



Preliminary Environmental Analysis for PAR1168

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CEQA Applicability



- Purpose of CEQA
 - Analyze and disclose potential effects from a project
 - Identify mitigation and alternatives if warranted
- Activities undertaken by a Public Agency [CEQA Guidelines §15002(b)]
- The whole of an action that has reasonably foreseeable direct or indirect physical changes to the environment [CEQA Guidelines §15378]
- If not exempt, complete an initial study (IS)
 - Preliminary review of 17 environmental topic areas
 - Determine potential significance impacts
 - Circulated along with Notice of Preparation (NOP)

NOP/IS



- 2 environmental topics determined to have potential significant impacts:
 - Air Quality
 - Hazards and Hazardous Materials
- 33-day public review and comment period from December 13, 2013 to January 14, 2014
- 7 CEQA comment letters received
- Primary comments received
 - Carcinogenicity of tBAC
 - Concerns with GHG emissions from non-VOC foam product propellant

Environmental Analysis



- **Air Quality Impacts**
 - Potential secondary impacts from reformulations or replacements (with water or VOC exempt solvents) to comply with new VOC content limits
 - ✓ Anticipated criteria pollutant benefit
 - ✓ Potential adverse toxic impact from VOC-exempt solvents
 - ✓ Potential adverse odor impacts
 - ✓ Corresponding GHG impacts (e.g., reformulation of aerosol or foam products)
 - If significant, required to apply all feasible mitigation to reduce to less than significant
- **Hazard Impacts**
 - Potential flammability impacts

Toxic Impact Analysis



- **Potential Risk**

- Acute (short-term exposure) non-cancer risk
- Chronic (long-term exposure) non-cancer risk
- Carcinogenic cancer risk

- **Receptors**

- Offsite exposure (to resident or worker) – *standard R1401 analysis*
- Onsite worker (“occupational”) exposure
 - ✓ Exposed to indoor source
 - ✓ Exposed to outdoor source

Onsite Worker Exposure



- **Acute and Chronic Non-Cancer Impacts – *tBac and DMC***

- Rely on OSHA enforceable PEL (200 ppm)

- **Carcinogenic Impacts - *tBac***

- Potency Value
 - ✓ OSHA PEL is not based on carcinogenic impact
 - ✓ OEHHA published staff draft cancer potency for tBac
 - ✓ SCAQMD sent letter to OEHHA requesting status of tBac reevaluation (2/13/14)
- Risk Assessment Methodologies
 - ✓ If using toxicity and mass weighted comparison (mass x cancer potency factor), any tBac formulations would be an increase in cancer risk
 - ✓ Sensitivity runs with CARB’s “Box” model (designed for onsite workers) and EPA’s AERSCREEN – *trending similar results*
 - ✓ If exposed at OSHA Acute/Chronic PEL 200 ppm (40 years, 250 days/year), could cause 74,000/million cancer risk

Onsite Worker Exposure



- ▣ Risk Assessment Methodologies (continued)
 - ✓ Applying roofing scenarios (100-500 gals/day, 60% formulation), using EPA's AERMOD (with MET data), cancer risk >>1,000/million
- ▣ Risk Threshold
 - ✓ No adopted carcinogenic risk threshold for onsite workers
 - ✓ OEHHA published three target cancer risk levels for occupational exposure (Dec 2007)
 - 1/1,000 (translates to 1,000 in one million)
 - 1/10,000 (translates to 100 in one million)
 - 1/100,000 (translates to 10 in one million)

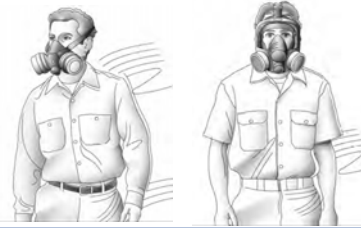
Usage and Formulation Limits



- Using OEHHA target cancer risk levels, back calculate allowable usage and percent formulation. For example, a 10,000 sq ft/day roofing project:

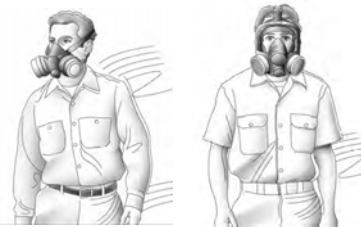
OEHHA Risk Targets	tBAc % Formulation	Allowable Usage
1000/million	60 %	5 gals/day
100/million	60 %	½ gal/day
10/million	60 %	0.05 gal/day
1000/million	3% - 0.6%	100-500 gals/day
100/million	0.3% - 0.06%	100-500 gals/day
10/million	0.03% - 0.006%	100-500 gals/day

Personal Protective Equipment (PPE)



- **Evaluating feasibility as a mitigation**
- **Equipment type**
 - ❑ Various types provided different levels of protection
 - ❑ Need to be applicable to organic vapors (e.g., not dust mask)
 - ❑ Realistic usage would be an air-purifying respirator
 - ❑ Exposure reduction based on Assigned Protection Factors (APF)
 - ✓ Half-mask has an APF=10; Full-mask has an APF =50
- **Enforcement**
 - ❑ Appropriate enforcement agency (*with training*)
 - ❑ Accordance with OSHA Respiratory Program (*Guidelines 1910.134(c)*)
 - ❑ Recordkeeping and reporting
 - ❑ Agency would need to be contacted as to the various job locations

Effects from PPE Usage



- ❑ Usage of the PPE would allow the worker to apply more roofing material formulated with tBAC or different formulation
- ❑ The APF allows that many times more usage (e.g., 5 gal/day limit with half-mask PPE (APF=10) would allow for 50 gals/day)
- ❑ APF =10 translates to 90% control efficiency
- ❑ APF = 50 translates to 98% control efficiency

OEHHA Risk Targets	tBAC % Formulation	Allowable Usage w/ APF =10 -50
1000/million	60 %	50 -250 gals/day
100/million	60 %	5 -25 gals/day
10/million	60 %	0.5 -2.5 gals/day

Challenges



- Selection of the worker risk threshold
- Practicability of tBAC exemption
 - For commercial roofing applications only
 - Enforceable limits on usage or reformulation (*based on appropriate target cancer risk level*)
 - ✓ Any requirement must be fully enforceable (*CEQA Guidelines §15126.4 (a)(2)*)
 - PPE viability
 - ✓ Any requirement must be fully enforceable (*CEQA Guidelines §15126.4 (a)(2)*)
 - Recordkeeping and reporting

Next Steps



- Determine the proposed project with CEQA alternatives
- Circulate the Draft EA with responses to comment letters on the NOP/IS
- Respond to comment letters received on Draft EA and include in Final EA
- Certify Final EA (*and, if required, a Mitigation Monitoring and Reporting Plan*) at the Public Hearing