International Falls, MN 56649

Wind Cave National Park  
Hot Springs, SD 57747

Yellowstone National Park  
P.O. Box 168  
Yellowstone National Park, WY 82190

Yosemite National Park  
P.O.Box 577  
Yosemite National Park, CA 95389

Zion National Park  
Springdale, UT 84767

National Park Service Air Quality Program Manager  
Barbara D. Brown  
National Park Service  
Main Interior Bldg.  
18th & C Streets, N.W.  
Washington, D.C. 20240  
Room 3311

FWS Permit Notification List

APPENDIX B

Notify Regional Director at:  
U.S. Fish and Wildlife Service  
Lloyd 500 Building, Suite 1692  
500 N.E. Multnomah Street  
Portland, Oregon 97232  
U.S. Fish and Wildlife Service  
P.O. Box 1306  
Albuquerque, New Mexico 87103  
U.S. Fish and Wildlife Service  
Federal Building, Fort Snelling  
Twin Cities, Minnesota 55111  
U.S. Fish and Wildlife Service  
Richard B. Russell Federal  
Building  
75 Spring Street, S.W.  
Atlanta, Georgia 30303  
U.S. Fish and Wildlife Service  
One Gateway Center, Suite 700  
Newton Corner, Massachusetts  
02158  
  
U.S. Fish and Wildlife Service  
P.O. Box 25486  
Denver Federal Center  
Denver, CO 80225

ALASKA AREA OFFICE

U.S. Fish and Wildlife Service  
1011 E. Tudor Road  
Anchorage, Alaska 99507

Jurisdiction  
Washington, Oregon, Idaho,  
Nevada, Hawaii, California

Arizona, New Mexico, Oklahoma,  
Texas

Minnesota, Wisconsin, Illinois,  
Indiana, Ohio

Arkansas, Louisiana, Mississippi,  
Alabama, Georgia, Florida, North  
Carolina, South Carolina,  
Tennessee,  
Kentucky, Puerto Rico  
Virginia, W. Virginia, Maryland,  
Delaware, Pennsylvania, New Jersey,  
New York, Vermont, New Hampshire,  
Maine, Massachusetts, Connecticut,  
Rhode Island

Montana, Wyoming, North Dakota,  
South Dakota, Nebraska, Iowa,  
Utah, Colorado, Kansas, Missouri

In All Cases Notify

National Park Service  
Air Quality  
Permit Review  
P.O. Box 25287  
Denver, CO 80225

DOI - FWS, Division of Refuges  
Division Branch of Planning  
Unit Air Quality Specialist  
18th & C Streets NW  
Washington, DC 20240

Notify FWS Refuge Manager at:

B-2

Bering Sea  
Clarence Rhode National Wildlife Range  
Box 346  
Bethel, AK 99559

Simeonof  
Izembek  
Pouch #2  
Cold Bay, AK 99571

Tuxedni  
Kenia National Moose Range  
Box 2139  
Soldotna, AK 99669

Chassahowitzka  
Route 2, Box 44,  
Homosassa, FL 32646  
St. Marks  
Box 68  
St. Marks, FL 32355

Wolf Island  
Georgia Coastal Complex  
Box 8487  
Savannah, GA 31402

Okefenokee  
Box 117  
Waycross, GA 31501

Mooshorn  
Box X  
Calais, ME 04619

Seney  
Seney, MI 49883

Delta-Breton  
Venice, LA 70091

Mingo  
Rural Route 1, Box 9A  
Puxico, MO 63960

UL Bend  
Charles M. Russell  
Box 110  
Lewiston, MT 59457

Medicine Lake [a superscript "2" appeared here]  
Medicine Lake, MT 59247

Red Rock Lakes  
Monida Star Routh, Box 15  
Lima, MT 59729

Brigantine  
Great Creek Road, Box 72  
Oceanville, NJ 08231

Bitter Lake  
Box 7  
Roswell, NM 88201

Bosque del Apache  
Box 1246  
Socorro, NM 87801

Swanquarter  
Mattamuskeet  
Route 1, Box N-2  
Swanquarter, NC 27885

Lostwood  
Rural Route 2  
Kenmare, ND 58746

Wichita Mountains Wildlife Refuge  
Route 2, Box 448  
Indiahoma, OK 73552

Cape Romain  
Route 1, Box 191  
Awendaw, SC 29101