



STATE OF NEW JERSEY
DEPARTMENT OF ENVIRONMENTAL PROTECTION

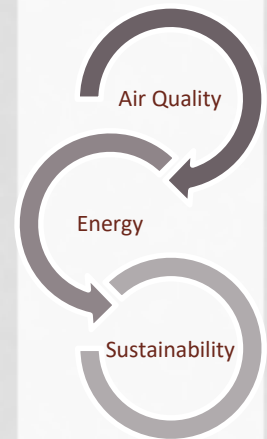


DIVISION OF AIR QUALITY

AIR QUALITY, ENERGY, AND SUSTAINABILITY

PLOT PLAN & RISK SCREENING WORKSHEET PRESENTATION

INDUSTRIAL STAKEHOLDERS GROUP 12/1/17



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PLOT PLAN

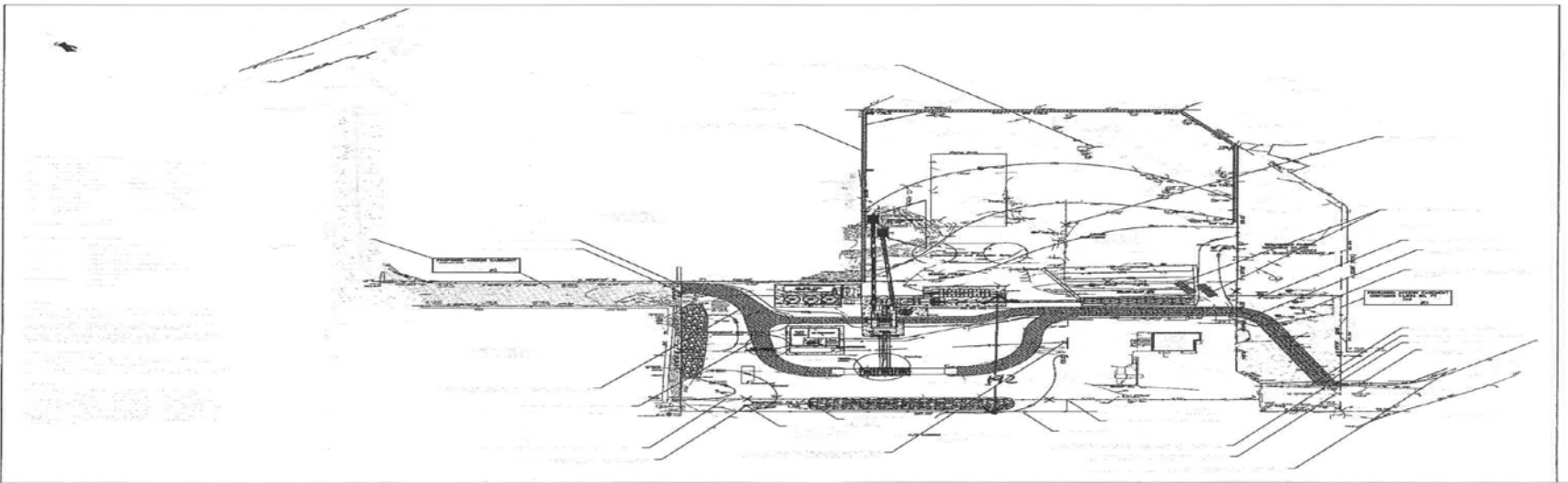
- N.J.A.C. 13:40-5.1(J)(n):
 - (j) No reproductions or photographic copies of a plan or survey shall be offered or issued by a licensee for use in any court, land transaction or filing in any public agency or office unless such copies shall bear the signature and impression seal of the licensed land surveyor.
 - (n) Maps prepared to show topographic data or planimetric data which also delineate property lines or right-of-way lines thereon shall be prepared by a licensed land surveyor.
- Standard requirements for Plot Plans submitted to any Department Bureau or any other State agencies

PLOT PLAN

- Necessary to conduct accurate air quality modeling impact and health risk assessments
- Required pursuant to:
 - N.J.A.C. 7:27-8.5 “ Air Quality Impact Analysis” for Preconstruction Permits
 - N.J.A.C. 7:27-22.8 “ Air Quality Simulation Modeling and Risk Assessment” for Operating Permits
- Requirements for Plot Plan
 - Listed in Technical Manual (TM)1002 “ Guidance on Preparing an Air Quality Modeling Protocol (Section 6.2)
 - TM 1002 is referenced in N.J.A.C. 7:27-8.5 and -22.8.

PLOT PLAN

- Plot Plans that do not conform with requirements
 - Consume resources of both Department and applicants
 - Delay completion of the review of permit applications



PLOT PLAN

- Plot Plan must be of sufficient detail
 - To enable a determination of Good Engineering Practice formula stack height
 - To enable a determination of potential for building downwash
- Plot Plan must also
 - Show location of all proposed emission points
 - Buildings and structures on-site
 - Facility Property and Fence Lines
 - Indication of true north
 - Nearby Residences and other sensitive receptors

PLOT PLAN

- Updates to Plot Plans are necessary
 - Should not rely solely on existing Plot Plans
 - Modeling of Trenton Trigen – New Mercer County Courthouse not taken into account on existing plot plans
 - Modeling of Merck Rahway/Linden - Newly constructed parking decks not included on existing plot plans
- Detailed list of Plot Plant requirements in Section 6.2, Technical Manual 1002

RISK SCREENING WORKSHEET

- <http://www.state.nj.us/dep/aqpp/risk.html>
- Calculates carcinogenic and non-carcinogenic risks based on HAP emissions, stack height, and stack distance to the property line
- If Worksheet shows negligible health risks, no further risk analysis is necessary
- If Worksheet shows significant risks
 - Determine if inputs to Worksheet can be modified to lower risk;
 - If not, conduct a refined risk assessment

RISK SCREENING WORKSHEET

- Recent changes made to Worksheet
- Sulfuryl fluoride added as a pollutant
 - Risk factors generated from California Pesticide Regulation, Toxic Air Contaminant (TAC) Assessment, "Health Risk Assessment", July 2006
 - Primarily used as a fumigant
 -
- Ethylene oxide Unit Risk Factor
 - Changed from $8.8E-5 \text{ ug/m}^3$ (CalEPA11) to $3E-3 \text{ ug/m}^3$ (USEPA-IRIS)
 - Two orders of magnitude more stringent

RISK SCREENING WORKSHEET

- n-Propyl Bromide is under consideration to be added as a pollutant
 - Potent neuro toxin
 - Potent animal carcinogen
 - EPA has determined n-propyl bromide may reasonably be anticipated to cause adverse health effects
 - 1/9/17 EPA published draft notice of the rationale for granting petitions to add n-propyl bromide to HAP list
- Models and assumptions used in Worksheet will be updated after draft TM 1002 and 1003 have undergone public comment period and are finalized