

Impacts of New Source Review Reform on Actual Emissions in Florida

Summary

On December 31, 2002, the U.S. Environmental Protection Agency promulgated changes to the New Source Review regulations (the “New Source Review Reform”). These changes only affect the applicability determination procedures of the New Source Review rules, and they have no impact on the requirement under the Florida rules to obtain some form of air construction permit. How and when Florida’s State Implementation Plan will be amended to incorporate the elements of the New Source Review Reform are outside the scope of this report.

This report presents the findings of a study undertaken to examine the impacts of the New Source Review Reform on actual emissions in Florida. The study assesses whether the New Source Review Reform poses a threat to Florida’s attainment status with the National Ambient Air Quality Standards. Florida is one of three states east of the Mississippi river that is in full compliance with all ambient standards, and continuing to maintain compliance with these standards is a top priority of the Florida Department of Environmental Protection. The study also calculates a quantifiable and defensible estimate of the impact of the New Source Review Reform on actual emissions.

The first of the study’s four phases examined recent permitting history through the lens of the New Source Review Reform. The first step was to select a sample of historical projects from a time period large enough to be representative but small enough to be manageable. Once identified, the next step was re-evaluating each project as if the New Source Review Reform had been in place at the time of the project.

The second phase examined what, if any, impact New Source Review Reform might have had on air pollution emissions from identified projects. Assigning a positive or negative emissions impact to the identified projects – caused by a change in New Source Review applicability, limits taken, netting credits used, or the like – was the main effort behind the study.

The third phase entailed projecting a state-wide estimate of the future impact of the New Source Review Reform. This impact was based on estimating future permitting activity by extrapolating past permitting levels as quantified during the initial phase. The net emissions impact followed from applying the results of the case-by-case actual emission impact reviews conducted in the second phase to the projected permitting activity.

Concurrent to these phases of the study, a fourth phase consisted of a literature review to identify technical reports prepared by industry, environmental groups, the U.S. Environmental Protection Agency, and other stakeholders. The search yielded 28 separate documents that had the potential to help quantify the impact of the New Source Review Reform on actual air pollutant emissions. The literature review proved to be a useful exercise in highlighting the strengths and weaknesses of the New Source Review Reform. Along with the impacts study itself, the literature review has helped identify where to focus future efforts.

Based upon these four phases, the impact of the New Source Review Reform on Florida's attainment status is expected to be minimal. Some areas of the state have come much closer to non-attainment status in the past than others. Therefore, depending on the location of the individual projects impacted by the New Source Review Reform, an increase in actual emissions could warrant some closer scrutiny for any impact on Florida's attainment status with the National Ambient Air Quality Standards.

Acronym List

AC	Air Construction (permit)
ALAPCO	Association of Local Air Pollution Control Officials
AOR	Annual Operating Report
ARMS	Air Resource Management System (database)
BACT	Best Available Control Technology
BAR	Bureau of Air Regulation (Florida DEP/DARM)
Btu	British Thermal Unit
CEM	Continuous Emission Monitor
CO	Carbon Monoxide
DARM	Division of Air Resources Management (Florida DEP)
DEP	Florida Department of Environmental Protection
DNR	Wisconsin Department of Natural Resources
EIP	Environmental Integrity Project
EPA	U.S. Environmental Protection Agency
ERP	Equipment Replacement Provisions
EUSGU	Electric Utility Steam Generating Unit
F.A.C.	Florida Administrative Code
GAO	General Accounting Office
LAER	Lowest Achievable Emission Rate
lb or lbs	Pounds (mass)
MACT	Maximum Achievable Control Technology
NAAQS	National Ambient Air Quality Standards
NAPA	National Academy of Public Administration
NAS	National Academy of Science
NEI	National Emissions Inventory
NESCAUM	Northeast States for Coordinated Air Use Management
NNSR	Non-attainment Area New Source Review
NO _x	Nitrogen Oxides
NSPS	New Source Performance Standards
NSR	New Source Review
OIG	Office of Inspector General
PAL	Plantwide Applicability Limit
PIRG	Public Interest Research Group
PM	Particulate Matter

PM ₁₀	Fine Particulate Matter
PPS	Power Plant Siting
PSD	Prevention of Significant Deterioration
RACT	Reasonably Available Control Technology
RRF	Resource Recovery Facility
SIC	Standard Industrial Classification
SIP	State Implementation Plan
SO ₂	Sulfur Dioxide
STAPPA	State and Territorial Air Pollution Program Administrators
TPY	Tons Per Year
TSD	Technical Support Document
VOC	Volatile Organic Compounds
WEPCO	Wisconsin Electric Power Company

Background

What is the NSR Reform?

Brief History

New Source Review (NSR) is a construction permitting program applicable to stationary sources; for purposes of this study, “NSR” (or “the NSR program”) refers to the rules for new major sources and for major modifications to existing major sources. What constitutes a major source or major modification is a function not only of the type of industrial source but also of the air quality in the geographic area in which the source is located. A facility is major for purposes of NSR if any regulated air pollutant exceeds the applicability threshold. But NSR applies to modifications at existing major facilities on a pollutant-by-pollutant basis when a modification is made that causes a significant net emission increase equal to or greater than the applicable significant emission rate for that pollutant.

In areas in attainment with the National Ambient Air Quality Standard (NAAQS) for a given pollutant, the Prevention of Significant Deterioration (PSD) program is applicable to major projects (new major sources or major modifications at existing major sources). A project subject to PSD must undergo an analysis of Best Available Control Technology (BACT), and the project’s impact on air quality in the surrounding area must often be modeled and occasionally limited. In non-attainment areas, the Non-attainment Area New Source Review (NNSR) provisions require the more stringent Lowest Achievable Emission Rate (LAER). NNSR also requires an offset, or reduction in pollution equal to or greater than the new pollution from the project. PSD and NNSR are the two halves of the NSR program.

There has been considerable attention given to the NSR program, with litigation, court decisions, and amendments proceeding almost continuously since its inception. The current round of revisions to the federal NSR program began in the early 1990s when EPA convened the Clean Air Act Advisory Council, a group of stakeholders interested in making clarifying revisions to the program. Several court cases and applicability determinations in the same period, most notably Wisconsin Electric Power Company (WEPCO) and Detroit Edison,¹ provided some partial answers to arguments that had long plagued the program. These answers were limited to a specific industry – electric utilities. In 1996, the U.S. Environmental Protection Agency (EPA) proposed a set of comprehensive changes to the NSR program to address reform issues for all industries.²

NSR Major Source...

(applicability threshold in attainment areas)

...potential to emit 250 tons per year of any regulated air pollutant, or

...potential to emit 100 tons per year of any regulated air pollutant and is on the “list of 28” major source categories (see Table 212.400-1, F.A.C.), or

...potential to emit 5 tons per year of lead

NSR Major Modification...

(significant emission rates in attainment areas)

- Carbon monoxide, 100 tons per year
- Nitrogen oxides, 40 tons per year
- Sulfur dioxide, 40 tons per year
- Ozone, 40 tons per year of volatile organic compounds
- Particulate matter, 25 tons per year
- Fine particulate matter, 15 tons per year
- Other pollutants, as listed in Table 212.400-2, F.A.C.

More recently, in the spring and summer of 2001, President Bush ordered EPA to study the impact of the NSR program, focusing on power plants and refineries. In their report to the President, EPA concluded that NSR had little impact on new capacity, but they found that some reliability, efficiency, or safety projects had been cancelled at existing plants because the projects would have triggered NSR.³ Following this report, EPA took action on the previous 1996 proposal by promulgating final revisions to NSR on December 31, 2002.⁴

Issues Driving the NSR Reform

The NSR program is not very controversial for new sources; new sources are either major or not when they are constructed, and the determination of major source status is fairly straightforward. The complexities of the program result from the determination of whether a project at an existing major source is a major modification. The determination must calculate the emissions before the modification and compare them to estimated emissions following the project. If the difference in emissions is greater than the applicable significant emission rate, then the modification is major for the given pollutant. (Note that the modification must also result in a significant **net** emission increase, so the facility can get credit for having reduced emissions in the past.)

The EPA has been applying a past actual emissions (pre-modification) to future potential emissions (post-modification) test to make this calculation.⁵ Because most facilities operate in an actual, day-to-day mode well below their allowable (potential) emissions, such a test can cause a project to trigger NSR even if the facility expects actual emissions after the modification to stay the same or decrease. In addition, “routine maintenance, repair, and replacement” projects are excluded from the definition of major modification and thus not subject to NSR. Determining what constitutes a routine maintenance, repair, or replacement activity is another source of controversy.

Conventions used in this document...

- “Major permit” means an air construction permit for a new major source or major modification to an existing major source; these projects are subject to PSD or NNSR.
- “Minor permit” means an air construction permit as required by the Florida SIP; these projects are not subject to PSD or NNSR.
- “Triggers (Avoids) NSR” means the project triggers (avoids) PSD or NNSR.

These two main issues (the actual-to-potential test used in the major modification determination and the lack of a definition for “routine maintenance, repair, and replacement”) were the impetus behind the NSR Reform. The EPA also wanted to respond to some other issues, including criticism of the processing time required to issue a major permit, questions over increment consumption calculations, and relief on timely and costly impacts analysis requirements.

Why was an impacts study conducted?

The EPA’s technical support documents and background papers provided qualitative analyses based on anecdotal information. These reports did not include a quantitative impact on actual emissions for the mix of industries in Florida. The Florida Department of Environmental Protection (DEP) is more familiar with the types of sources and with the specific facilities in the state than EPA, so DEP initiated an impacts study to fill in the missing gap in the analyses.

The study assesses whether the NSR Reform poses a threat to Florida's attainment status with the NAAQS. Florida is one of three states east of the Mississippi river that is in full compliance with all NAAQS, and it is the only highly urbanized state of the three. (The other two are Mississippi and Vermont.) Continuing to maintain compliance with the NAAQS is a top priority of DEP's Division of Air Resource Management (DARM). Because Florida is in attainment, this study necessarily focuses on PSD and not NNSR.

The study also calculates a quantifiable and defensible estimate of the impact of the NSR Reform on actual emissions. It evaluates this impact not only in absolute terms but puts the results in perspective with existing state-wide emissions.

What general parameters and assumptions were followed?

The study focused on estimating impacts on actual emissions. The first of four phases examined recently issued major and minor permits through the lens of the NSR Reform. The first step was to select a sample of historical projects from a time period large enough to be representative but small enough to be manageable. Once identified, the next step was re-evaluating each project as if the NSR Reform had been in place at the time of the project. The second phase examined what, if any, impact the NSR Reform might have had on air pollution emissions from the identified projects. Assigning a positive or negative emissions impact to this difference – caused by a change in NSR applicability, limits taken, netting credits used, or the like – was the main effort behind the study. The third phase entailed projecting a state-wide estimate of the future impact of the NSR Reform. This impact was based on estimating future permitting activity by extrapolating past permitting levels as quantified during the initial phase. The net emissions impact followed from applying the results of the case-by-case actual emission impact reviews conducted in the second phase to the projected permitting activity. Appendix A presents the detailed task schedule that was followed over the course of the impacts study.

Given time and resource constraints, the study evaluated readily available data sources and existing permitting documentation. For the most part, historical emissions information came from the facilities' Annual Operating Reports (AOR) as recorded in the state's Air Resource Management System (ARMS) database. The source of these emission estimates vary from Continuous Emission Monitoring (CEM) systems to annual stack tests to emission factor-based estimates; no effort was made to contact individual facilities concerning their historic emissions data. Permitting documentation was available not only from the DARM Bureau of Air Regulation (BAR) files in the Tallahassee office but also from our District Offices and Local Programs. Again, the study examined existing technical evaluations written at the time of the permitting actions, supplemented in some cases with interviews of the responsible permit engineer.

Estimating the impact of efficiency improvements proved to be beyond the scope of the study. This is important because efficiency gains (i.e., less pollution generated per amount of product) are a core element in EPA's assumption that the NSR Reform results in decreased emissions and is therefore a more stringent program than the existing NSR rules. There was no readily available information to assess efficiency improvements. The AOR data could have been used to provide a rough estimate of efficiency, because facilities report mass emissions of pollutants, operating hours, product throughput, and raw materials used. This data would not have been available with the same quality for every facility.

The specific projects under consideration in the study were typically modifications to facilities that had either a direct or indirect limit on their production. A facility could request a change in those production limits through an air construction (AC) permit, and such a permit would therefore be required when an increase in production is needed by the facility. This study therefore assumes that any efficiency gains (e.g., less lb/ton of product or lb/million Btu of fuel fired) from the projects under consideration will be offset by increased production (e.g., more product or fuel fired). Although less pollution per product might be generated, the project will allow and result in increased production. Changes in efficiency were therefore assumed to have no net impact on actual emissions for this study; treating efficiency gains in any other way would require a detailed case-by-case evaluation and access to data not currently in-house.

To extrapolate how the individual project's actual emissions could impact Florida's ambient air quality, the study assumed that historical trends will continue into the future. It evaluated ten years of permitting activity, which coincides with EPA's arguments in the NSR Reform that ten years is sufficient to capture the ups and downs of the business cycle. Permitting activity by industry category over that past ten years not only gave an idea of what the future permitting activity might look like, but also helped evaluate the state-wide actual emission impact and NAAQS implications.

How is the remainder of this report organized?

- “NSR Reform” discusses the four principle elements of the December 2002 final rules.
- “Impacts Study” presents the nuts and bolts of the study itself, and it includes how the projects were selected and several example calculations of project-specific actual emission impacts of the NSR Reform.
- “Literature Search” identifies and critiques the papers uncovered that also studied the NSR Reform and its possible impacts.
- “Conclusion” summarizes the findings.
- “Other Considerations” points to some non-emission related impacts of the NSR Reform on Florida's NSR program.

NSR Reform

What are the elements of the NSR Reform?

There are four main elements contained in the revisions to the NSR program as promulgated on December 31, 2002: the actual-to-projected-actual applicability test (and its necessary definitions of baseline actual emissions and projected actual emissions), the clean unit concept, plantwide applicability limits, and an exclusion for pollution control projects. A brief synopsis of each element follows.

The **actual-to-projected-actual applicability test** creates an alternative to the controversial “past-actuals-to-future-potentials” applicability test. The applicability tests are used to assess whether a modification causes a significant emissions increase and is therefore subject to NSR. A facility’s potential emissions are often the same as its legally allowable emissions, and the buffer between actual emission levels and allowable levels is referred to as the margin of compliance. Because facilities usually operate with a substantial margin of compliance, almost any modification triggers NSR under the existing past-actuals-to-future-potential test. The NSR Reform maintains this test as an option, but it introduces the actual-to-projected-actual test. The new test acknowledges that on an actuals to actuals basis, a modification may have no impact or even reduce emissions. Where the past-actuals-to-future-potentials test would likely subject the modification to NSR, the new test would not.

The actual-to-projected-actual test necessitates two new definitions: baseline actual emissions and projected actual emissions. In summary, **baseline actual emissions** for electric utility steam generating units (EUSGU) are the annual average emission level over any chosen 24-month period in the past five years, unless some other period is more representative of typical operation. For all other sources, baseline actual emissions are the average of a 24-month period chosen from the past ten years. Baseline actual emissions includes quantifiable fugitives and startup, shutdown, and malfunction emissions; baseline actual emissions must also be corrected for any non-compliant emissions during the 24-month period and to reflect any current legally enforceable limits. Baseline actual emissions are established for each pollutant individually, so a different 24-month period can be used for each pollutant.

(Under the existing rules, actual emissions before a change at most facilities are presumed to be the 24-month period immediately preceding the project. For EUSGU, the allowance to instead use the “highest 2 years from the past 5 years” is already contained in the existing rules pursuant to implementation of the WEPCO decision. This is typical; a majority of the NSR Reform elements are already in place in the existing rules for EUSGU.)

Projected actual emissions are the facility’s estimate of the emission increase directly attributable to the construction project. For a five or ten year period into the future, depending on the nature of the project, the facility projects annual emissions. The maximum annual emission estimate is then set as the projected actual emissions for the project under consideration. To limit emission increases to those directly attributable to the project, the facility can exclude “demand growth” from their projected actual emissions. Demand growth represents emissions that could have been accommodated prior to the construction project (both physically and legally) and that are unrelated to that particular project (e.g., increased utilization of the facility due to an increase in product demand).

The **clean unit** designation allows certain modifications to escape or avoid BACT. Under the NSR Reform, an emissions unit can automatically qualify as a clean unit if it goes through a BACT determination. Alternatively, a facility can request that the permitting authority designate an existing unit as clean. Once clean, projects at that emissions unit are presumed to have an emissions increase of zero and thus avoid NSR, unless the project requires a change in the assumptions or limitations that formed the basis of the clean unit designation (i.e., the emission limitations imposed or the physical or operational characteristics that were relied upon in making the BACT determination). Unless a change is made to the underlying assumptions or limitations that formed the basis for the designation, clean unit status may last for 10 years.

A **plantwide applicability limit** (PAL) is essentially a cap on emissions set at a level that assures any changes made will not trigger NSR so long as the cap is not exceeded. The PAL is set at the baseline actual emission level plus the significant emission rate for each given pollutant. The PAL encompasses the entire facility, and each source of emissions must be monitored.

The NSR Reform includes a list of **pollution control projects** that are presumed to be environmentally beneficial and, therefore, any increases in a collateral pollutant are automatically exempt from NSR. The projects on the list consist of add-on controls (such as flue gas desulfurization and selective non-catalytic reduction) and pollution prevention options (such as switching to a less polluting fuel).

Note that EPA first proposed these concepts in 1996 and 1998 as a menu of optional approaches that individual states could use to tailor their regulatory programs.² In the preamble to this proposal, EPA clarified that, “Instead of one-size-fits-all solutions to applicability and other issues, States will be allowed for the first time to choose applicability and implementation approaches from a menu of alternatives.” The final December 2002 rule meshes these concepts into a single whole that is required to be adopted; this creates some administrative complexity for the adoption process. Deciding how the individual elements work in conjunction with each other and with the state’s rules for minor permits is left to the individual state.

What aspects of the NSR program were not affected by the NSR Reform?

The December 2002 rules only addressed the applicability of NSR to modifications at existing major sources. The revisions were designed to promote flexibility and certainty with respect to whether NSR is triggered for a proposed construction project. No provisions regarding new sources or modifications at existing minor sources were impacted, and the requirements for making a BACT or LAER determination once NSR is triggered did not change.

No changes were made to the procedure for setting the boundaries of a stationary source. No changes were made to the air quality analysis procedures nor the NAAQS. PSD increment consumption remained the same, as did the requirements for additional impact analyses. Major source thresholds for attainment and non-attainment areas are the same, as are major modification significant emission rates. The NSR Reform did not impact emissions offsets, compliance certification, and alternative site analysis requirements for non-attainment areas.

Does the impacts study address the Equipment Replacement Provisions (ERP)?

The rules EPA promulgated on October 27, 2003, addressed a different aspect of the NSR program – what types of projects should be considered routine replacement activities. The NSR rules have always excluded routine maintenance, repair, and replacement from the definition of modification (and therefore from NSR applicability). The October 2003 rules, known as the ERP, create an exclusion that effectively defines a routine replacement to be a replacement activity that costs less than 20 percent of the replacement value of the entire process unit to which the emission unit belongs. In addition, the replacement must not change the basic design criteria of the emission unit, and the replacement must be functionally equivalent, before the ERP excludes the project from NSR.

On December 24, 2003, the Court of Appeals for the District of Columbia Circuit, in response to litigation filed against the ERP, issued a stay of the ERP until the lawsuit can be resolved. This means that pending the resolution of the court case, the ERP will not go into effect.

Accordingly, the ERP is not addressed in this report.

Impacts Study

How were sources identified for inclusion in the study?

The goal of the source identification task was to identify a subset of Florida stationary sources at which construction projects may have been evaluated for PSD applicability. (Recall that there are no non-attainment areas in Florida, so only the PSD rules applied to the time period and projects studied.) Initial data queries provided a list of all permitted facilities in Florida. Filters based on established search criteria pared down this all-inclusive list to just those facilities that were known or potential major sources for purposes of the NSR program. Examining and categorizing the resultant facility list provided a starting point for future analyses.

Search Criteria

Before running detailed database queries of all permits at all facilities, DEP had to establish search criteria. These search criteria helped narrow the field of facilities and permits for review and study. Facilities of interest for the impacts study were those that emit pollutants at or near their PSD major source threshold. They consisted of those facilities that met one or more of the following criteria:

- The “PSD” or “PPS” field in ARMS was filled, indicating that the construction project had been assigned a PSD number or that the project had been subject to power plant siting (PPS). (137 facilities)
- “ESC PSD” (i.e., “Escape PSD”) was listed as the basis for either an emission unit’s allowable emissions or a facility-wide emission cap. (112 facilities)
- The facility’s “maximum allowable annual emissions” of a criteria pollutant were 75 percent or more of the applicable “major source threshold value” for PSD. (224 facilities)
- The facility’s “maximum (reported) actual annual emissions” of a criteria pollutant were 75 percent or more of the applicable “major source threshold value” for PSD. (297 facilities)

“Maximum allowable annual emissions” was the highest criteria pollutant emissions permitted at the facility. For example, a facility may have had a sulfur dioxide (SO₂) limit greater than its limit for any other criteria pollutant.

“Maximum actual annual emissions” was the highest tons of annual emissions (over the period 1992 to 2002) of a single criteria pollutant, as reported in the AOR. For example, a given facility might have emitted more tons of carbon monoxide (CO) in 1997 than tons of any other criteria pollutant in any other year over the period investigated. The CO from 1997 would then be used as the maximum actual annual emissions for comparison to the major source threshold value for PSD.

The “major source threshold value” was the pollution emission rate at which the facility was considered major for purposes of PSD. For most sources, the major source threshold value was a potential-to-emit of 250 tons per year. There were 28 listed facility types that have a major source threshold value of 100 tons per year, potential-to-emit. Again, because there are no non-attainment areas in Florida, the major source threshold values for non-attainment areas did not apply. The facility’s Standard Industrial Classification (SIC) code and description fields,

compared to the “list of 28” from Table 212.400-1, Florida Administrative Code (F.A.C.), identified the appropriate major source threshold value.

Database Queries

Using the search criteria established above, a series of database queries followed. First, a query collected data on all permits issued and entered into ARMS (approximately 25,600 construction permits and operating permits). The number of total facilities in Florida returned by the query was 5,930; the data included their SIC code and any assigned PSD or PPS identification number.

The next query pulled all emissions limits and indicated which limits were taken to avoid triggering PSD. These limits were indicated by an entry of “ESC PSD” in the “basis for allowable emissions” fields for the emission units or in the “basis for emission cap” fields from the facility pollutant data.

The final query included the maximum annual facility-total pollutant emissions (tons) for each criteria pollutant for the period 1992 through 2002. For example, a given facility might have had its highest CO levels in 1994 but its highest nitrogen oxide (NO_x) levels in 2001. The query returned the level of emissions, the pollutant, and the year in which the maximum emissions occurred.

Note that emissions data from calendar year 2003 was not required to be submitted until the spring of 2004. While the impacts study included permitting projects in 2003, this phase of the study did not examine emissions data from 2003 because they were not available at the time of the queries.

Source Categorization

Applying the source criteria to the facility list resulted in a subset of 394 facilities of interest for the impacts study. (Some facilities met two or more of the search criteria, so the total number of distinct facilities of interest was 394.) The following eleven impact study categories defined this sub-population of sources:

- Cement – Portland cement production facilities (8 facilities)
- Chemical/Refining – organic and inorganic chemical production, pharmaceuticals, medicinals, perfumes, cosmetics, paints, coatings, and agricultural chemicals (including nitrogenous but not phosphatic fertilizers) (36 facilities)
- Citrus (21 facilities)
- Electric Utility/Resource Recovery Facilities (RRF) (102 facilities)
- Minerals – quarries, gypsum, phosphate rock, and limestone (27 facilities)
- Miscellaneous – natural gas transmission; refuse, water, and wastewater systems; metal can coating; industrial/commercial/institutional boilers (hospitals, military bases, universities, etc.); marine cargo handling; ship building; and printing (113 facilities)
- Phosphate – phosphatic fertilizers (14 facilities)
- Plastics/Boat Building – plastic parts, fiberglass reinforced plastics, plastics materials, boat building (but not ship building) (24 facilities)

- Primary/Secondary Metals – secondary aluminum, lead recovery and smelting, and steel (11 facilities)
- Pulp/Paper/Wood Products – pulp and paper, sawmills, woodworking, and lumber (30 facilities)
- Sugar – raw cane and refining (8 facilities)

Of the 25,600 total issued permits in the database as of this query, DEP issued 5,960 permits to this subset of 394 facilities. Over the ten-year period from 1994 to 2003 (inclusive), DEP issued 1,290 AC permits to these sources.

While Florida had many electric utilities and other common industrial sources of pollution, there were large numbers of pulp, cement, sugar, citrus, phosphate, and boat manufacturing facilities. These sources represented an unique mix of industries, confirming the rationale and need for this Florida-specific impacts study.

Which projects at these sources were studied?

The goal of the project identification task was to circumscribe a manageable but representative subset of the 1,290 AC permits issued to the 394 facilities of interest. The first step was establishing a look-back period. The next step was to survey the district and local offices to gather additional information on the subset of AC permits issued during the look-back period. Finally, manipulation of a custom-created database yielded a reasonably complete list of projects that had the potential to be impacted by the NSR Reform.

Selection of the Look-back Period

There were two competing goals for selection of the look-back period. The first was manageability. Recognizing that a survey of the district and local offices along with a file review for the Tallahassee permits would be necessary, keeping the total number of permits to a reasonable number was important. The second was representativeness. Enough permits needed to be reviewed to get a representative sample.

Over the 10-year period 1994 to 2003 (inclusive), DEP issued 1,290 AC permits to the subset of 394 facilities of interest for this study; from the 5-year period 1999 to 2003, DEP issued 629 permits to these facilities. The second half of the ten year period included 49 percent of the total. This suggests that the activity level was about the same in the first and second halves of a 10-year look-back period.

In other words, permit activity (relevant to this impacts study) from 1994 to 1998 is about the same as the activity from 1999 to 2003; there were 661 permits at the facilities of interest from 1994 to 1998 and 629 permits from 1999 to 2003. Over this same time period, the permits were also well distributed among the industrial categories identified for this study. Limiting the look-back period to the previous 5 years (1999 through 2003, inclusive) seemed to meet the manageable and representative goals.

Tables 1 and 2 summarize the recent permitting activity.

Table 1. AC Permitting History by Permitting Office

Permitting Office	Total (1994 – 2003)	1994 – 1998		1999 – 2003	
		Permits	% of Total	Permits	% of Total
Central	65	43	66 %	22	34 %
Northeast	105	65	62 %	40	38 %
Northeast – Duval	63	29	46 %	34	54 %
Northwest	132	68	52 %	64	48 %
South	75	37	49 %	38	51 %
Southeast	31	23	74 %	8	26 %
Southeast – Broward	27	14	52 %	13	48 %
Southeast – Dade	18	6	33 %	12	67 %
Southeast – Palm Beach	9	3	33 %	6	67 %
Southwest	199	127	64 %	72	36 %
Southwest – Hillsborough	109	75	69 %	34	31 %
Tallahassee	457	171	37 %	286	63 %
Total	1,290	661	51 %	629	49 %

Table 2. AC Permitting History by Impacts Study Industrial Category

Industrial Category	Total (1994 – 2003)	1994 – 1998		1999 – 2003	
		Permits	% of Total	Permits	% of Total
Cement	46	22	48 %	24	52 %
Chemical/Refining	179	105	59 %	74	41 %
Citrus	76	41	54 %	35	46 %
Electric Utility/RRF	243	74	30 %	169	70 %
Minerals	72	41	57 %	31	43 %
Miscellaneous	297	167	56 %	130	44 %
Phosphate	136	90	66 %	46	34 %
Plastics/Boatbuilding	68	35	51 %	33	49 %
Primary/Secondary Metals	30	17	57 %	13	43 %
Pulp/Paper/Wood Products	98	50	51 %	48	49 %
Sugar	45	19	42 %	26	58 %
Total	1,290	661	51 %	629	49 %

Surveys and Interviews

For the 629 permits that fell within the selected look-back period (1999 to 2003), 286 were Tallahassee permits and required looking through permit files and interviewing BAR staff. The other 343 were from district and local offices. A brief survey sent to the district and local offices asked three basic questions for each project:

- (1) What was the nature of the AC permit (for example, a new emission unit, equipment replacement, or increased production)?

- (2) What mechanism was used to avoid triggering PSD (for example, naturally a minor modification, emission limits taken to avoid PSD, or exemption from PSD)?
- (3) Was a formal PSD non-applicability determination made? (In other words, did the permit contain a technical evaluation or similar documentation, and did that documentation specifically address PSD non-applicability through calculations, engineering judgment, or other means?)

The survey went out in March 2004, and a majority of the responses returned by the end of April 2004. Appendix B includes the survey cover letter and an example of the questionnaires sent to the District Offices and Local Programs.

Survey Results

The survey results database, created specifically for this study, tracked the responses and helped analyze the information. Appendix C shows some sample data screens from the database. Tables 3 and 4 summarize the results of the survey.

Note that an individual permit could encompass more than one action. For example, a permit may have provided for a new emissions unit as well as a change in fuel type at an existing emissions unit. The percentages in the following tables therefore add up to more than 100 percent. The percentage listed for an item identifies how many of the 629 surveyed projects included that item (or used that PSD-avoidance methodology). For example, 22 percent of the 629 projects (137 projects) included an increase in production, and 18 percent of the 629 projects (116 projects) avoided PSD through taking an emission limit.

Table 3. AC Permit Summary

Minor AC Permits	Number	Percent (of the 629 total permits)
New emission unit(s)	203	32 %
Increased production	137	22 %
Change in production method	66	10 %
New product	11	2 %
Change in allowable fuel	33	5 %
Equipment replacement (like kind)	40	6 %
Equipment replacement (upgrade)	47	7 %
Equipment repair or maintenance	3	< 1 %
Incorporation of NSPS/NESHAP	35	6 %
Installation of a control device	49	8 %
Extension of permit expiration date	35	6 %
Other change in permit condition	181	29 %
Major AC Permits		
Tallahassee-issued major AC permits	76	12 %

Table 4. Method Identified for Avoiding PSD

PSD was not triggered because...	Number	Percent (of the 629 total permits)
New facility, less than threshold	12	2 %
Modification to minor facility, less than threshold	95	15 %
Modification to major facility, less than significant emission rate	165	26 %
Limits taken to escape PSD	116	18 %
Netting analysis performed	25	4 %
PSD exemption – PCP	39	6 %
PSD exemption – routine replacement	11	2 %
PSD exemption – routine maintenance or repair	2	< 1 %
No reasonable impact on emissions (e.g., change in ownership, change in compliance method, etc.)	132	21 %
Other method of not triggering PSD	35	6 %
PSD non-applicability documentation...		
A formal analysis of PSD non-applicability was documented in a technical analysis or other format.	300	48 %

Which projects would have been impacted by the NSR Reform?

Based on the technical evaluation reviews, there were two broad types of projects for which the NSR Reform would have made a difference. The first was construction projects that triggered PSD and went through a BACT analysis; under the NSR Reform, these projects may or may not have triggered PSD. The second group consisted of projects for which emission limits were taken or netting credits were used to stay under either the major source threshold (for new sources or modifications at existing minor sources) or the significant emission rate increase (for modifications at existing major sources).

The other types of projects would not be impacted by the NSR Reform. Consider, for example, a new facility with potential emissions below the applicable PSD threshold. This facility would not be subject to PSD under the existing rules; the NSR Reform did not change this conclusion. Similarly, many of the historical projects were minor modifications not subject to PSD. Under the NSR Reform, those projects would still be minor modifications.

Additional case-by-case analysis was reserved for the projects where the NSR Reform might have altered the permitting analysis or results. Under the NSR Reform, 76 Tallahassee-issued major permits might have been able to avoid PSD and receive minor permits instead. Emission limits were taken or netting analyses were performed to avoid PSD for an additional 104 minor permits. These projects might have been able to take different limits, surrender fewer netting credits, or avoid PSD through another facet of the NSR Reform. Appendix D lists the 180 projects highlighted for a case-by-case analysis of impacts on actual emissions. Information was readily available to subject 133 of these 180 projects to detailed analysis over the course of the impacts study.

How was an impact on actual emissions estimated?

For each individual project, the first step was to summarize the AC permit, starting with listing what the project accomplished, what controls were pre-existing at the facility, what procedures were used to avoid PSD (minor permits), and what controls were required by the PSD analysis (major permits). Then, reviewing the technical evaluation written at the time of the permit helped identify permitting decisions and any NSR concerns or conclusions.

Documentation for the study included notes from the review of the technical evaluations along with any relevant AOR emissions data. To fully assess the NSR Reform and its baseline actual emissions concept, the study recorded the annual facility-wide data or emissions unit data from the full ten years prior to the construction project through the most current data. For some facilities the ARMS data did not run back to ten years prior to the construction project. Since these queries were run in the fall of 2004, emissions data for calendar year 2003 was available, generally speaking.

Next, each of the four elements of the NSR Reform from the December 2002 rules was examined with an eye towards possible impacts on the permitting decision. The impact of each NSR Reform element was ascertained so that the net impact of the various elements could be evaluated separately.

Generally, the analysis made to estimate an impact on actual emissions involved looking at the facility's real historical data from the years following the project and estimating a change in that emissions data had the permitting decision been made differently. In some cases, future emissions had to be estimated based solely on data prior to the particular modification. The sample calculations below will help illuminate the types of procedures followed.

Sample Calculation: Auburndale Calpine (May 2001)

This project involved adding a new, simple-cycle combustion turbine to an existing electric utility; the existing utility consisted of a single, older combustion turbine. The original project avoided PSD via netting, the setting of a NO_x emissions cap, and the installation of water injection on the new turbine. During the permitting project, past actuals from the existing turbine at the facility were 253 tons per year of NO_x, based on the most recent representative two-year period. The two-year period immediately preceding the project was not representative because of an abnormal number of shutdowns.

The significant emission rate for NO_x is 40 tons, so an increase of 39 tons on a past-actuals to future-potentials basis would not trigger PSD. To avoid PSD, the future potential emissions (allowables) of NO_x were therefore set at $253 + 39 = 292$ tons per year.

Examining the historic data, the NSR Reform's baseline actual emissions would have been set at 334 tons per year (using 1997 and 1998 emission levels). Adding the 39 ton per year cap would result in a facility-wide limit of 373 tons per year. This is an increase of approximately 80 tons in allowable emissions under the NSR Reform.

This project highlighted the relative ease with which the impact of the NSR Reform on allowable emissions can often be evaluated. The probable impact on actual emissions involved some additional assumptions.

Under the existing rules, the old permit split the 292 ton per year NO_x cap among the units – 115 tons of NO_x for the new turbine and 177 tons of NO_x for the old turbine. For the NSR

Reform, the analysis assumed the same 115 tons of NO_x for the new turbine, which would reserve $373 - 115 = 258$ tons of NO_x for the existing turbine. As previously noted, the margin of compliance is how far below the allowable emissions a facility operates; it is often thought of as the actual emissions expressed as a percent of the allowable emissions. Assuming the same margin of compliance pre- and post-modification resulted in an estimate of 220 tons of NO_x per year from the existing turbine.

This assumption was validated, as 220 tons per year was within the range of emissions reported for the existing turbine for the three years immediately preceding the project (215 to 252 tons from 1999 to 2001). And for comparison, the actual emissions from the existing turbine for the years following the project (2002 and 2003) were 153 and 145 tons, respectively.

The conclusion, therefore, was that under the NSR Reform, a larger emission cap would have been sufficient to avoid PSD. The result of the larger cap was that the new turbine could have been installed with little or no change to the method of operation of the existing turbine during the 1999 to 2001 time-period. This would have resulted in 67 more tons of NO_x in 2002 and 75 more tons of NO_x in 2003 over what actually occurred under the existing NSR rules.

Sample Calculation: US Sugar Clewiston (April 2003)

This project consisted of the installation of a modified fuel oil firing system on two boilers (Boiler No. 4 and Boiler No. 7). The project also provided for an increased fuel firing rate, and it avoided NSR through an annual fuel oil usage cutback and a new limit on the sulfur content of the fuel oil. The sulfur limit dropped from 0.7 percent to 0.4 percent on Boiler No. 4, and the fuel use limit at Boiler No. 7 dropped from 4.8 to 4.5 million gallons per year.

Both of these boilers had gone through PSD in the ten years preceding this construction project. Boiler No. 4 received a major permit in 2000, and Boiler No. 7 received a major permit in 1995. By definition, if the NSR Reform had been in place, these boilers would have been considered “clean units.” Thus, the modifications of this project would not have triggered PSD so long as (1) the previously-established oil firing rate limit was not directly established as BACT, and (2) the sulfur content and fuel oil use limitations were not physical or operational characteristics that formed the basis for the BACT determination.

The conclusion was that the higher sulfur content limitation would have remained in place following the modification under the NSR Reform. The allowable SO₂ emissions under the existing rules, based on a fuel oil sulfur content of 0.4 percent and fuel use restrictions, amounted to 14.2 tons per year. The NSR Reform would have allowed the higher sulfur content of 0.7 percent to be maintained, so the impact on SO₂ from the NSR Reform would have been $14.2 \text{ tons (allowable)} * (0.7/0.4) = 24.8 \text{ tons per year (potential emissions)}$.

But since actual emissions of SO₂ in 2003 were 0.48 tons, the estimated impact on actual emissions in the future was only $0.48 \text{ tons} * (0.7/0.4) = 0.84 \text{ tons per year}$.

No impact from the higher fuel oil use limitations was expected, because 2002 and 2003 fuel oil use was 3.7 and 3.6 million gallons. Whether the limit is 4.5 or 4.8 million gallons (under the existing rules or the NSR Reform, respectively) is irrelevant, as the limit was not the restraining factor in how much fuel oil was actually being used.

How many projects would have been impacted by the NSR Reform?

The 133 projects examined were all examples of projects where PSD issues were considered; the projects all took limits, netted out of PSD, or else triggered PSD. Of the 133 projects examined in detail, 39 would have been impacted by the NSR Reform. Most of the 39 projects would have been impacted by more than one element of the NSR Reform. Assuming this pattern holds in the future, the elements of the NSR Reform would need to be examined for a little less than one-third of all construction projects that trigger PSD or avoid PSD through taking limits or using netting. Since 34 percent of the state's permitting workload involves projects that either trigger PSD or avoid it through limits or netting, this could be a significant resource issue.

The NSR Reform, however, had a calculable impact on actual emissions for only 12 projects of the 39. And of those 12, only 7 had an impact greater than 10 tons per year. In terms of overall impact on actual emissions, an estimated 1.5 percent of projects would see an impact greater than 10 tons per year resulting from the NSR Reform [(7 significant impact projects/133 projects examined) * 180 projects highlighted per 629 projects examined = 1.5 percent].

What do the project-specific estimates imply for state-wide impacts?

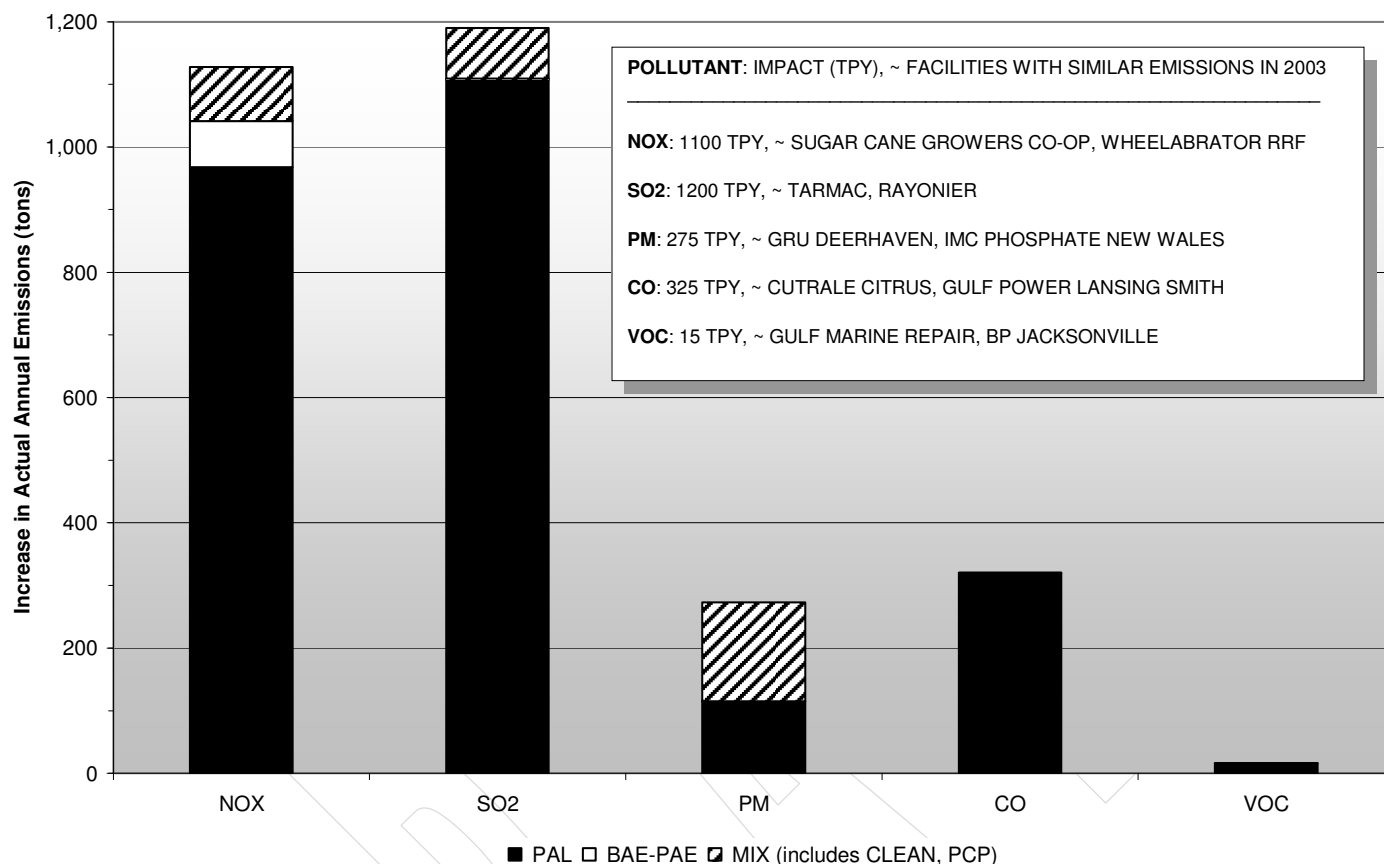
It is difficult to extrapolate the analyses to a state-wide impact, because the case-by-case factors were too variable, and the number of sources where a measurable impact was observed were insufficient. Even within an industry category, the specific impact of the NSR Reform on one project would be notably different from its impact on another; looking at the case-specific factors (historic emission levels, existing controls, prior BACT determinations, netting analyses, debottlenecked emissions, other applicable rules, etc.) on a project by project basis is necessary.

Therefore, no generalized conclusions were possible. In other words, the study was unable to make definitive conclusions along the lines of, "Cement plants would benefit from the clean unit designation and this will result in a certain amount of additional NO_x per year."

Figure 1 presents the net environmental impact of the NSR Reform on the projects examined, and it shows which of the NSR Reform elements were responsible for the impact. The text box embedded in the chart, titled "Pollutant: Impact (TPY)," compares the increase in actual annual emissions to the amount of emissions actually emitted by existing sources. Figure 1 shows the net result of all projects evaluated, so it represents an increase in actual annual emissions that would be seen over a five year period. For example, by the end of its first five years, the NSR Reform is expected to have added around 1200 tons per year of SO₂ – this is approximately the same amount of SO₂ generated annually by a single existing Portland cement plant or pulp and paper facility.

The rough impact on actual annual emissions is equivalent to the amount of emissions of a single major source for a single pollutant. In other words, the NSR Reform would amount to about the same as one new major source of NO_x, SO₂, particulate matter (PM), CO, and volatile organic compounds (VOC) every five years. This impacts study is unable, however, to predict which industry might see this increase, what type of permit would cause it, or where it might be geographically located.

Figure 1. Environmental Impact by NSR Reform Element



What are the qualitative impacts of the NSR Reform?

In addition to the quantitative impacts calculated for each project, examining the details of the permits issued by DEP over the past five years yielded some qualitative conclusions. Most strikingly, DEP has historically used a great deal of flexible permitting approaches. Selection of alternative baseline periods, relying on projections of future actual emissions, using plantwide caps to avoid PSD, exempting functionally equivalent and routine equipment replacements – these are all approaches that DEP has used in the past, under the existing rules.

One important difference between the existing rules and the NSR Reform is the shifting of the burden of demonstrating the applicability of these flexible permitting approaches. The NSR Reform, as spelled out in the federal rules, allows the facility the presumptive use of these concepts. The DEP, however, is required by statute to have reasonable assurances of compliance before authorizing construction through a permit. Therefore, in the absence of a requirement to obtain a major permit, the application forms and DEP procedures for issuing minor permits will likely need to be modified so as to document the facility's use of the NSR Reform.

To evaluate NSR applicability, more staff and expertise will also be required. The District Offices and Local Programs will need to be much more familiar with the nuts and bolts of NSR, and increasing the complexity of the procedures for minor permits will impact resource

requirements. At the Tallahassee office level, DEP will likely need to obtain additional resources to evaluate the myriad of economic analyses conducted pursuant to the NSR Reform. And at all levels, additional compliance and enforcement staff expertise and resources will be required to review reports and records, assess performance versus projected actual emissions, and otherwise implement the NSR Reform.

There are a large number of projects potentially impacted by the NSR Reform, but the overall actual emissions impact is projected to be relatively small. Since the existing rules have accommodated the kinds of flexibility for which the NSR Reform was designed, there seems to be little benefit to the regulated community (or cost to the environment) associated with increasing the complexity of the program.

Literature Search

What technical reports were reviewed?

The goal of the literature search was to identify technical reports prepared by industry, environmental groups, EPA, and other stakeholders in the NSR Reform effort. The search yielded 28 separate documents that could potentially help quantify the impact of the NSR Reform on air pollutant emissions. Most sources, however, did not contain a quantitative analysis.

Studies from Other States

- Wisconsin Department of Natural Resources (DNR) Board Report ⁶

This is the Wisconsin DNR recommendation that their Board authorize public hearings regarding revising their SIP to include the NSR Reform. It includes a fiscal analysis.

Wisconsin DNR estimates that more air pollution will result from the NSR Reform. At the same time, their package indicates a loss of funds (from less facilities triggering NSR) along with the same or increased workload (with less work from permitting but more work from applicability determinations).

This memorandum indicates that most of the emissions increase from the NSR Reform will result from the treatment of replacement units as “existing” units under the Reform, whereas they are treated as “new” units under the existing NSR rules. This memorandum does not, however, contain the details of the Wisconsin DNR analysis.

- Wisconsin DNR Clean Air Task Force Presentation ⁷

This presentation outlines the approach followed by Wisconsin DNR to calculate the impacts of the NSR Reform on emissions. They identified 24 permits issued in 2002 for NSR major modifications and synthetic minor projects. The permits were distributed across industry categories prevalent in Wisconsin (printing, paper, power, foundries, industrial boilers). Next, they compared the resultant BACT or LAER determinations with the next most stringent emissions requirement, such as New Source Performance Standards (NSPS), Maximum Achievable Control Technology (MACT) standards, Reasonably Available Control Technology (RACT) requirements, etc.

The presentation provides one sample calculation per industry category. Summing up the calculations for each of the 24 projects, Wisconsin DNR estimates that had the NSR Reform been in place in 2002, these projects would have resulted in an additional 990 tons on NO_x, 809 tons of VOC, and 992 tons of fine particulate matter (PM₁₀).

- Colorado Study ⁸

The Colorado study looks at major facilities and major modifications (not synthetic minor sources nor projects that took limits to escape NSR). It identifies the major sources in the state, calculates their “baseline actual emissions” under the new rules, and compares that with their current allowable emissions. From this baseline-versus-allowable analysis, the study claims no change in emissions will result from the clean unit, pollution control project, and plantwide applicability limit provisions of the NSR Reform.

The study concludes that the “balance of the regulatory program will mitigate any possible emissions increases.” The study makes no attempt to estimate the impact of the NSR Reform on actual emissions.

- Prehearing Statement re: Colorado Proposed Revisions⁹

Colorado plans to adopt the NSR Reform as written in the Federal rules. A coalition of environmental groups filed petitions opposing Colorado’s plan to revise their NSR program. Their prehearing statements contain technical analyses as attachments.

The example calculations from attachment no. 1 are based on real source data publicly available from Colorado’s Air Pollution Control Division. The coalition’s analysis calculates the “baseline actual emissions” at major non-utility sources by looking back over the 10-year period 1993 to 2002. It then compares the baseline actual emissions with the past 2-year period (2001 and 2002 annual average). Then, the analysis assumes the difference between the two baseline calculations yields an increase in air emissions.

Attachment no. 2 to this prehearing statement contains an analysis of applying a PAL to a utility. This analysis demonstrates how emissions can increase under a PAL where BACT would have resulted in emissions decreases. It is not clear if real-world data was used for this example facility.

- Wisconsin Impacts Study¹⁰

This study is not available at this time. It will expand upon the Wisconsin DNR Clean Air Task Force presentation discussed above, and it will be included in the final report if possible.

- Northeast States for Coordinated Air Use Management (NESCAUM) Study¹¹

The NESCAUM study quantitatively examines the ERP and how it could affect emissions in the Northeast, although the report does note that, “Evidence indicates that several elements of EPA’s NSR changes will, in fact, result in increased emissions that will adversely affect public health and the environment.” The report is critical of EPA’s assertions that emissions will not increase, noting also that, “[EPA] has not conducted any concrete analysis using actual facility data to support [their] conclusion.”

This report uses EPA’s National Emission Inventory (NEI) data and calculates the impact of the ERP on actual and allowable emission levels. It calculates actual emissions increases as the difference between current emission levels and the levels associated with the same facilities operating at an 85 percent capacity factor. The study examines 308 permits from a variety of industrial sources from six different states.

The calculation of increasing emissions to the 85 percent capacity factor assumes that each facility will take advantage of the ERP and make changes to increase production and emissions; the report acknowledges that market demand must also be present for this increase to occur.

The study refers to other regulatory programs (such as Best Available Retrofit Technology and the acid rain rules) and to the other elements of the NSR Reform, but it does not calculate any emissions impacts from them.

Hearings and Studies Requested by Congress

- Senate Hearings, February 2004 ¹²

These hearings consist of testimony in front of the Senate Democratic Policy Committee from Peg Lautenschlager (Wisconsin Attorney General), Bruce Buckheit (former head of EPA enforcement), Eric Schaeffer (Environmental Integrity Project, EIP), and John Paul (representative of the State and Territorial Air Pollution Program Administrators / Association of Local Air Pollution Control Officials, STAPPA/ALAPCO). These witnesses discuss mercury pollution and the proposed Clear Skies initiatives in brief but focus their comments on the NSR Reform.

Ms. Lautenschlager provides Wisconsin's findings that the NSR Reform would have resulted in an extra 990 tons NO_x, 809 tons VOC, and 992 tons PM₁₀ in 2002 alone. Mr. Paul notes that there are 66 utility boilers in Ohio that are 30 years old or older, with close to 1,000,000 tons of SO₂ released in 2002. Applying NSR to these boilers would cut emissions by 90 percent or more. Mr. Paul testifies that under the new rules, all 66 boilers can escape NSR during modifications and so can continue to operate indefinitely.

- EPA's Responses to Senators Jeffords and Leahy, July 2002 ¹³

The EPA's responses to the senators' inquiries contain some data on utility plant SO₂ reductions that would be possible if current emission levels were reduced to NSPS-level controls. The EPA's arguments largely re-state their technical support documents and their supplemental environmental analysis published in support of the NSR Reform.

- General Accounting Office (GAO) "Key Stakeholders' Views" Report ¹⁴

This report summarizes survey responses GAO received from 44 state and 60 local program offices regarding the anticipated impact of the NSR Reform. The report notes that most state agencies expect both air pollutant emissions and agency workload to increase under the NSR Reform. It contains no quantitative analysis.

This report restates GAO's earlier finding that very little quantitative analysis is possible because of a lack of data specific to the NSR program. It is critical of the conclusions in EPA's supplemental environmental analysis regarding emissions impacts of the NSR Reform.

- GAO "NSR Revisions Could Affect Enforcement" Report ¹⁵

In this report, GAO notes that some EPA staff are concerned about the impact of the NSR Reform on the ongoing enforcement cases against some utilities. GAO also recommends that EPA clarify or define the "reasonable possibility of an emissions increase" concept, require facilities to keep records of such determinations, and make such records available to the public. There are no data or impacts analysis in this report.

- GAO "EPA Should Use Data" Report ¹⁶

This report responds to Senators Jeffords and Lieberman, who had tasked GAO with assessing EPA's economic analysis for the NSR Reform as well as EPA's assertion that the NSR Reform will result in less emissions overall. The GAO's main conclusion is that there are no good data available to support the emissions reduction claims. The GAO

notes that EPA relied almost exclusively on anecdotes from regulated industries, and they criticize EPA for not having at least performed a survey or sampling of the industry.

The GAO also makes the point that energy efficiency projects (which form the backbone of EPA's contention that relaxing NSR results in better overall emissions) do not necessarily result in emissions reductions. Production levels will likely increase, and companies will want to maximize production at their most efficient plants.

- National Academy of Public Administration (NAPA) "Breath of Fresh Air" Report ¹⁷

The NAPA makes many recommendations for improving the NSR program. Their seven main recommendations consisted of the following: end grandfathering, retain the existing NSR program for new sources, continue the NSR enforcement initiatives, reform the NSR program for existing sources through a cap and trade approach, obtain better data, clarify compliance requirements, and prepare for the future.

In an afterword to the report, NAPA comments on the NSR Reform. They note that EPA should implement the following changes: require monitoring and reporting for the actual to future actual calculations, limit the use of netting, require advance approval for determinations of "routine" and other exclusions, and clarify and restrict the routine maintenance exemption.

The report contains an exhaustive technical analysis describing the benefit of the old NSR program, but because of the timing of its release, it does not contain a similar analysis regarding the NSR Reform.

- National Academy of Science (NAS) Interim Report on Impacts of the NSR Reform ¹⁸

This study is not available at this time. It will be included in the final report if possible.

Environmental Groups' Reports

- Public Interest Research Group (PIRG) "Lethal Legacy" Report ¹⁹

This report pulls 2002 actual emissions data from EPA's acid rain database for 548 utility plants across the nation. It compares these emission levels to the emissions that would result following NSR-level controls on the utilities. The report assumes that applying BACT to the utilities would achieve 0.15 lb/million Btu NO_x and 0.30 lb/million Btu SO₂.

The report assumes enforcement of the existing NSR rules could achieve BACT-level controls on these utility plants; it acknowledges that some plants would shut down rather than upgrade their air pollution controls. The report challenges that, by adopting the NSR Reform, EPA is causing an emissions increase from the BACT-level up to the current emission level.

The PIRG report identifies 26 plants in Florida that are "dirty," in that they emit more than 20 tons per year higher than the 0.15 / 0.30 lb/million Btu levels for NO_x / SO₂. The Crystal River power plant makes several of the report's lists of the "top 10 dirtiest plants" for various pollutants. Tampa Electric's Gannon and Big Bend power plants are also prominently featured in these lists. Note that since PIRG looked at 2002 data, the Gannon re-powering and the improvements at Big Bend are not reflected.

- Abt Associates Technical Papers²⁰

The Abt Associates technical papers, commissioned by the EIP, look at two permits in detail (a Mobil refinery in Illinois and Nucor Steel in Indiana). In each analysis, using the NSR Reform baseline actual emissions results in avoiding NSR for projects that otherwise would have triggered NSR. These analyses are very detailed and include past emissions data, netting calculations, and the like. The analyses are source specific, so the conclusions are difficult to extrapolate to Florida sources, but the methodology was useful in establishing the approach followed by this impacts study.

- MSB Energy Associates Technical Papers²¹

These technical papers, commissioned by the Clean Air Task Force, study plants in three states in the Northeast and Midwest. They evaluate a potential SO₂ increase by examining the difference between current emission levels and the allowable levels in the facilities' Title V permits. Because most facilities operate with a substantial margin of compliance, the result of this study is a sizeable potential SO₂ increase. It is not clear, however, how this analysis applies to the NSR Reform. The papers do not make any claims with respect to NSR.

- EIP "Reform or Rollback?" Report²²

This study, financed by the EIP and the Council of State Governments/Eastern Regional Conference, examines baseline actual emissions at around 180 non-utility facilities in 12 states. The study also looks at six facilities in more depth to ascertain if any non-NSR Federal rules would restrict emissions growth following modifications exempted from NSR. Florida is one of the 12 states in the baseline actual emissions study, and Stone Container in Panama City, Florida, is one of the six facilities in the detailed study.

The EIP study addresses the baseline actual emissions aspect of the NSR Reform. It calculates the difference between the past 2 years annual average emissions (i.e., the baseline under the existing rules) and the annual average of the highest 2 years of the last 10 years (i.e., the NSR Reform baseline actual emissions). The study then assumes that this difference in baseline emission level equates to an increase in emissions attributable to the NSR Reform.

Industry Groups' Reports

- Clean Air Improvement Project NSR Issue Paper No. 1²³

This paper contains no quantitative analysis of the NSR Reform's impacts on emissions. Rather, it is a selection of arguments made in response to the issuance of the STAPPA/ALAPCO Menu of Options.

STAPPA/ALAPCO Recommendations

- STAPPA/ALAPCO Menu of Options²⁴

The STAPPA/ALAPCO Menu of Options does not contain a quantitative analysis of the impacts of the changes to the Federal rule. Rather, this document is a set of alternative ideas for adopting the NSR Reform. The main goal of the Menu is to present options that protect the environment but that still provide the clarity and flexibility intended by the NSR Reform. The options in the menu also address some language problems and

otherwise clarify the Federal rules. While it is of limited use to the impacts study, the Menu of Options may provide useful ideas during the rulemaking process.

EPA Documents and Reports

- EPA Technical Support Document (TSD) for the Reform ²⁵

This is the comment and response document for the December 2002 rules. The quantitative analysis is published under separate cover in EPA's supplemental environmental analysis. This document mainly addresses legal arguments regarding the elements of the NSR Reform.

- EPA Supplemental Environmental Analysis ²⁶

This is the document in which EPA outlines how the NSR Reform will lead to energy efficiency improvements that will result in a net emissions decrease.

- EPA TSD for the Reconsideration ²⁷

Generally, this TSD responds to comments received following promulgation of the December 2002 rules. The EPA defends its supplemental environmental analysis in this TSD, but they provide no new analysis in this report. EPA does comment on the criticism contained in the GAO white papers, the Abt Associates technical papers, the NAPA report, etc.

- Office of Inspector General (OIG) Report on NSR Enforcement ²⁸

This report from EPA's OIG concludes that the NSR enforcement initiative that began in 1996 was successful in reaching settlement agreements and meeting the goals of the NSR program for existing sources – namely, that pollution controls should be installed in conjunction with other modifications to the plants. In relation to the ERP, the report notes that the NSR Reform has “hampered [Office of Enforcement and Compliance Assurance] settlement activities, existing enforcement cases, and the development of future cases.” This conclusion is regardless of the stay on the ERP; settlement negotiations that were put on hold when the ERP was promulgated have remained on hold since the stay.

This report does calculate a reduction in emissions resulting from the settlements, from pollution control equipment added to existing sources, and from other rules impacting electric utilities. The report does not feature calculations similar to this NSR Reform impacts study.

Which conclusions from the literature search are applicable to the situation in Florida?

With the exception of the Wisconsin and Abt Associates reports, there were no available technical calculations that addressed the possible impact of the NSR Reform on actual emissions. The NESCAUM report did provide useful calculations for the ERP, but since the ERP was not included in this impacts study, those calculations were of interest but little usefulness for this study.

The Wisconsin and Abt Associates evaluations were used as guidelines for the procedure to be followed. But the industry mix in the areas covered by those studies was different from that in Florida. And in addition, the case-by-case details regarding historical permitting decisions by

other agencies were not readily available for review. So while these reports provided examples for how to estimate a change in actual emissions as well as a check on the reasonableness of our impacts calculations, the results were not directly applicable to sources in Florida.

Many of the reports confirmed the findings of this impacts study:

- The Wisconsin DNR's estimate of 800 to 1000 tons per year for three criteria pollutants was not inconsistent with the findings of the Florida study.
- The GAO reported that other states also believe there will be an increase in emissions and resource requirements.
- The GAO also supported the assumptions about efficiency gains being an uncertain indicator of emission reduction.
- The Wisconsin DNR and Abt Associates approach highlighted and supported the need for studying the NSR Reform by looking at historical permitting projects on a case-by-case basis.
- The NAPA report suggested retaining the pre-approval aspect of the NSR program, which will likely need to be addressed through modifications to the rules and procedures for minor permits.

Reviewing all of the reports proved to be a useful exercise. Taken together, the literature search highlighted the strengths and weaknesses of the NSR Reform, and it has helped identify where to focus future efforts as the rulemaking phase commences.

Conclusion

What is the relative magnitude of the estimated impacts of the NSR Reform?

Statewide emissions in Florida for calendar year 2003 amounted to the following totals (as reported in the AOR from all sources required to submit annual reports, whether the source is major or minor, using a general permit, etc.):

- 138,000 tons CO
- 299,000 tons NO_x
- 35,800 tons PM
- 523,000 tons SO₂
- 38,700 tons VOC

As discussed above and graphically presented in Figure 1, the impact study estimated the net emissions increase resulting from the NSR Reform – after a period of five years – to be approximately:

- 325 tons CO
- 1100 tons NO_x
- 275 tons PM
- 1200 tons SO₂
- 15 tons VOC

This estimate represents less than 0.8 percent of the reported actual emissions from all stationary sources for calendar year 2003.

Is Florida's air quality attainment status likely to be impacted by the NSR Reform?

The impact of the NSR Reform on Florida's NAAQS attainment status is expected to be minimal. Some areas of the state have come much closer to non-attainment status in the past than others. Therefore, depending on the location of the individual projects impacted by the NSR Reform, an increase in actual emissions could warrant some closer scrutiny for any impact on NAAQS attainment.

Other Considerations

In addition to the primary goal of evaluating any possible impact on attainment status, other topics were evaluated that will affect the approach to adopting the NSR Reform into Florida's SIP. These recommendations need to be fully explored by the internal rulemaking committee and the public workshop attendees.

- Coordinate with other rulemaking. This will include interaction with pending Federal legislation (Clean Air Interstate Rule, 3- or 4-pollutant bills like Clear Skies), interaction with the state rules for minor permits, and interaction with other innovative avenues for emissions reduction (such as the potential for utility plant pollution control project cost-recovery legislature).
- Follow the pending rules and the litigation. Outcomes of the court cases will doubtless affect the NSR Reform language, and EPA may propose some additional changes to the NSR rules.
- Recognize the burden shift to the District Offices and Local Programs. The NSR Reform will require some additional training and guidance.
- Address the presumptive aspect of the NSR Reform non-applicability determinations through minor permits. Some ideas include modifying the application for air permit forms by adding a check-box that would identify why the applicant believes NSR is not applicable. The NSR-avoidance method selected may then require submittal of supporting information.
- Include the NSR Reform language about not contributing to a NAAQS violation to the rules governing minor permits. The SIP may also want to address non-attainment issues in the parts of the NSR Reform where the reform is silent (such as the fate of a clean unit in an attainment area that becomes non-attainment).

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Project NSR Reform Impacts Study (v1.8)

Starting Date 05-Jan-04
 Completion Date 07-Jan-05
 Present Date 03-Jan-05
 Last Updated 03-Jan-05

*Schedule subject to change pending resource availability.
 No formal allocation of State funding implied.*

Legend	
◆	Project Milestone
■	Uncompleted part of task
■	Completed part of task
■	Overdue part of task

Task Description	Starting Date	Ending Date	% Comp.	No. of Days	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan
					5	2	1	5	3	7	5	2	6	4	1	6	3
Source Identification																	
Establish criteria for sources	05-Jan	07-Jan	100	3													
ARMS query (Yi)	08-Jan	16-Jan	100	7													
ARMS query (Greg)	08-Jan	16-Jan	100	7													
QA query results	17-Jan	21-Jan	100	3													
Re-query	22-Jan	28-Jan	100	5													
Source classification	29-Jan	30-Jan	100	2													
Project Identification																	
Decide how far back to look	31-Jan	03-Feb	100	2													
List sources by office	04-Feb	24-Feb	100	15													
Send lists to DAPA/LAPA	25-Feb	06-Apr	100	30													
Query for BAR issued permits	25-Feb	02-Mar	100	5													
Interview BAR staff	03-Mar	06-Apr	100	25													
List all PSD avoidance projects	07-Apr	07-Apr	100	1													
Project Analysis																	
Examine project cross section	08-Apr	28-Apr	100	15													
Decide on measuring impacts	29-Apr	12-May	100	10													
Decide on project categories	29-Apr	12-May	100	10													
Formalize procedure(s)	13-May	19-May	100	5													
Analyze all projects	20-May	11-Aug	100	60													
Impact by project category	12-Aug	18-Aug	100	5													
Industry Analysis																	
Industry expansion in future	19-Aug	01-Sep	100	10													
Project categories in industry	02-Sep	15-Sep	100	10													
Extrapolate to statewide	16-Sep	29-Sep	100	10													
Literature Search																	
Find other impact studies	05-Jan	18-Jun	90	120													
Study and critique	19-Jun	20-Aug	90	45													
Compile findings	21-Aug	01-Oct	90	30													
Documentation																	
Procedure and assumptions	02-Oct	15-Oct	100	10													
Calculated impact on Florida	02-Oct	08-Oct	100	5													
Literature review	02-Oct	22-Oct	90	15													
Impact comparisons (DEP vs.)	02-Oct	15-Oct	100	10													
Conclusion	23-Oct	29-Oct	100	5													
References	23-Oct	29-Oct	100	5													
Intro and executive summary	23-Oct	29-Oct	100	5													
Review and Publication																	
Compile and complete final draft	30-Oct	10-Dec	100	30													
Final draft, internal review	11-Dec	23-Dec	100	9													
Incorporate comments	24-Dec	06-Jan	100	10													
Compile appendices	24-Dec	06-Jan	100	10													
Public review draft (on web)	07-Jan	07-Jan	0	0													

Memorandum**Florida Department of
Environmental Protection**

TO: District Air Program Administrators
Local Air Program Administrators

THRU: Trina Vielhauer /s/

FROM: Greg DeAngelo /s/

DATE: March 19, 2004

SUBJECT: **New Source Review Reform – Impacts Study**
Questionnaire Re: Permitting at Selected Facilities

As you know, the U.S. Environmental Protection Agency (EPA) promulgated revisions to the New Source Review (NSR) program on December 31, 2002. Litigation is currently pending regarding these rule revisions, which included the concepts of baseline actual emissions, an actual to future actual emissions test for NSR applicability, an exemption for “clean units,” plantwide applicability limits, and pollution control project exclusions.

[Note that the D.C. Circuit Court has issued a stay with regards to the second set of revisions EPA promulgated on October 31, 2003. These so-called “equipment replacement provisions” are therefore not in effect and may not ever need to be incorporated into Florida’s SIP, depending on the outcome of the litigation.]

Like most of the states in the Southeast, to date Florida has been studying the NSR Reform, identifying possible impacts of the revised rules and determining how to proceed with implementation. Florida has officially supported one portion of the NSR Reform (the pollution control project exclusion) and will be filing an amicus brief with the courts.

Florida currently has no non-attainment areas under the NSR program. The primary objective of our efforts with respect to adopting the NSR Reform will be to ensure the future attainment status of all areas of the state. To meet this objective, we are conducting an impacts study. This study will help us determine what the impacts of the revisions to the NSR program might be with respect to Florida’s emission sources, air quality, and future attainment status.

To complete the next stage of this study, we need the help of the District and Local office permitting programs. We have identified a subset of air construction projects at facilities of interest (either over or near PSD Major source thresholds). For each of these projects (20 to 30 for most offices), we have prepared a very brief, three-question survey. **Please have your staff respond with the requested information about these projects by April 9.** Responses can be sent to Greg DeAngelo (2600 Blair Stone Road, MS#5505, Tallahassee, FL 32399-2400). You can also contact Greg with any questions or comments at (850)921-9506 (SC 291-9506) or Gregory.DeAngelo@dep.state.fl.us.

Attachments

TLV/gpd

Office: TAL

Record: 344 of 629

Company: FLORIDA ROCK INDUSTRIES, INC.
Facility: THOMPSON S. BAKER CEMENT PLANT
AIRS: 10087

HERON_T

Permit: 0010087003AC (AC M1)
Issued: 7/17/2000
Project: NEWBERRY CEMENT PLANT

PSD Document Search []
Reading File Review []
Staff Interview []
COMPLETE []

construction permit amendment to add EPA Test Method 25A for measuring VOC emissions

This AC permit was for the following: (check all that apply)

- ☐ New emission unit(s).
- ☐ Increased production (e.g., increased hours of operation or throughput).
- ☐ Change in production method.
- ☐ New product.
- ☐ Change in allowable fuels (e.g., addition of new fuel or removal of sulfur limit).
- ☐ Equipment replacement (i.e., “like for like” replacement of equipment).
- ☐ Equipment upgrade (e.g., new coal pulverizer, new burners, or upgraded stainless steel steam tubes).
- ☐ Equipment repair or maintenance.
- ☐ Incorporation of NSPS or NESHAP requirements.
- ☐ Installation of a control device.
- ☐ Extension of the permit’s expiration date.
- ☐ Other change in permit condition.
(e.g., removal of emissions limit or testing requirement, change in compliance method, etc.)

☐ PSD **was** triggered and a BACT determination was made for one or more pollutants in this permit.

☐ PSD **was not** triggered for one or more pollutants because: (check all that apply)

- ☐ New facility, and PTE was less than 100 (250) tons per year.
- ☐ Modification at a PSD-minor facility, and modification was less than 100 (250) tons per year.
- ☐ Modification at a PSD-major facility, and modification was less than Significant Emission Rate.
- ☐ Limits taken on emissions or production to escape PSD review (“ESCPD”).
- ☐ Netting analysis performed.
- ☐ PSD exemption – pollution control project.
- ☐ PSD exemption – routine replacement.
- ☐ PSD exemption – routine maintenance or repair.
- ☐ No reasonable impact on emissions (e.g., change in ownership, change in compliance method, etc.)

☐ Other: _____

A formal analysis of PSD non-applicability...

- ☐ ...was performed by the applicant or the permitting office.
- ☐ ...was not performed.

PSD FILTER: ☐ Formal analysis of non-applicability **was** performed

<p>This (PSD) minor source AC Permit was for the following:</p> <ul style="list-style-type: none"><input type="checkbox"/> New emission units<input type="checkbox"/> Increased production<input type="checkbox"/> Change in production method<input type="checkbox"/> New product<input type="checkbox"/> Change in allowable fuel<input type="checkbox"/> Equipment replacement (like kind)<input type="checkbox"/> Equipment replacement (upgrade)<input type="checkbox"/> Equipment repair or maintenanc<input type="checkbox"/> Incorporation of NSPS/NESHAP<input type="checkbox"/> Installation of a control device<input type="checkbox"/> Extension of permit expiration dat<input checked="" type="checkbox"/> Other change in permit condition: <div style="border: 1px solid black; height: 30px; width: 100%;"></div>	<p>PSD was not triggered for this AC permit because:</p> <ul style="list-style-type: none"><input type="checkbox"/> PSD **was** triggered for this permit<input type="checkbox"/> New facility less than threshold<input type="checkbox"/> Modification to minor facilit<input type="checkbox"/> Mod to major facility less than SE<input type="checkbox"/> Limits taken to escape PSD review<input type="checkbox"/> Netting analysis performe<input type="checkbox"/> PSD exempt -- PCP<input type="checkbox"/> PSD exempt -- routine replacement<input type="checkbox"/> PSD exempt -- routine mtce or repai<input checked="" type="checkbox"/> No reasonable impact on emission<input type="checkbox"/> Other method of not triggering PSD: <div style="border: 1px solid black; height: 30px; width: 100%;"></div>	<p>OWNER: FLORIDA ROCK INDUSTRIES, INC.</p> <p>SITE: THOMPSON S. BAKER CEMENT PLA</p> <p>PROJECT: NEWBERRY CEMENT PLANT</p> <p>DESCRIPTION: construction permit amendment to add EPA Test Method 25A for measuring VOC emissions</p>
--	--	--

Comments:

PSD FILTER: ☐ Formal analysis of non-applicability **was** performed

<p>This (PSD) minor source AC Permit was for the following:</p> <ul style="list-style-type: none"><input type="checkbox"/> New emission units<input checked="" type="checkbox"/> Increased production<input type="checkbox"/> Change in production method<input type="checkbox"/> New product<input type="checkbox"/> Change in allowable fuel<input type="checkbox"/> Equipment replacement (like kind)<input type="checkbox"/> Equipment replacement (upgrade)<input type="checkbox"/> Equipment repair or maintenanc<input type="checkbox"/> Incorporation of NSPS/NESHAP<input type="checkbox"/> Installation of a control device<input type="checkbox"/> Extension of permit expiration dat<input type="checkbox"/> Other change in permit condition: <div style="border: 1px solid black; height: 30px; width: 100%;"></div>	<p>PSD was not triggered for this AC permit because:</p> <ul style="list-style-type: none"><input type="checkbox"/> PSD **was** triggered for this permit<input type="checkbox"/> New facility less than threshold<input type="checkbox"/> Modification to minor facilit<input type="checkbox"/> Mod to major facility less than SE<input checked="" type="checkbox"/> Limits taken to escape PSD review<input type="checkbox"/> Netting analysis performe<input type="checkbox"/> PSD exempt -- PCP<input type="checkbox"/> PSD exempt -- routine replacement<input type="checkbox"/> PSD exempt -- routine mtce or repai<input type="checkbox"/> No reasonable impact on emission<input type="checkbox"/> Other method of not triggering PSD: <div style="border: 1px solid black; height: 30px; width: 100%;"></div>	<p>OWNER: MOCAR OIL COMPANY, INC.</p> <p>SITE: MOCAR OIL COMPANY, INC.</p> <p>PROJECT: MOCAR OIL CO INC (DIV OF REMS)</p> <p>DESCRIPTION: Gasoline/Diesel Throughput Modification</p>
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Comments:

FACILITY HAS ACCEPTED LIMITS TO AVOID TV AND PSD. OPERATES UNDER AN AF.

PSD FILTER: ☐ Formal analysis of non-applicability **was** performed

This (PSD) minor source AC Permit was for the following:

- ☒ New emission units
- ☐ Increased production
- ☐ Change in production method
- ☐ New product
- ☐ Change in allowable fuel
- ☐ Equipment replacement (like kind)
- ☐ Equipment replacement (upgrade)
- ☐ Equipment repair or maintenanc
- ☐ Incorporation of NSPS/NESHAP
- ☐ Installation of a control device
- ☐ Extension of permit expiration dat
- ☐ Other change in permit condition:

PSD was not triggered for this AC permit because:

- ☐ PSD **was** triggered for this permit
- ☐ New facility less than threshold
- ☐ Modification to minor facilit
- ☐ Mod to major facility less than SE
- ☐ Limits taken to escape PSD review
- ☒ Netting analysis performe
- ☐ PSD exempt -- PCP
- ☐ PSD exempt -- routine replacement
- ☐ PSD exempt -- routine mtce or repai
- ☐ No reasonable impact on emission
- ☒ Other method of not triggering PSD:

OWNER: IFF CHEMICAL HOLDINGS, INC.

SITE: IFF CHEMICAL HOLDINGS, INC.

PROJECT: CHEMICAL PLANT

DESCRIPTION: No. 1 Boiler

Comments:

PSD FILTER: ☒ Formal analysis of non-applicability **was** performed

This (PSD) minor source AC Permit was for the following:

- ☐ New emission units
- ☒ Increased production
- ☒ Change in production method
- ☐ New product
- ☐ Change in allowable fuel
- ☐ Equipment replacement (like kind)
- ☐ Equipment replacement (upgrade)
- ☐ Equipment repair or maintenanc
- ☐ Incorporation of NSPS/NESHAP
- ☐ Installation of a control device
- ☐ Extension of permit expiration dat
- ☐ Other change in permit condition:

PSD was not triggered for this AC permit because:

- ☐ PSD **was** triggered for this permit
- ☐ New facility less than threshold
- ☐ Modification to minor facilit
- ☐ Mod to major facility less than SE
- ☒ Limits taken to escape PSD review
- ☐ Netting analysis performe
- ☐ PSD exempt -- PCP
- ☐ PSD exempt -- routine replacement
- ☐ PSD exempt -- routine mtce or repai
- ☐ No reasonable impact on emission
- ☐ Other method of not triggering PSD:

OWNER: PROGRESS ENERGY FLORIDA, INC.

SITE: INTERCESSION CITY PLANT

PROJECT: FPC-INTERCESSION CITY

DESCRIPTION: Inlet Fogging Systems on Newer peaking units at the 2 facilities in order to obtain additional electric output during summer speak demand periods.

Comments:

FOGGERS

APPENDIX D – Projects Selected for Detailed Review (180)
D R A F T

PERMIT NUMBER	ISSUE DATE	PERMIT OFFICE	IMPACT STUDY CATEGORY	SITE NAME	OWNER/COMPANY NAME	PROJECT NAME
0890003003AC	29-Feb-00	NED	Pulp and Paper / Wood Products	JSC-FERNANDINA BEACH PAPERBOARD MILL	JEFFERSON SMURFIT CORPORATION (US)	PART 63 CLUSTER RULE - NCG
0310071006AC	28-Aug-00	NED	Chemical / Refining	IFF CHEMICAL HOLDINGS, INC.	IFF CHEMICAL HOLDINGS, INC.	CHEMICAL PLANT
0010046004AC	1-Sep-00	NED	Miscellaneous	METAL CONTAINER CORP	METAL CONTAINER CORP	MODIFICATION TO PSD/AC PERMIT
0070016004AC	6-Feb-01	NED	Miscellaneous	SMI JOIST OF FLORIDA	OWEN JOIST CORPORATION	AC FOR TANKS 3,4,5,6 & NEW 7,8
0310039008AC	27-Feb-01	NED	Chemical / Refining	JACKSONVILLE FACILITY	MILLENNIUM SPECIALTY CHEMICALS	REPOWERING PROJECT
0070004006AC	20-Jul-01	NED	Miscellaneous	GRIFFIN INDUSTRIES OF FLORIDA	GRIFFIN INDUSTRIES OF FLORIDA	ALTERNATE FUEL MODIFICATION
0190007004AC	19-Nov-01	NED	Primary / Secondary Metals	GREEN COVE SPRINGS	ILUKA RESOURCES INC.	NOS.1&2 DRYERS & ZIRCOM MODS
0890004010AC	5-Feb-02	NED	Pulp and Paper / Wood Products	FERNANDINA SULFITE MILL	RAYONIER PERFORMANCE FIBERS LLC	NO. 6 DIGESTER
0310071008AC	17-Jul-02	NED	Chemical / Refining	IFF CHEMICAL HOLDINGS, INC.	IFF CHEMICAL HOLDINGS, INC.	BBA-BOILER #1
Northeast District count 9						
0310215008AC	14-Mar-00	NEDV	Miscellaneous	NAS-JACKSONVILLE	UNITED STATES NAVY	NAS-FIFTEEN BOILERS
0310005003AC	31-May-00	NEDV	Miscellaneous	JACKSONVILLE PLANT 07	ANCHOR GLASS CONTAINER CORPORATION	ANCHOR GLASS CONTAINER CORP.
0310005004AC	20-Jun-01	NEDV	Miscellaneous	JACKSONVILLE PLANT 07	ANCHOR GLASS CONTAINER CORPORATION	ANCHOR GLASS CONTAINER
0310271002AC	3-Jul-01	NEDV	Miscellaneous	ENGINEERING POLYMER PRODUCTS	GOODRICH CORPORATION	SONAR DOME MANUFACTURING
0310004007AC	27-Feb-03	NEDV	Miscellaneous	KRAFT FOODS, MAXWELL HOUSE COFFEE	KRAFT FOODS, MAXWELL HOUSE COFFEE	KRAFT FOODS NORTH AMERICA, INC
City of Jacksonville count 5						
1130173001AC	27-Apr-99	NWD	Electric Utility / RRF	COGENERATION PLANT (PEA RIDGE PLANT)	GULF POWER COMPANY	COGENERATION FACILITY
0330006003AC	1-Jul-99	NWD	Minerals	PENSACOLA PLANT	ARMSTRONG WORLD INDUSTRIES, INC.	ARMSTRONG WORLD INDUSTRIES
0330067002AC	17-Sep-99	NWD	Miscellaneous	MAIN STREET WWTP	ESCAMBIA COUNTY UTILITIES AUTHORITY	SLUDGE DRYER CONSTRUCTION

APPENDIX D – Projects Selected for Detailed Review (180)

D R A F T

PERMIT NUMBER	ISSUE DATE	PERMIT OFFICE	IMPACT STUDY CATEGORY	SITE NAME	OWNER/COMPANY NAME	PROJECT NAME
0330139009AC	6-Jun-00	NWD	Miscellaneous	PENSACOLA TERMINAL	TRANSMONTAIGNE PRODUCT SERVICES INC.	TRANSMONTAIGNE TERMINALING INC
0390009003AC	5-Apr-01	NWD	Pulp and Paper / Wood Products	HAVANA MILLS	COASTAL LUMBER CO	COASTAL LUMBER CO
0330006007AC	26-Apr-02	NWD	Minerals	PENSACOLA PLANT	ARMSTRONG WORLD INDUSTRIES, INC.	ARMSTRONG WORLD INDUSTRIES INC
0050057004AC	27-Feb-03	NWD	Plastics / Boatbuilding	SPURLIN INDUSTRIES, INC.	SPURLIN INDUSTRIES, INC.	SPURLIN INDUSTRIES
1290003013AC	16-Jun-03	NWD	Chemical / Refining	ST. MARKS POWDER, INC	ST. MARKS POWDER, INC. A GENERAL DYNAMIC	ST MARKS POWDER INC
0330140004AC	16-Dec-03	NWD	Chemical / Refining	MOCAR OIL COMPANY, INC.	MOCAR OIL COMPANY, INC.	MOCAR OIL CO INC (DIV OF REMS)
Northwest District count 9						
0510003008AC	14-Jun-99	SD	Sugar	U.S. SUGAR CLEWISTON MILL AND REFINERY	U.S. SUGAR CORP. CLEWISTON MILL	U.S. SUGAR CLEWISTON
0510004002AC	3-May-00	SD	Citrus	CITRUS BELLE	A. DUDA & SONS, INC. / CITRUS BELLE	CITRUS BELLE
0510004003AC	19-Oct-00	SD	Citrus	CITRUS BELLE	A. DUDA & SONS, INC. / CITRUS BELLE	MODIFICATION TO LOWER VOC LIM
0990005005AC	19-Jan-01	SD	Sugar	OKEELANTA CORP	OKEELANTA CORP	MODIFICATION TO SUGAR REFINERY
0210031012AC	30-Jul-01	SD	Chemical / Refining	RACCOON POINT	CALUMET FLORIDA, L.L.C.	CALUMET FLORIDA, INC. RACCOON
0550032006AC	20-Aug-03	SD	Chemical / Refining	LESCO, INCOPORATED - SEBRING PLANT	LESCO, INCORPORATED	CONST REMOTE FERTILIZER LD ST
South District count 6						
0112063002AC	8-May-99	SEBR	Miscellaneous	LOEWENSTEIN, INC.	LOEWENSTEIN, INC.	REQUEST AFTER-THE-FACT AC
0112197004AC	19-May-00	SEBR	Chemical / Refining	ANDRX PHARMACEUTICALS, INC.,	ANDRX PHARMACEUTICALS, INC.,	REQUEST AC MODIFICATION
0110058002AC	26-Feb-01	SEBR	Chemical / Refining	CHEVRON PRODUCTS COMPANY	CHEVRON PRODUCTS COMPANY	REQUEST CONSTRUCTION PERMIT
0112197005AC	29-May-01	SEBR	Chemical / Refining	ANDRX PHARMACEUTICALS, INC.,	ANDRX PHARMACEUTICALS, INC.,	REQUEST AC PERMIT EXTENSION
0112197006AC	28-Oct-02	SEBR	Chemical / Refining	ANDRX PHARMACEUTICALS, INC.,	ANDRX PHARMACEUTICALS, INC.,	CONSTRUCTION - MINOR MODIFICAT
0112410002AC	14-Jan-03	SEBR	Miscellaneous	SFWMD PUMP STATION S-9/ S-9A	SOUTH FLORIDA WATER MANAGEMENT DISTRICT	CONSTRUCTION - PUMP S-9A

APPENDIX D – Projects Selected for Detailed Review (180)

D R A F T

PERMIT NUMBER	ISSUE DATE	PERMIT OFFICE	IMPACT STUDY CATEGORY	SITE NAME	OWNER/COMPANY NAME	PROJECT NAME
0112197008AC	12-Nov-03	SEBR	Chemical / Refining	ANDRX PHARMACEUTICALS, INC.,	ANDRX PHARMACEUTICALS, INC.,	CONSTRUCTION
Broward County count 7						
0250020008AC	28-Apr-99	SEDA	Cement	TARMAC-PENNSUCO CEMENT	TARMAC AMERICA LLC	NEW DRY PROCESS PLANT
0250020010AC	1-May-01	SEDA	Cement	TARMAC-PENNSUCO CEMENT	TARMAC AMERICA LLC	CONSTRUCTION, TARMAC PENNSUCO
Miami-Dade County count 2						
0990589001AC	29-Sep-00	SEPB	Plastics / Boatbuilding	MANGONIA PARK	STRUCTURAL TECHNOLOGIES, INC.	INITIAL AC PERMIT
0990021005AC	4-Dec-01	SEPB	Miscellaneous	PRATT & WHITNEY AIRCRAFT	UNITED TECHNOLOGIES CORPORATION	TEST STAND MINOR MODIFICATION
Palm Beach County count 2						
0570040006AC	9-Feb-99	SWD	Electric Utility / RRF	F.J. GANNON STATION	TAMPA ELECTRIC COMPANY	GANNON FUEL YARD MODIFICATIONS
1050001003AC	18-Feb-99	SWD	Citrus	CITROSUCO NORTH AMERICA, INC.	CITROSUCO NORTH AMERICA, INC.	NEW PEEL DRYERS & BOILERS ETC
0810073003AC	4-May-99	SWD	Plastics / Boatbuilding	WELLCRAFT MARINE PLANT #6	WELLCRAFT MARINE PLANT #6	INCREASE VOC'S/HAPS
1050023012AC	26-Jul-99	SWD	Citrus	CUTRALE CITRUS JUICES USA,INC	CUTRALE CITRUS JUICES USA,INC	COGEN SYSTEM
1050100004AC	27-Aug-99	SWD	Plastics / Boatbuilding	RESOLUTION PERFORMANCE PRODUCTS LLC	RESOLUTION PERFORMANCE PRODUCTS LLC	CHEMICAL RESIN MFG
1030112009AC	21-Jan-00	SWD	Chemical / Refining	CARDINAL HEALTH 409, INC.	CARDINAL HEALTH 409, INC.	PHARMACEUTICAL MFG
1050002002AC	28-Mar-00	SWD	Citrus	CITRUS WORLD, INC.	CITRUS WORLD, INC.	NEW GAS TURBINE
1050192004AC	2-Jun-00	SWD	Plastics / Boatbuilding	CARPENTER CO., INSULATION DIVISION	CARPENTER CO., INSULATION DIVISION	INCREASE VOC'S 245TPY
1030112010AC	11-Jul-00	SWD	Chemical / Refining	CARDINAL HEALTH 409, INC.	CARDINAL HEALTH 409, INC.	MODIFY EU004
1050320003AC	21-Jul-00	SWD	Primary / Secondary Metals	KEYMARK CORP OF FLORIDA	KEYMARK CORP OF FLORIDA	NEW EXTRUSION LINE, ETC.
0530010004AC	11-Sep-00	SWD	Cement	CEMEX	CEMEX	LOADOUT SYS MOD (EU023)
1050239005AC	2-Nov-00	SWD	Plastics / Boatbuilding	PREMIER INDUSTRIES, INC.	PREMIER INDUSTRIES, INC.	POLYSTYRENE MFG; NEW EQP,ETC.

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0810073004AC	19-Jan-01	SWD	Plastics / Boatbuilding	WELLCRAFT MARINE PLANT #6	WELLCRAFT MARINE PLANT #6	INCREASE VOC'S-REINSTATE -003
1030112011AC	28-Feb-01	SWD	Chemical / Refining	CARDINAL HEALTH 409, INC.	CARDINAL HEALTH 409, INC.	REMEDIATION OF SOIL
0530010005AC	7-May-01	SWD	Cement	CEMEX	CEMEX	AC MODIFICATION
0530010008AC	14-Feb-02	SWD	Cement	CEMEX	CEMEX	CEMENT SILOS FLOW CHANGE
1030223005AC	13-Sep-02	SWD	Plastics / Boatbuilding	CATALINA YACHTS, MORGAN DIVISION	CATALINA YACHTS, MORGAN DIVISION	STYRENE EMISSIONS INCREASE
1030223006AC	23-Oct-02	SWD	Plastics / Boatbuilding	CATALINA YACHTS, MORGAN DIVISION	CATALINA YACHTS, MORGAN DIVISION	DEP INITIATED CORREC. TO EF'S
1030112016AC	29-Apr-03	SWD	Chemical / Refining	CARDINAL HEALTH 409, INC.	CARDINAL HEALTH 409, INC.	ETHANOL USE IN NAPTHA WASHERS
1030278008AC	19-Jun-03	SWD	Miscellaneous	JABIL CIRCUIT (ROOSEVELT, MLK, & GANDY)	JABIL CIRCUIT, INC.	ADD CIRCUIT BOARD COATING OP.
0810073006AC	19-Nov-03	SWD	Plastics / Boatbuilding	WELLCRAFT MARINE PLANT #6	WELLCRAFT MARINE PLANT #6	ADD EXISTING PLANT 1
1030112017AC	29-Dec-03	SWD	Chemical / Refining	CARDINAL HEALTH 409, INC.	CARDINAL HEALTH 409, INC.	AMEND 1030112-016-AC
Southwest District count 22						
0310047002AC	8-Mar-99	TAL	Electric Utility / RRF	KENNEDY	JE A	JE A-KENNEDY GEN. STAT. CT
0250476002AC	17-Mar-99	TAL	Miscellaneous	MIAMI DADE W&SD/CENTRAL DIST WWTP	MIAMI DADE WATER AND SEWER DEPT	3 DIESEL ENGINE GEN. PSD
1050046008AC	21-Apr-99	TAL	Phosphate	CARGILL FERTILIZER - BARTOW	CARGILL FERTILIZER, INC.	NO. 3 MAP/DAP FERTILIZER PLANT
0970014002AC	17-May-99	TAL	Electric Utility / RRF	INTERCESSION CITY PLANT	PROGRESS ENERGY FLORIDA, INC.	FPC-INTERCESSION CITY
0570008028AC	6-Jun-99	TAL	Phosphate	CARGILL--RIVERVIEW FACILITY	CARGILL FERTILIZER, INC.	RIVERVIEW FACILITY-CARGILL
0250281006AC	24-Jun-99	TAL	Miscellaneous	MIAMI DADE W&SD / HIALEAH & PRESTON WTPS	MIAMI-DADE WATER & SEWER DEPARTMENT	PSD FOR JE PRESTON WATER TP
0170004006AC	30-Jun-99	TAL	Electric Utility / RRF	CRYSTAL RIVER POWER PLANT	PROGRESS ENERGY FLORIDA, INC.	FPC-CRYSTAL RIVER PLANT

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1070005006AC	30-Jun-99	TAL	Pulp and Paper / Wood Products	GEORGIA-PACIFIC CORP. PULP/PAPER MILL	GEORGIA-PACIFIC CORP. PULP/PAPER MILL	GA. PACIFIC-PALATKA MILL
0310045003AC	14-Jul-99	TAL	Electric Utility / RRF	NORTHSIDE/SJRPP	JEA	UNITS 1 & 2 REPOWERING PROJECT
0250314002AC	15-Jul-99	TAL	Miscellaneous	MIAMI DADE W&SD / ALEXANDER ORR WTP	MIAMI-DADE WATER & SEWER DEPT	WATER TREATMENT PLANT
0710002005AC	20-Jul-99	TAL	Electric Utility / RRF	FORT MYERS POWER PLANT	FLORIDA POWER & LIGHT (PFM)	'T. MYERS PLANT, FP&L
0850001005AC	20-Jul-99	TAL	Electric Utility / RRF	FPL / MARTIN POWER PLANT	FLORIDA POWER & LIGHT (PMR)	FPL-MARTIN PLANT
1070014003AC	20-Jul-99	TAL	Electric Utility / RRF	PUTNAM POWER PLANT	FLORIDA POWER & LIGHT (PPN)	FPL-PUTNAM PLANT
0330260001AC	10-Sep-99	TAL	Pulp and Paper / Wood Products	MCDavid SOFTWOOD CONVERTING FACILITY	INTERNATIONAL PAPER COMPANY	CHAMPION INT'L CORP/PSD-FL-271
1270009004AC	14-Sep-99	TAL	Electric Utility / RRF	SANFORD POWER PLANT	FLORIDA POWER & LIGHT (PSN)	SANFORD POWER PLANT - FP&L
0310157004AC	28-Sep-99	TAL	Primary / Secondary Metals	AMERISTEEL, JACKSONVILLE MILL DIV.	AMERISTEEL, JACKSONVILLE MILL DIV.	AMERISTEEL-PSD-FL-261
0490015002AC	8-Oct-99	TAL	Electric Utility / RRF	HARDEE POWER STATION	HARDEE POWER PARTNERS	ADD UNIT 2B
0310485001AC	14-Oct-99	TAL	Electric Utility / RRF	BRANDY BRANCH FACILITY	JEA	JEA BRANDY BRANCH FACILITY
0990568001AC	4-Nov-99	TAL	Electric Utility / RRF	LWG PLANT	LAKE WORTH GENERATION L.L.C.	NEW LAKE WORTH GEN. PLANT
0510003009AC	19-Nov-99	TAL	Sugar	U.S. SUGAR CLEWISTON MILL AND REFINERY	U.S. SUGAR CORP. CLEWISTON MILL	BOILER NO. 4 MOD., PART 1
0090180001AC	22-Nov-99	TAL	Electric Utility / RRF	OLEANDER POWER PROJECT	OLEANDER POWER PROJECT, LP	OLEANDER POWER PROJECT
0970014003AC	9-Dec-99	TAL	Electric Utility / RRF	INTERCESSION CITY PLANT	PROGRESS ENERGY FLORIDA, INC.	ADD 3 NEW SIMPLE CYCLE CTS
0490043001AC	16-Dec-99	TAL	Electric Utility / RRF	VANDOLAH POWER PROJECT	VANDOLAH POWER COMPANY, LLC	IPS AVON PARK CORPORATION
0970043007AC	20-Dec-99	TAL	Electric Utility / RRF	KUA CANE ISLAND POWER PARK	KISSIMMEE UTILITY AUTHORITY	KUA - UNIT 1 PMT AMENDMENT
0970071001AC	28-Dec-99	TAL	Electric Utility / RRF	RELIANT ENERGY OSCEOLA	RELIANT ENERGY OSCEOLA, LLC	RELIANT ENERGY OSCEOLA

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1010373001AC	13-Jan-00	TAL	Electric Utility / RRF	SHADY HILLS GENERATING STATION	SHADY HILLS POWER COMPANY, L.L.C.	IPS-AVON PARK - SHADY HILLS
0570039006AC	24-Feb-00	TAL	Electric Utility / RRF	BIG BEND STATION	TAMPA ELECTRIC COMPANY	INLET FOGGERS FOR CTS 2 & 3
0010005002AC	24-Feb-00	TAL	Electric Utility / RRF	JOHN R KELLY POWER PLANT	GAINESVILLE REGIONAL UTILITIES	GRU-KELLY GEN. STATION
0970001003AC	2-Mar-00	TAL	Electric Utility / RRF	KUA - ROY B HANSEL POWER PLANT	KISSIMMEE UTILITY AUTHORITY	INLET FOGGERS
0310067004AC	9-Mar-00	TAL	Pulp and Paper / Wood Products	STONE CONTAINER CORP., JACKSONVILLE MILL	STONE CONTAINER CORPORATION	SCC-BOILER STEAM RATE INCREASE
1270028004AC	31-Mar-00	TAL	Electric Utility / RRF	DEBARY FACILITY	PROGRESS ENERGY FLORIDA, INC.	FPC-INLET FOGGING-DEBARY
1270164001AC	13-Apr-00	TAL	Electric Utility / RRF	FIELD STREET GENERATING PLANT	UTILITIES COMMISSION, CITY OF NEW SMYRNA	UTILITIES COMM. CITY OF NSB
0850102003AC	20-Apr-00	TAL	Electric Utility / RRF	INDIANTOWN COGENERATION PLANT	INDIANTOWN COGENERATION, L.P.	CO2 RECOVERY PLANT
0090093003AC	11-May-00	TAL	Plastics / Boatbuilding	MERRITT ISLAND FACILITY/CAPE CANAVERAL	SEA RAY BOATS INC	PLEASURE CRAFT MFG
1210465001AC	1-Jun-00	TAL	Cement	SUWANNEE AMERICAN CEMENT	SUWANNEE AMERICAN CEMENT CO.	SUWANNEE AMERICAN CEMENT PLANT
0970073001AC	5-Jun-00	TAL	Electric Utility / RRF	PALMETTO POWER LLC	PALMETTO POWER LLC	NEW PALMETTO POWER PLANT
0270016001AC	30-Jun-00	TAL	Electric Utility / RRF	DESOTO COUNTY ENERGY PARK	DESOTO COUNTY GENERATING COMPANY, LLC	IPS DESOTO POWER PROJECT
0850001008AC	24-Jul-00	TAL	Electric Utility / RRF	FPL / MARTIN POWER PLANT	FLORIDA POWER & LIGHT (PMR)	ADD 2 NEW SIMPLE CYCLE CTS
0050014002AC	28-Jul-00	TAL	Electric Utility / RRF	LANSING SMITH PLANT	GULF POWER COMPANY	UNIT 3 PSD PERMIT
0570373009AC	31-Jul-00	TAL	Miscellaneous	HOWARD F. CURREN AWT PLANT	CITY OF TAMPA-DEPT OF SANITARY SEWERS	WAUKESHA ENGINE GEN. 7 & 8
0970043008AC	21-Aug-00	TAL	Electric Utility / RRF	KUA CANE ISLAND POWER PARK	KISSIMMEE UTILITY AUTHORITY	KUA UNIT NO. 2 - INLET FOGGERS
1050223009AC	22-Aug-00	TAL	Electric Utility / RRF	TIGER BAY COGENERATION FACILITY	PROGRESS ENERGY FLORIDA, INC.	IPC TIGER BAY
0250407003AC	26-Sep-00	TAL	Plastics / Boatbuilding	NAILITE INTERNATIONAL	NAILITE INTERNATIONAL	NAILITE INTERNATIONAL, INC.

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1050046013AC	13-Oct-00	TAL	Phosphate	CARGILL FERTILIZER - BARTOW	CARGILL FERTILIZER, INC.	NO. 4 PAP FILTER MODIFICATION
0770010001AC	13-Oct-00	TAL	Pulp and Paper / Wood Products	GP-HOSFORD OSB PLANT	GA-PACIFIC CORP.	GA-PACIFIC HOSFORD OSB PLANT
0870004004AC	16-Nov-00	TAL	Electric Utility / RRF	FLORIDA KEYS ELECTRIC COOP ASSOC	FLORIDA KEYS ELECTRIC COOP ASSOC	FLA. KEYS ELECTRIC
0470002039AC	22-Nov-00	TAL	Phosphate	WHITE SPRS AG CHEM-SR/SC CMLPX	WHITE SPRINGS AGRICULTURAL CHEMICALS, INC	WHITE SPRINGS AGRICULTURAL PRD
0510015007AC	4-Dec-00	TAL	Citrus	SOUTHERN GARDENS CITRUS PROCESSING CORP.	SOUTHERN GARDENS CITRUS PROCESSING CORP.	SOUTHERN GARDENS CITRUS PROC.
0710002009AC	22-Dec-00	TAL	Electric Utility / RRF	FORT MYERS POWER PLANT	FLORIDA POWER & LIGHT (PFM)	FP&L FORT MYERS PLANT
0810194001AC	5-Feb-01	TAL	Electric Utility / RRF	CPV GULF COAST, LTD.	CPV GULF COAST, LTD.	CPV GULF COAST, LTD.
1050051009AC	6-Feb-01	TAL	Phosphate	U.S. AGRI-CHEMICALS - FT. MEADE	U.S. AGRI-CHEMICALS CORPORATION	SULFUIC ACID PLANTS 1 & 2
0990005007AC	14-Feb-01	TAL	Sugar	OKEELANTA CORP	OKEELANTA CORP	OKEELANTA BOILER NO. 16
1110099002AC	14-Feb-01	TAL	Electric Utility / RRF	MIDWAY DEVELOPMNT-ST.LUCIE ELEC.GEN.PLANT	MIDWAY DEVELOPMENT COMPANY, L.L.C.	MIDWAY ENERGY CENTER
0510003010AC	8-Mar-01	TAL	Sugar	U.S. SUGAR CLEWISTON MILL AND REFINERY	U.S. SUGAR CORP. CLEWISTON MILL	BOILER NO. 4 MOD., PART 2
1110004003AC	26-Mar-01	TAL	Citrus	TROPICANA PRODUCTS	TROPICANA PRODUCTS, INC	TROPICANA PRODUCTS-FT. PIERCE
0570040013AC	30-Mar-01	TAL	Electric Utility / RRF	F.J. GANNON STATION	TAMPA ELECTRIC COMPANY	TECO BAYSIDE POWER STATION
0310045006AC	4-Apr-01	TAL	Electric Utility / RRF	NORTHSIDE/SJRPP	JEA	JEA NORTHSIDE STATION
0310047009AC	4-Apr-01	TAL	Electric Utility / RRF	KENNEDY	JEA	KENNEDY STATION CTS 3,4,AND 5
0610029004AC	4-Apr-01	TAL	Electric Utility / RRF	CITY OF VERO BEACH MUNICIPAL UTILITIES	CITY OF VERO BEACH	COMB. CYCLE COMBUSTION TURBINE
0570038002AC	20-Apr-01	TAL	Electric Utility / RRF	HOOKERS POINT STATION	TAMPA ELECTRIC COMPANY	TECO HOOKERS POINT STATION
0950053007AC	24-Apr-01	TAL	Citrus	LOUIS DREYFUS CITRUS	LOUIS DREYFUS CITRUS, INC.	CHANGE VOC/PRODUCTION LIMITS

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1110101001AC	3-May-01	TAL	Electric Utility / RRF	ATLANTIC GENERATING STATION	ORION POWER ATLANTIC, LTD.	CPV ATLANTIC
0010001003AC	18-May-01	TAL	Electric Utility / RRF	U OF FL COGEN	PROGRESS ENERGY FLORIDA, INC.	FPC U/FL COGENERATION PLANT
0990016004AC	31-May-01	TAL	Sugar	ATLANTIC SUGAR MILL	ATLANTIC SUGAR ASSOCIATION	ATLANTIC BOILER 5 MODIFICATION
1050234004AC	4-Jun-01	TAL	Electric Utility / RRF	HINES ENERGY COMPLEX	PROGRESS ENERGY FLORIDA, INC.	FPC HINES ENERGY-POWER BLOCK 2
1050004010AC	26-Jun-01	TAL	Electric Utility / RRF	C.D. MCINTOSH, JR. POWER PLANT	LAKELAND ELECTRIC	C.D. MCINTOSH, JR.,UNIT NO.5
1050221004AC	26-Jun-01	TAL	Electric Utility / RRF	AUBURNDALE COGENERATION FACILITY	CALPINE/AUBURNDALE POWER PARTNERS, LP	CALPINE/AUBURNDALE PEAKER PROJ
1050334001AC	5-Jul-01	TAL	Electric Utility / RRF	OSPREY ENERGY CENTER	CALPINE ENERGY & FINANCE COMPANY, L.P.	OSPREY ENERGY CNTR, INIT. PSD
1070026003AC	9-Jul-01	TAL	Pulp and Paper / Wood Products	FLORIDA FURNITURE INDUSTRIES, INC. NO. 3	FLORIDA FURNITURE INDUSTRIES, INC.	FLORIDA FURNITURE INDUSTRIES
0570008026AC	8-Aug-01	TAL	Phosphate	CARGILL--RIVERVIEW FACILITY	CARGILL FERTILIZER, INC.	CARGILL-TAMPA PLANT
1050349001AC	17-Aug-01	TAL	Electric Utility / RRF	CPV PIERCE POWER GENERATING FACILITY	CPV PIERCE, LTC.	CPV POWER GENERATING FACILITY
1050352001AC	20-Aug-01	TAL	Electric Utility / RRF	WINSTON PEAKING STATION	LAKELAND ELECTRIC	WINSTON PEAKING STATION
0570040012AC	22-Aug-01	TAL	Electric Utility / RRF	F.J. GANNON STATION	TAMPA ELECTRIC COMPANY	TECO GANNON UNITS 1, 2 AND 4
1050023014AC	23-Aug-01	TAL	Citrus	CUTRALE CITRUS JUICES USA,INC	CUTRALE CITRUS JUICES USA,INC	CUTRALE CITRUS JUICES USA, INC
0990021004AC	5-Sep-01	TAL	Miscellaneous	PRATT & WHITNEY AIRCRAFT	UNITED TECHNOLOGIES CORPORATION	LOX/KEROSENE ROCKET ENG. STAND
0830070003AC	18-Sep-01	TAL	Miscellaneous	FGTC STATION 17, MARION COUNTY	FLORIDA GAS TRANSMISSION COMPANY	FGT STATION NO.17 MODIFICATION
0950137002AC	26-Sep-01	TAL	Electric Utility / RRF	STANTON ENERGY CENTER	ORLANDO UTILITIES COMMISSION	OUC-STANTON ENERGY CENTER
0810007009AC	10-Oct-01	TAL	Citrus	TROPICANA PRODUCTS, INC.	TROPICANA PRODUCTS, INC.	BRADENTON CITRUS PROCESSING
0990005009AC	30-Oct-01	TAL	Sugar	OKEELANTA CORP	OKEELANTA CORP	OKEELANTA BOILER 16 GAS CONV

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1050019007AC	9-Nov-01	TAL	Citrus	FROSTPROOF CITRUS PROCESSING FACILITY	CARGILL JUICE NORTH AMERICA, INC.	BOILER MODIFICATIONS
0570008036AC	21-Nov-01	TAL	Phosphate	CARGILL--RIVERVIEW FACILITY	CARGILL FERTILIZER, INC.	CARGILL FERTILIZER - RIVERVIEW
0570040015AC	9-Jan-02	TAL	Electric Utility / RRF	F.J. GANNON STATION	TAMPA ELECTRIC COMPANY	F.J.GANNON/BAYSIDE STATION
1110103001AC	16-Jan-02	TAL	Electric Utility / RRF	CPV CANA POWER GENERATING FACILITY	CPV CANA, LTD.	CPV CANA POWER GENERATING FAC.
1110004004AC	28-Jan-02	TAL	Citrus	TROPICANA PRODUCTS	TROPICANA PRODUCTS, INC	TROPICANA PRODUCTS- FT. PIERCE
0970014006AC	30-Jan-02	TAL	Electric Utility / RRF	INTERCESSION CITY PLANT	PROGRESS ENERGY FLORIDA, INC.	FPC-INTERCESSION CITY
0990332014AC	31-Jan-02	TAL	Electric Utility / RRF	OKEELANTA COGENERATION PLANT	NEW HOPE POWER PARTNERSHIP	OKPLP CO/SO2 MODIFICATION
1050233007AC	5-Feb-02	TAL	Electric Utility / RRF	POLK POWER STATION	TAMPA ELECTRIC COMPANY	POLK POWER STATION
0570008039AC	6-Feb-02	TAL	Phosphate	CARGILL--RIVERVIEW FACILITY	CARGILL FERTILIZER, INC.	CARGILL FERTILIZER - RIVERVIEW
0250014008AC	1-Mar-02	TAL	Cement	CSR RINKER PLANT	CSR RINKER MATERIALS CORPORATION.	RINKER MATERIALS CORPORATION
1050051015AC	15-Mar-02	TAL	Phosphate	U.S. AGRI-CHEMICALS - FT. MEADE	U.S. AGRI-CHEMICALS CORPORATION	U.S. AGRI-CHEMICALS FT. MEADE
1050046015AC	20-Mar-02	TAL	Phosphate	CARGILL FERTILIZER - BARTOW	CARGILL FERTILIZER, INC.	CARGILL FERTILIZER - BARTOW
0310485003AC	28-Mar-02	TAL	Electric Utility / RRF	BRANDY BRANCH FACILITY	JEA	BRANDY BRANCH GENERATING STA.
0950053008AC	18-Apr-02	TAL	Citrus	LOUIS DREYFUS CITRUS	LOUIS DREYFUS CITRUS, INC.	LOUIS DREYFUS CITRUS, INC.
0570040016AC	22-Apr-02	TAL	Electric Utility / RRF	F.J. GANNON STATION	TAMPA ELECTRIC COMPANY	F.J.GANNON STATION
0510015011AC	24-May-02	TAL	Citrus	SOUTHERN GARDENS CITRUS PROCESSING CORP.	SOUTHERN GARDENS CITRUS PROCESSING CORP.	SOUTHERN GARDENS CITRUS PROCES
1050059036AC	12-Jul-02	TAL	Phosphate	IMC PHOSPHATES COMPANY (NEW WALES)	IMC PHOSPHATES COMPANY	IMC NEW WALES

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0571279001AC	12-Aug-02	TAL	Miscellaneous	FGTC STATION NO. 27, HILLSBOROUGH COUNTY	FLORIDA GAS TRANSMISSION COMPANY	FGT COMPRESSOR STATION NO. 27
0050009005AC	5-Sep-02	TAL	Pulp and Paper / Wood Products	PANAMA CITY MILL	STONE CONTAINER CORPORATION	STONE CONTAINER PANAMA CTY MIL
1050045006AC	13-Sep-02	TAL	Citrus	BARTOW CITRUS PRODUCTS, LLC.	BARTOW CITRUS PRODUCTS, LLC.	PEACE RIVER COLD STORAGE
0570038004AC	7-Oct-02	TAL	Electric Utility / RRF	HOOKERS POINT STATION	TAMPA ELECTRIC COMPANY	TECO HOOKERS POINT STATION
1050231007AC	25-Oct-02	TAL	Electric Utility / RRF	ORANGE COGENERATION FACILITY	ORANGE COGENERATION LIMITED PARTNERSHIP	ORANGE COGENERATION, L.P.
0850002004AC	28-Oct-02	TAL	Citrus	LOUIS DREYFUS CITRUS / INDIANTOWN PLANT	LOUIS DREYFUS CITRUS, INC.	LOUIS DREYFUS CITRUS INDIANTOW
0250314005AC	30-Oct-02	TAL	Miscellaneous	MIAMI DADE W&SD / ALEXANDER ORR WTP	MIAMI-DADE WATER & SEWER DEPT	WATER TREATMENT PLANT
0010087006AC	11-Dec-02	TAL	Cement	THOMPSON S. BAKER CEMENT PLANT	FLORIDA ROCK INDUSTRIES, INC.	FLORIDA ROCK INDUSTRIES
1050352003AC	9-Jan-03	TAL	Electric Utility / RRF	WINSTON PEAKING STATION	LAKELAND ELECTRIC	LAKELAND ELECTRIC
0010001004AC	20-Feb-03	TAL	Electric Utility / RRF	U OF FL COGEN	PROGRESS ENERGY FLORIDA, INC.	FL POWER-U/FL COGEN
0810010006AC	15-Apr-03	TAL	Electric Utility / RRF	MANATEE POWER PLANT	FLORIDA POWER & LIGHT (PMT)	FPL MANATEE PLANT
0850001010AC	16-Apr-03	TAL	Electric Utility / RRF	FPL / MARTIN POWER PLANT	FLORIDA POWER & LIGHT (PMR)	FPL MARTIN UNIT 8 CC GT
0510003018AC	6-Jun-03	TAL	Sugar	U.S. SUGAR CLEWISTON MILL AND REFINERY	U.S. SUGAR CORP. CLEWISTON MILL	CLEWISTON BLR 4 & 7, OIL MOD
0310485006AC	6-Jun-03	TAL	Electric Utility / RRF	BRANDY BRANCH FACILITY	JEA	JEA BRANDY BRANCH
1070005019AC	24-Jun-03	TAL	Pulp and Paper / Wood Products	GEORGIA-PACIFIC CORP. PULP/PAPER MILL	GEORGIA-PACIFIC CORP. PULP/PAPER MILL	GEORGIA-PACIFIC PALATKA
1050023015AC	5-Aug-03	TAL	Citrus	CUTRALE CITRUS JUICES USA, INC	CUTRALE CITRUS JUICES USA, INC	CUTRALE CITRUS JUICES USA, INC
0710002014AC	14-Aug-03	TAL	Electric Utility / RRF	FORT MYERS POWER PLANT	FLORIDA POWER & LIGHT (PFM)	FORT MYERS POWER PLANT
1270009009AC	4-Sep-03	TAL	Electric Utility / RRF	SANFORD POWER PLANT	FLORIDA POWER & LIGHT (PSN)	SANFORD PLANT FP&L

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PERMIT NUMBER	ISSUE DATE	PERMIT OFFICE	IMPACT STUDY CATEGORY	SITE NAME	OWNER/COMPANY NAME	PROJECT NAME
1050234006AC	19-Sep-03	TAL	Electric Utility / RRF	HINES ENERGY COMPLEX	PROGRESS ENERGY FLORIDA, INC.	HINES ENERGY - POWER BLOCK 3
0710119002AC	13-Oct-03	TAL	Miscellaneous	LEE CO. SOLID WASTE RESOURCE REC. FAC.	LEE COUNTY DEPT. OF SOLID WASTE MGT.	LEE COUNTY ENERGY RECOVERY FAC
0990332016AC	27-Oct-03	TAL	Electric Utility / RRF	OKEELANTA COGENERATION PLANT	NEW HOPE POWER PARTNERSHIP	OKEELANTA COGEN., HI INCREASE
0510003021AC	21-Nov-03	TAL	Sugar	U.S. SUGAR CLEWISTON MILL AND REFINERY	U.S. SUGAR CORP. CLEWISTON MILL	USSC CLEWISTON BOILER 8
Tallahassee (headquarters) count 118						
Total count 180						