Preparing A Notice of Intent (NOI)
The NOI Guide
Tenth Edition

Send your NOI Application to:

Bryce Bird, Director
Utah Division of Air Quality
195 North 1950 West
P.O. Box 144820
Salt Lake City, Utah 84114-4820

The following documents are available to assist in the NOI process:

Official Utah Air Quality Rules (R307): Permitting Rules

AP-42: EPA's Air Pollutant Emission Factors

Utah Division of Air Quality
New Source Review Section
June 7, 2011

Preface to the Tenth Edition

This document's main purpose is to help our customers prepare a complete Notice of Intent (NOI) for an air quality approval order (AO). The federal and state air quality rules, including the Utah State Implementation Plan, are extensive in size and in implications. Industry is required to conduct operations in accordance with those rules regardless of what requirements may be in your AO.

Before issuing an AO, the law requires the Division of Air Quality (Division) to review and assess an NOI for technical accuracy and completeness of a proposed design, construction, and operation. The law provides that the review of the NOI be completed within 90 days after the receipt of a **complete** NOI. Should additional time be required for the review, the law provides for three 30-day extensions. To perform the reviews quickly and effectively, the Division has developed this document as a guide for the reviewing engineer, as well as for those who plan to develop and submit an NOI.

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Your comments on improvements to this document are welcome. Please send your comments to Jon Black, Environmental Engineer, Utah Division of Air Quality, PO Box 144820, Salt Lake City, Utah 84114-4820 or e-mail comments to JLBLACK@UTAH.GOV and your suggestions will be considered in future editions.

For quick and accurate answers to your questions, please contact the following Sections shown below. You may reach any of these groups by calling (801) 536-4000.

Air Quality Modeling:	New Source Review Section
Annual Emission Fees:	Operating Permit Section
Approval Orders:	New Source Review Section
Hazardous Air Pollutants:	DAQ's Toxicologist
MACT Standards:	MACT Coordinator
Maintenance Areas:	SIP Inventory Section

Acronyms, Abbreviations, and Definitions

AO	Approval Order, same as an air quality permit to construct
AERMOD	Air dispersion modeling system
APCE	Air pollution control equipment
Attainment areas	Areas of the state that are NOT in violation of NAAQS
BACT	Best available control technology (for new or modified sources)
CAA (A)	Clean Air Act (Amendments) of 1990
CFR	Code of Federal Regulations
CO	Carbon monoxide
CO_2	Carbon dioxide
DAQ	Utah Division of Air Quality
DEQ	Utah Department of Environmental Quality
Dscfm	Dry standard cubic feet per minute
EPA	U.S. Environmental Protection Agency
FDCP	Fugitive dust control plan
Gr	Grain, 1/7000 lb; 7000 grains = one pound
Gram	Metric unit of weight equal to one thousandth of a kilogram
HAP	Hazardous air pollutant
Hr	Hour
Lb	Pound mass
LAER	Lowest achievable emission rate (See Utah Air Quality Rule R307-403)
MACT	Maximum achievable control technology
Maintenance Area	See Appendix III
Major source	See the definitions in R307 on the Internet (see address on the cover sheet)
Micron	A unit of length equal to one millionth of a meter
NAAQS	National Ambient Air Quality Standards
NESHAP	National Emission Standards for Hazardous Air Pollutants (Listed in 40 CFR 61 & 63)
NAA	Nonattainment Areas: Listed in Appendix III
NOI	Notice of Intent to construct, same as an application for an approval order
NO_x	Oxides of nitrogen, combined
NO_2	Nitrogen Dioxide
NSPS	New Source Performance Standard (Listed in 40 CFR 60)
NSR	New Source Review
O_3	Ozone
OP	Operating Permit
OPP	Operating Permit Program
PM_{10}	The size of particulate matter up to and including 10 microns
$PM_{2.5}$	The size of particulate matter up to and including 2.5 microns
ppmdv	Parts per million based on dry volume of the gas
PSD	Prevention of significant deterioration (for areas whose air is cleaner than NAAQS)
PV	Present value of the equipment
RACT	Reasonably available control technology
SCREEN3	Name of a computer model that computes pollutant concentration in air
Sec	Seconds
SIP	State Implementation Plan

SO_x	Oxides of sulfur, combined
Synthetic minor status:	When a source accepts an emission limit below the level of becoming a major source.
TLV	Threshold limit value (see Appendix IV)
TPD	Tons per day
TPY	Tons per year
TSP	Total suspended particulate matter -- irrespective of size
UAC	Utah Administrative Code
UAQR	Utah Air Quality Rules (R307)
UTM	Universal Transverse Mercator (another way of expressing the latitude and the longitude of a facility)
VOC	Volatile organic compound, like benzene, toluene, etc

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Internet addresses for:

Official air quality rules (R307): http://www.rules.utah.gov/publicat/code/r307/r307.htm

AP-42: EPA's Air Pollutant Emission factors: http://www.epa.gov/ttnchie1/ap42/

Generic Forms: http://www.airquality.utah.gov/Permits/Permitting_Forms.htm

I. Introduction:

The State of Utah requires an air quality permit be obtained to build, own, or operate a facility that releases pollution into the atmosphere. In the statute, an application for such a permit is called a NOI to construct. The NOI should be submitted to the DAQ. The permit is called an AO. The review of the NOI and the writing of the AO proceed in accordance with federal and state laws and regulations.

II. Exemption from NOI:

Your facility and its operation may not require an AO. Check New Source Review Exemptions from Permitting in Utah Air Quality Rules R307-401-9 thru R307-401-16. A Source Type Determination table is also available to assist you in this determination.

III. Your NOI:

Before getting an AO to build a source of potential air pollution, the owner or the operator must submit an NOI to the DAQ. If you have doubts whether or not you need an AO call the NSR Section of DAQ to find out. Before preparing an NOI, it is advisable that you call the NSR Section and schedule a Pre-NOI meeting. The 'Pre-Notice of Intent Meeting Checklist', 'Pre-Notice of Intent Meeting Summary' and 'Notice of Intent Completeness Checklist' are documents prepared to help our customers know what questions to ask in a Pre-NOI discussion with DAQ staff and how to prepare a complete NOI. Please complete as much information requested in these documents prior to scheduling or attending a Pre-NOI meeting.

IV. Data Requirements:

If you intend to build or operate any facility there may be Permitting Forms available. Please fill out each selected form per given instruction and send it to the DAQ with your NOI. These permitting forms ensure the information necessary to the NOI package being provided.

Use one or more of the generic forms to provide the DAQ information necessary to review your proposed action and to issue an AO. If the forms do not fit your proposal or allow you to provide complete information, you should submit an NOI as described in this document. [1]

Give your complete physical and mailing address including the UTM coordinates of the facility. **If you need help in determining the UTM coordinates of your facility, please call us at (801) 536-4000 and ask to speak with the NSR Modeling Section.**

If you are submitting an NOI, please include the following:

A. Completed Form 1 and data as requested below and a discussion, if necessary, to help us understand your proposed air pollution controls and process. This helps us to issue your AO quickly. If you can, submit your NOI electronically in addition to the original hardcopy. It will save us time and your AO will be processed quicker.

B. Determine your source category. Your source may be considered a Small Source, Minor Source, or Major Source which Title V and PSD may apply. A Source Type Determination table is provided to assist you in this determination.

[1] Please note that these forms gather necessary information for most sources. Additional information may be required from some source types.

C. Describe the processes in detail, include the following:

1. A list of all air pollution-producing equipment.
2. A process flow diagram
3. A list of the type and quantity of raw feed materials, finished products and by-products and the waste produced.
4. A list or description of the chemical reactions involved in your processes and how they affect the emissions.
5. A list of all pollution control equipment.

D. List potential emission points and air contaminants from each point. Include air contaminants that may result from upset/start-up/shut-down conditions in your operation or from failure of your APCE.

E. List potential Greenhouse Gas Emissions. A US EPA Fact Sheet regarding the Greenhouse Gas Tailoring Rule and EPA PSD and Title V Permitting Guidance For Greenhouse Gases documents are available to assist you in this determination.

F. Describe in detail the APCE and operational procedures you have chosen to minimize emissions. (For example, reduced traffic speed, application of moisture to feed material, production rate, etc)

G. The emission rates of the air contaminants you have calculated for each emission point listed in #D above. Include the following:

1. List the normal annual rates[2] and hourly emission rates[3] (in tons per year and pounds per hour) that may result from your operation for each of the following conditions:

   a. When the pollution control equipment, operational practices, and processes function properly, i.e. emissions are controlled.

   b. When none of the pollution control equipment or operational procedures are working, i.e. emissions are uncontrolled emissions.

2. List your estimated hourly and annual quantities of air contaminants that may be released as a result of a typical failure of the process or pollution control devices or procedures during a typical year.

3. For those sources that have emissions through a stack[4], indicate the gas flow rate, contaminant concentration, and other applicable information as necessary.

H. Give calculations of the emission estimates of item G above. Include equations, all relevant emission factors, and references. Explain all assumptions that you may have made in your calculations. The EPA's Air Pollution document entitled AP-42, Compilation of Air Pollutant Emission Factors, Volume I: Stationary Points and Area Sources, may be used as a reference when applicable. Copies of AP-42 may be obtained from Office of Air Quality Planning and Standards, Research Triangle Park, NC 27711. Also, in some cases, the results from properly conducted stack tests may be used as emission factors.

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[2] Used for Inventory purposes at normal operating conditions.

[3] To be verified during compliance testing at maximum possible controlled release rate. Production rate during compliance test will be 90% of maximum capacity.

[4] Stack means any point in a source designed to emit solids, liquids, or gases into the air, including a pipe or duct, but not flares.

I. Conduct a BACT analysis. Explain why the pollution control equipment or operational practice (or no control) you have selected should be considered BACT. In some cases no control may be justified. Please read BACT Analysis Assistance and discuss any questions with NSR staff before submitting your NOI.

J. Give the mailing address of the source's owner and the name and the phone number of a contact person.

K. Read R307-405 to determine if your source is a major PSD source. If so, provide the information asked for in section R307-405. If you need a clarification of this requirement, please call the NSR section at (801) 536-4000 and ask to talk to the NSR engineer on phone duty. A pre-NOI meeting is strongly recommended if you are a PSD source.

L. Read in R307-101-2 the definition of a major source and a major modification. Determine if your source falls under these categories and if it affects any area designated as nonattainment. If so, your source must use control equipment that obtains LAER, which will be less than those from the application of BACT. Nonattainment areas are counties, cities, and locales that are in violation of one or more of the NAAQS. Maps of Nonattainment and Maintenance areas in Utah and a Location Determination Flowchart are available. All other areas in Utah are considered Attainment. It is recommended that you call the DAQ to find out the attainment status of the area you are considering, when you are anticipating making a modification or new installation.

If your source is located in a nonattainment area and is now major or a major modification, provide the following information:

1. Show that your pollution control equipment meets the requirements of LAER. LAER is a more stringent requirement than BACT.

2. Show that all other sources owned/under common control by the same person(s) are in compliance with R307 and the SIP, or are on an approved compliance schedule.

3. Provide a list of available emission credits of the same air contaminant that can be used to offset the increase in emission from your operation. (See R307-403 for offset rules.) Available emission offsets can be viewed at ERC Registry along with guidance on the implementation and use of offsets found in the flowcharts for Major Source Offset Requirements and Minor Source Offset Requirements. Call the Division of Air Quality at (801) 536-4000 for assistance with emission offset credits.

4. Provide an analysis of alternative sites, sizes, production processes, emission control equipment, and/or processes, if your facility is a major source. Show that the benefits of the proposed site for your facility outweigh its environmental costs and impacts.

M. Provide the results of your air quality modeling (dispersion modeling). For these requirements, please refer to the DAQ's Air Quality Emissions Impact Assessment Guidelines. If there are any questions regarding modeling, the NAAQS, PSD increment limits, or dispersion techniques, or if the facility emits hazardous air pollutants for which help is needed in determining TLVs or calculating ETVs, please feel free to contact DAQ NSR Modeling Staff. Modeling Protocol, Meteorological Data, Particle Size Distribution Summary, and 2009 ACGIH—TLVs and UDAQ—TSLs and ETVs documents are also provided for assistance with air quality modeling.

V. The Review of Your NOI

We use the following federal and state guidelines, rules, regulations and standards to review your NOI.

A. Clean Air Act
B. National Ambient Air Quality Standards (NAAQS)
C. Utah Administrative Code, and its subset, R307
D. State Implementation Plan (SIP)
E. New Source Performance Standards (NSPS: 40 CFR 60)
F National Emission Standards for Hazardous Air Pollutants (NESHAPS: 40 CFR 61 & 40 CFR 63).

The DAQ uses established test data and engineering principles to write AOs. The AOs impose operational conditions upon the facilities to minimize the emission of pollutants into the atmosphere and to ensure compliance with the NAAQS. The operation of your facility must comply with your AO at all times.

The DAQ has used the above documents to develop a procedure that our engineers use to review your NOI and develop your AO. A Standard Permitting Flow Diagram and Simplified Permitting Flow Diagram are available for review. **DAQ staff does not do calculations for you.** They only review and validate the analyses and calculations you present in the NOI.

VI. Do You Need an Operating Permit?

Title V of the 1990 Clean Air Act requires that certain industrial sources obtain an Operating Permit (OP) and pay annual emission fees based on the amount of pollutants they actually emit. The OP Requirements are found in R307-415. This is not the same permit (i.e., the AO) that you had to obtain to build or modify your source. The following list will assist you in determining if you must apply for an OP:

1. Some sources subject to a NSPS or NESHAP (including MACT [maximum achievable control technology]), established by EPA may be required to apply [5].

2. Sources that have the potential to emit 100 tons per year or more of any air pollutant.

3. Sources that have the potential to emit 10 tons per year or more of any single HAP (specifically listed in the Clean Air Act), or those that have the potential to emit 25 tons per year or more of a combination of HAPs.

4. Sources subject to Title IV of the CAA (titled Acid Deposition Control).

5. Solid Waste Incinerators, per Section 129(e) of the CAA.

[5] Standards of Performance for New Stationary Sources (CFR 40, Part 60, incorporated by reference under R307-210), National Emission Standards for Hazardous Air Pollutants (CFR 40, Part 61 & 63, incorporated by reference under R307-214.)

If, after you receive an OP, you desire to modify your operations or your permit, you will be required to obtain a revised AO and OP. In most cases that will require submittal of an NOI (as outlined in this guide) to have the modification reviewed and approved. In some cases, the law requires you to not begin operation until your operating permit has been modified. Equipment cannot be installed until you have modified your AO.

Please call 801-536-4000 and ask for an operating permit staff member if you have questions about OP applications or revisions.

VII. The Fee Schedule

Utah law provides for the Division of Air Quality to collect three kinds of fees for the work it performs in the permitting process. These three types of fees are:

A. Application Filing Fee
B. NOI Review Fee
C. Annual Emission Fee

Each year, the legislature reviews and revises the fee schedule as necessary.