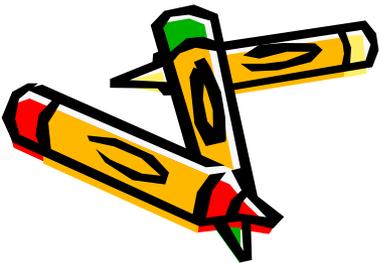
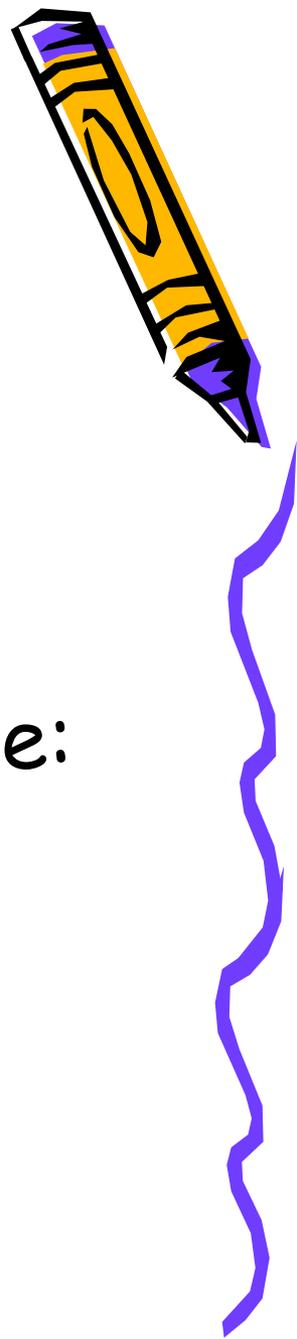


**ADEC MG3/MG9/GP3
Public Workshop**

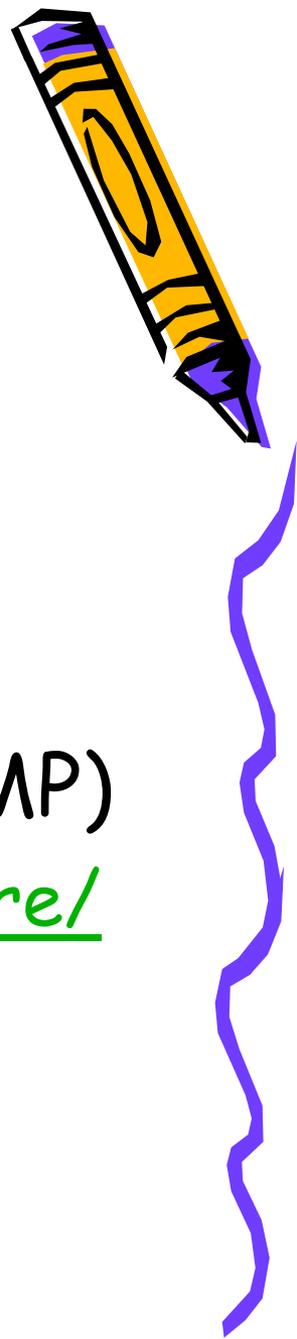
Asphalt Plants and Rock Crushers
Matt Wilkinson and Moses Coss

Who? & When

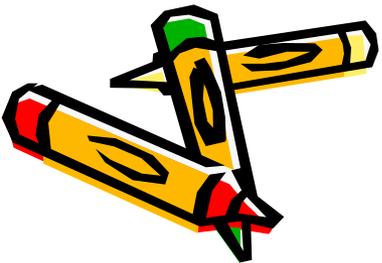
- Owners and Operators:
 - Asphalt plants
 - Rock Crushers
- Must have air quality permit before:
 - Constructing
 - Operating
 - Relocating



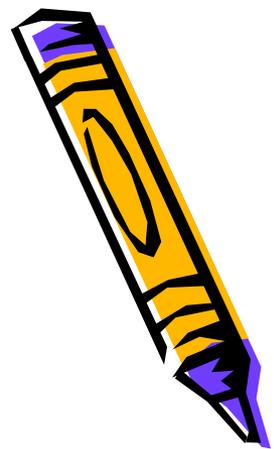
Where?



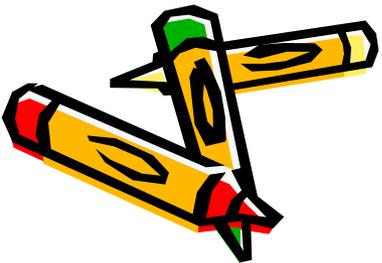
- Anywhere in Alaska!
- Relocation notices when you move
- Special requirements for Alaska Coastal Management Program (ACMP)
 - <http://alaskacoast.state.ak.us/Explore/alldistEPS.html>



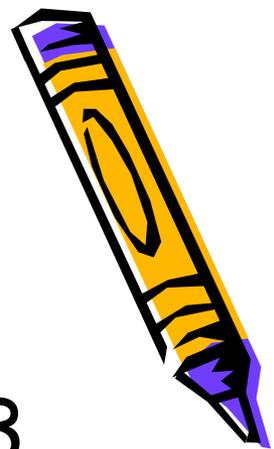
Why?



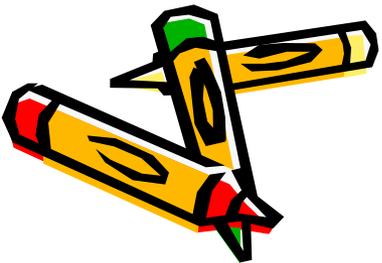
- It's State and Federal law!!
- Protect human health & environment
- Helps us track emissions inventory
- Cheaper than source-specific permit
- Level playing field; all w/same permit
- Easier to address public complaints



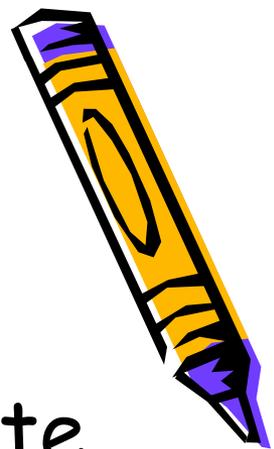
How?



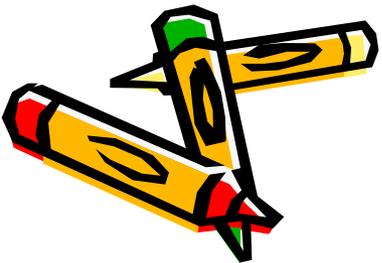
- Asphalt Plants need an MG3 or GP3
 - MG3, "minors," never expire
 - GP3, "majors," expire in 5 yrs (in 2014)
- Rock Crushers need an MG9
- See Section 1 qualifying criteria
- <http://www.dec.state.ak.us/air/ap/genperm.htm>



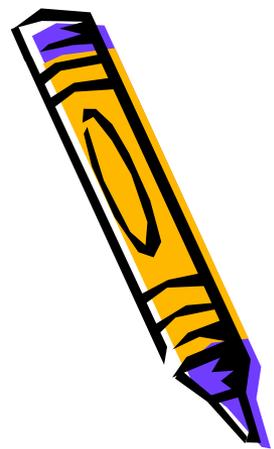
Old GP3 vs. New MG3



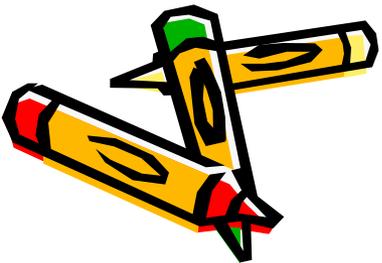
- Less cost (minor), no expiration date, simpler MR&R, less EPA oversight
- Need separate (but similar) permits for asphalt plants and rock crushers
- Annual compliance certification gone
- Most key requirements unchanged
- Format updated to keep up w/change



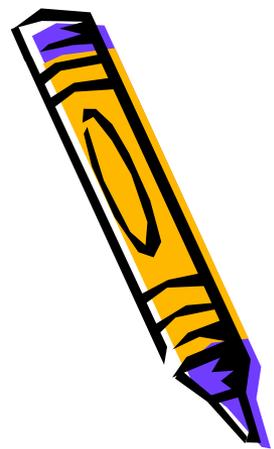
Cost? Shelly Betlej, (907) 269-6881



- See 18 AAC 50, Article 4
 - MG3 = \$857.32 (one-time fee)
 - MG9 = \$924.00 (one-time fee)
 - GP3 = about \$2,500? (permit not finished yet)
- Annual compliance review fees =
 - \$530/yr (MG3/MG9); \$530/yr (GP3)
- Annual emission fees
- Time & materials for technical assistance



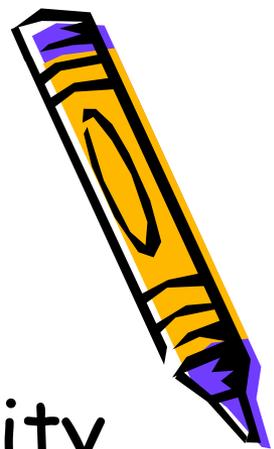
What?



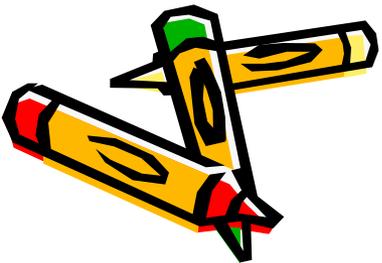
- Read your permit carefully!
 - Ignorance is not bliss—unknown can hurt
- Biggest challenge might be Section 2
 - Visible Emissions (“smoke school”)—all
 - Particulate Matter—asphalt plants
 - Sulfur emissions—remember paperwork
 - Distances away and fugitive dust plan



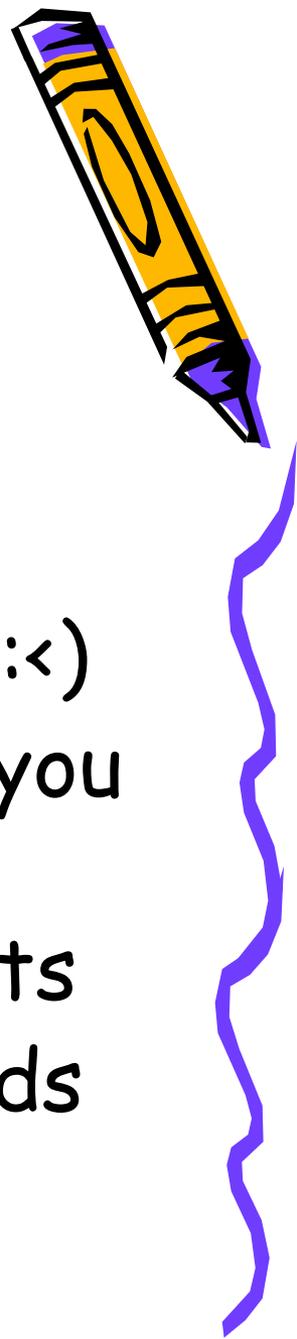
Smoke School?



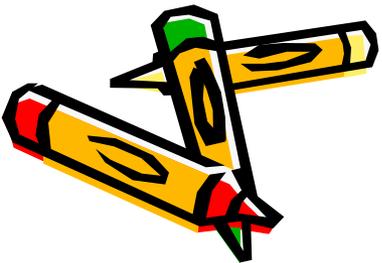
- Visible emissions measured in opacity
 - 0%, nothing; 100%, can't see; 20%, limit
- Two tests to get certified:
 - One-time, half-day class training/test
 - Semiannual field test to calibrate eyes
- From a stack or fugitive emissions
- Get staff certified (or contract it)



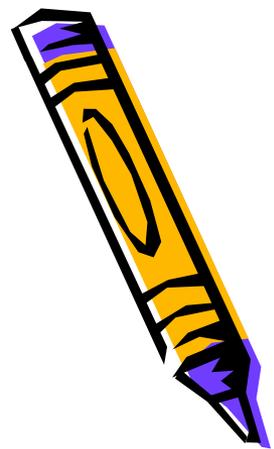
How to stay out of trouble?



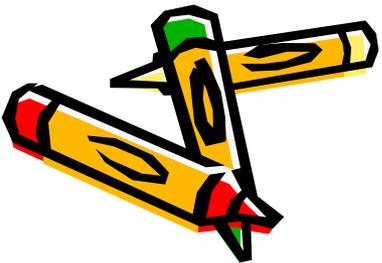
- Read and comply with your permit
- Pay all your invoices from ADEC
- Cooperate with inspectors w/smile:<)
- Monitor as required, Record what you monitor, Report on time (MR&R)
- Be a good neighbor, avoid complaints
- Squeaky clean operation and records



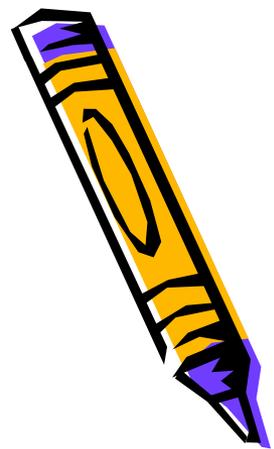
Reports



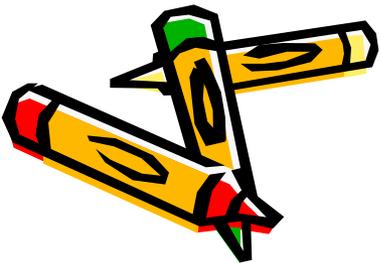
- Semiannual operating reports
- Annual compliance certification—GP3
- Excess emission/permit deviation
- Source test reports—MG3 and GP3
- Location Change and ACMP
- Annual emission calculations / fees



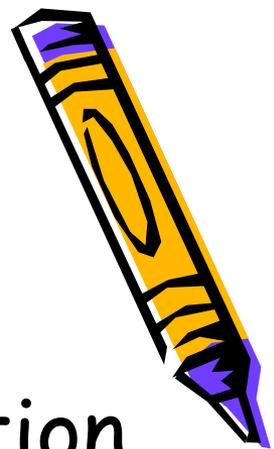
Emissions Calculations, what and why?



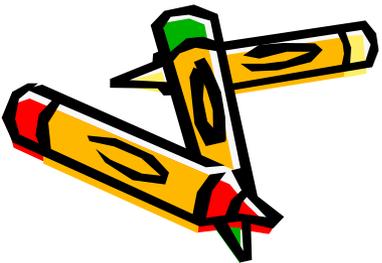
- Two purposes:
 - Potential to emit for classification
 - Major (≥ 100 tpy) or Minor (< 100 tpy)
 - Tpy = tons per year for each air pollutant
 - Actual emissions for fees (Section 12)
 - Asphalt plant or rock crusher
 - Diesel engines (excluding nonroad engines)
 - 5 air pollutants—CO, NO_x, PM, SO₂, & VOC



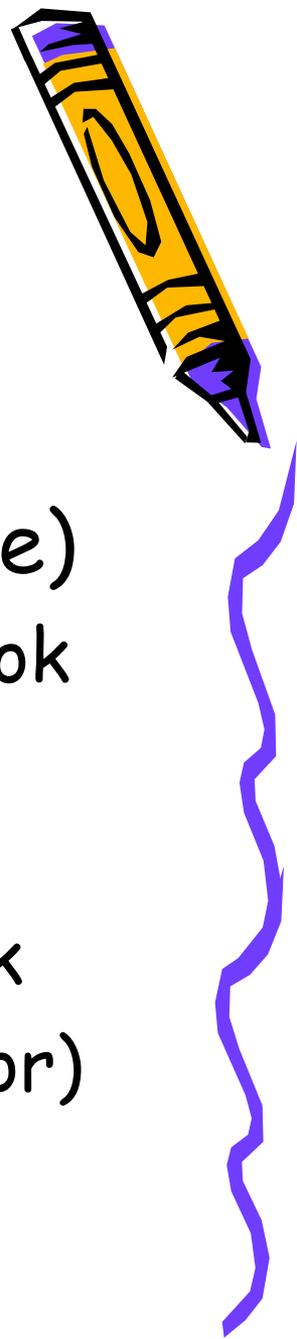
Actual Emissions Calculations plants and crushers, how?



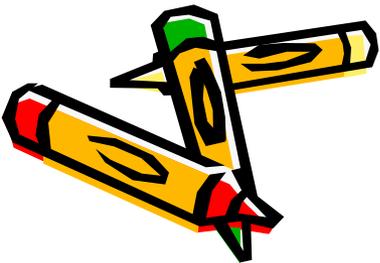
- Emissions = $(EF \times (\text{Hours of operation} \times RC)) / \text{lbs per ton}$
 - EF = emission factor from a table (look up by air pollutant and source type)
 - Hours of operation from your logbook
 - RC = rated capacity of your source in tons per hour (don't confuse with tpy)
 - Lbs per ton = 2,000 (conversion factor)



Actual Emissions Calculations, how—diesel engines?



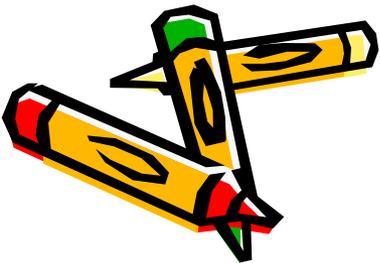
- Emissions = $((EF \times Hp) * \text{Hours of operation}) / \text{lbs per ton (preferable)}$
 - EF = emission factor from a table (look up by air pollutant and fuel type)
 - Hp = horsepower (engine rating)
 - Hours of operation from your logbook
 - Lbs per ton = 2,000 (conversion factor)



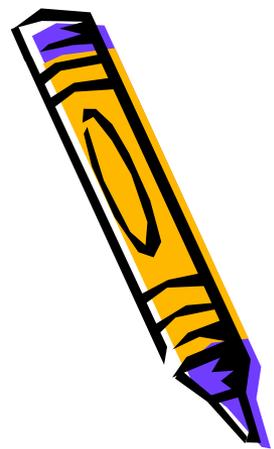
Actual Emissions Calculations, how—diesel engines?



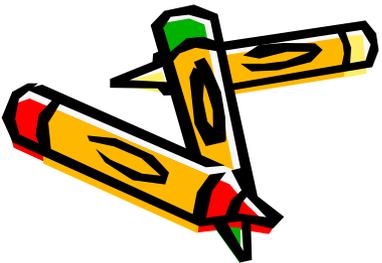
- Emissions = ((EF x MMBtu) x Hours of operation) / lbs per ton
 - EF = emission factor from a table (look up by air pollutant and fuel type)
 - MMBtu = fuel heat (not process heat)
 - MMBtu = #gal x about 0.14 MMBtu/gal
 - MMBtu = #MMscf x about 1,000 MMBtu/MMscf
 - Hours of operation from your logbook
 - Lbs per ton = 2,000 (conversion factor)



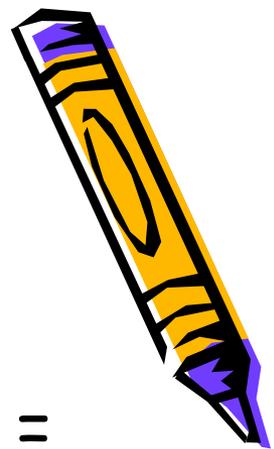
Assessable Emission Calculations, how?



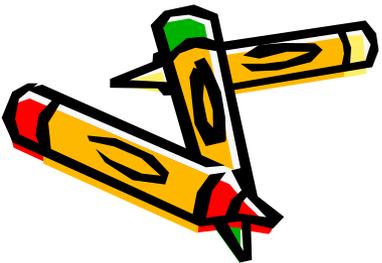
- Add to get 5 totals from all units
 - E.g., 7 tpy CO from asphalt plant + 5 tpy CO from one generator + 3 tpy CO from another generator = 15 tpy CO
 - Ditto for NO_x, PM, SO₂, & VOC
- Any total < 10 tpy is zero assessable for that air pollutant
- Multiply each total \geq 10 tpy times the \$/ton (18 AAC 50.410); add these costs
 - E.g., 15 tpy CO costs \$300/year if \$20/ton



U.S. EPA?

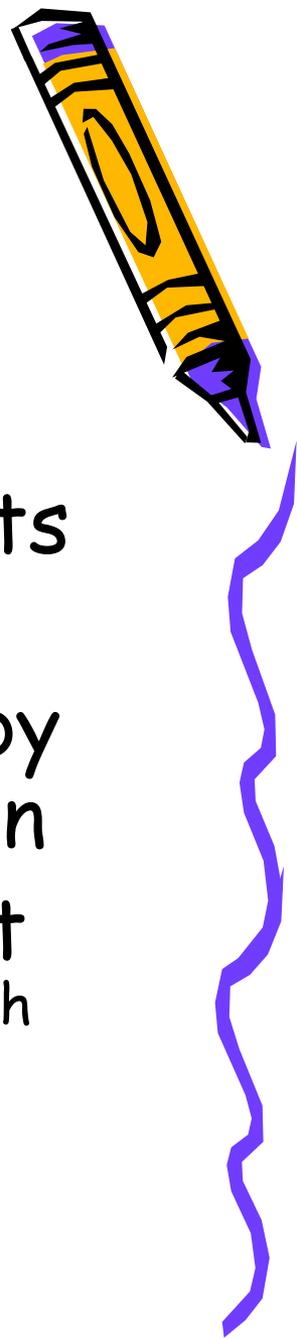


- Environmental Protection Agency (EPA) = ADEC's federal equivalent
- Oversees ADEC's Air Quality Program
- Can delegate to States, tribes, and cities
- NSPS 40 CFR 60 reports go to EPA
 - E.g., Subpart I—MG3, Subpart OOO—MG9, and Subparts IIII and JJJJ—diesel engines
- Can inspect you after showing credentials



Thanks for attending!

Questions??!



- Please don't leave until you feel comfortable with these new permits
- You can attend other public workshops this week in person or by phone for free without registration
- Compliance staff will facilitate last workshop in Fairbanks on April 30th

