Environmental Permitting

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What is a Permit

- A permit is a legally binding "contract" between a company which emits pollutants and the government (which represents the public interest).
- Permits grant "permission" for the source to operate so long as they meet the terms and conditions in the permit.
- Permits outline the state and federal requirements that apply, including emission limits, recordkeeping, reporting, testing, and often operating conditions.
- There are some exemptions from permit requirements

Part I
APPLICABLE LIMITATIONS AND SPECIFIC CONDITIONS
SECTION I. STACKS/PROCESSES

I. A. S12, I10 - BLOWDOWN (REFINERY) FLARE - PERMIT # 95-SDD-120A-OP			
POLLUTANT	**a. LIMITATIONS**	**b. COMPLIANCE DEMONSTRATION**	**c. REFERENCE TEST METHODS, RECORDKEEPING AND MONITORING REQUIREMENTS**
1. Sulfur Dioxide	(1) 39.3 pounds/hour sulfur dioxide averaged over any 12-hour period **[ss. NR 417.07(5), NR 407.09(2)(d), Wis. Adm. Code, and 95-SDD-120A-OP]**	(1) Stack Parameters: These requirements are included because the source was reviewed with these stack parameters and it was determined that no increments or ambient air quality standards will be violated when constructed as proposed. (a) The stack height shall be at least 179 feet above ground level. (b) The stack inside diameter at the outlet may not exceed 2.0 feet. (c) The stack may not be equipped with a rainhat or other device which impedes the upward flow of the exhaust gases. **[s. 285.65(3), Stats. and s. NR 406.10, Wis. Adm. Code]** (2) The permittee shall comply with the most recent department approved hydrogen sulfide monitoring plan. Approval shall be in writing only. **[s. NR 417.05, Wis. Adm. Code]** (3) The permittee may at any time submit written amendments to the approved hydrogen sulfide monitoring plan. The permittee may not change the existing plan without written Department approval. All such requests for changes shall be submitted to the Superior Area Office. **[s. NR 417.05, Wis. Adm. Code]**	(1) Reference Test Method for Sulfur Dioxide Emissions: Whenever compliance emission testing is required, an appropriate US EPA Method approved by the Department in writing shall be used to demonstrate compliance. **[s. NR 439.06(2)(a), Wis. Adm. Code]** (2) The permittee shall keep and maintain on site technical drawings, blueprints or equivalent records of the physical stack parameters. **[s. NR 439.04(1)(d), Wis. Adm. Code]**
2. Particulate Matter Emissions	(1) 0.60 pounds/MM Btu heat input **[ss. NR 415.06(1)(a), NR 407.09(2)(d), Wis. Adm. Code, and 95-SDD-120A-OP]**	(1) The permittee shall comply with the requirements of A.1.b.(1) at all times. **[s. 285.65(3), Stats. and ss. NR 406.10, and NR 407.09(2)(b), Wis. Adm. Code]**	(1) Reference Test Method for Particulate Matter Emissions: Whenever compliance emission testing is required, an appropriate US EPA Method approved by the Department in writing shall be used to demonstrate compliance. **[s. NR 439.06(1), Wis. Adm. Code]**

Permit History

- CAA of 1970
- New Source Permits
- WDNR Operation Permits-1985
- Clean Air Act Amendments of 1990

Why Do We Need Permits (THE BALANCE)

- A permit sets limits on the amounts of pollutants that a facility may emit so that the air and water remain clean and healthy, and yet allows facilities to continue to operate, which provides jobs and economic prosperity for communities.
- In addition, while protecting the environment, or preventing deterioration of the environment, it ensures that companies are treated the same to ensure fair competition (level playing field).

A Scary Little Example--

- What if a home furnace needed a permit like major emitters do?
  - Let's first assume we are building a NEW furnace.
  - It is a NEW SOURCE of emissions.

OK--How Do I Get One?

- Contact the permitting agency!
- Submit a permit application on the proper forms, and an application fee.
  - It would describe the furnace and estimate its emissions:
    - How big is it?
    - Does it Burn Natural Gas or fuel oil or coal?
    - What efficiency does it have
    - How are you going to operate it--hours of operation
    - What would be the potential emissions from it (SO2, Particulate, Nox,) or the PTE?

What Kind of Permit Do I Need?

(none in reality but…)

Construction (or Modification) Permits

- These ensure that a company builds equipment that meet the standards as set out in the law.
  - Individual requirements in the actual rules will be different depending on a few things:
    - Is it a NEW installation or a modification
    - How big is the facility (in emissions!)
    - Attainment Areas/ Non Attainment Areas
- This permit also allows for initial operation

New Source Review-NSR

- Permitting program for new or "modified" sources
  - PSD--these permits are for sources in areas with "good" air (meet NAAQS)
  - Non Attainment New Source Review--these permits are for sources that are in areas that don't meet the NAAQS (often abbreviated as simply NSR)
  - Minor Source (also "Synthetic Minor")

Construction/Operation Permit Requirements in NSR

- SOME TERMINOLOGY on TECHNOLOGY
  - RACT-Reasonably Achievable Control Technology
  - BACT-Best Achievable Control Technology
  - MACT-Maximum Achievable Control Technology
  - LAER-Lowest Achievable Emission Rate

What about those forms and the fee?

- There are many forms!
- For our example there might be a dozen?
- The fee depends on how much review is required and what kind of permit is required. $1500 right off the bat.

What's NEXT

- WDNR reviews the application and if the information is complete, and the permit is approvable, develops the preliminary determination (PD), and a first draft of the permit.
- The WDNR determines if the permit is allowable and then the draft permit and PD are "public noticed".
  - The public has 30 days to comment on the permit and the decision process that the WDNR used to determine if the permit should be issued as is, or if changes should be considered.

Adverse Public Comments?

- WDNR can address them
- A public hearing may need to be held
- Modifications to the permit may be made
- Might require another notice

Now Some Minor Negotiation:

- The agency might allow you to use a particular method of record keeping to prove you are meeting the permit limits, or a different method of reporting.
- The agency might add requirements to address a public comment. At this point you might have ideas that would work better for you than the original agency idea and you can propose them now.

Now you have a permit and you can begin construction

- OK--we got the thing built--now what?
- You can begin operating!
- Now we need to let the agency know we are done and get the operating permit.
  - You might have to do testing to make sure the equipment meets the limits imposed.
  - The original application is enough to get the permit.

What Are Operation Permits?

- Operation Permits
  - These ensure that a company meets the standards as set forth in the law when they ***operate*** their equipment.
  - Even most old equipment requires a permit to operate but the requirements in the law will differ.

Now We Can Continue to Operate Our Furnace!

- But--you must meet the limits and all other requirements in your permit!
- You may also have maintenance and operational requirements
  - OMM Plans
  - SSM Plans
  - Abatement Plans

In the News

- Routine Maintenance, Repair and Replacement (RMRR)
  - What if we already had a furnace and wanted to make changes to it?
    - What if it was in need of maintenance?
    - What if we wanted to install a more efficient burner?

Routine Maintenance and Repair

- Maintenance activities MAY require a permit!
  - What is "routine" maintenance
    - Changing your air filter is obviously a routine maintenance activity

Routine Maintenance and Repair

- Lets say we want to install a more efficient burner (uses less fuel for the same amount of HEAT)
- Changing out your burner MAY or MAY NOT be routine.
- It is a Physical Change? YES
- Does it increase emissions? MAYBE

Emissions Comparisons

- How do we compare emissions before and after a change?
  - Actual to potential
  - Actual to future actual
  - Cost considerations

New Requirements May Now Apply

- You made a physical change and it has the potential for more emissions so you may need to install new controls
  - Remember the BACT/RACT/LAER?
  - You might need to install a scrubber on your chimney—how much will that cost. Is it still worthwhile to get more efficient?
  - You can take an enforceable limit on operation of your furnace.

What About the Refinery?

- All This Applies to Murphy and MUCH More!
  - New Green Gas Unit
  - SRU Modifications
  - Future Projects
  - RMRR

Let's Not Forget About-

Water Permits

Waste Generator Requirements

Wetland Issues

General Construction Permits

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I Think You've Had Enough

The End